I

*(Acts whose publication is obligatory)*

# COMMISSION DIRECTIVE 96/54/EC

## of 30 July 1996

## adapting to technical progress for the twenty-second time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances

**(Text with EEA relevance)**

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances [1], as last amended by Commission Directive 94/69/EC [2], and in particular Article 28 thereof,

Whereas Annex I to Directive 67/548/EEC contains a list of dangerous substances, their classification, labelling and where appropriate, their characterization by concentration limits and other parameters enabling their risk to human health and the environment to be assessed; whereas the list of dangerous substances in Annex I needs to be adapted in the light of present scientific and technical knowledge; whereas in consequence it is necessary to amend the foreword to Annex I so as to include notes relating to the labelling of preparations and a new group of organic substances in table B; whereas the list of dangerous substances in Annex I contains substances for which specific temporary classification and labelling derogations have been granted to Austria and Sweden by the Act of Accession of Austria, Finland and Sweden; whereas the Act of Accession provides for the review of the classification and labelling requirements of those substances; whereas the classifications of some of those substances have been reviewed accordingly;

Whereas Annex III to Directive 67/548/EEC contains a list of phrases indicating the nature of special risks attributed to dangerous substances and preparations; whereas a phrase indicating the danger to health of certain substances and preparations on aspiration needs to be introduced;

Whereas Annex V to Directive 67/548/EEC lays down the methods for the determination of the physico-chemical properties, toxicity and ecotoxicity of substances and preparations; whereas the adaptation to technical progress of that Annex is necessary;

Whereas Annex VI to Directive 67/548/EEC contains general criteria for the classification and labelling of dangerous substances and preparations; whereas criteria for substances and preparations dangerous to health if aspirated need to be introduced; whereas the criteria for sensitizing substances and preparations need to be amended; whereas criteria for the labelling of gas containers intended for propane, butane or liquefied petroleum gas (LPG) need to be introduced;

Whereas the provisions of this Directive are in accordance with the opinion of the Committee on the Adaption to Technical Progress of the Directives for the Elimination of Technical Barriers to Trade in Dangerous Substances and Preparations,

HAS ADOPTED THIS DIRECTIVE:

*Article 1*

Directive 67/548/EEC is hereby amended as follows:

1. Annex I is amended as follows:

   (a) nota 4 in the Foreword is replaced by the following text:

   *'Nota 4*

   Preparations containing these substances have to be classified as harmful with R65 if they meet the criteria in section 3.2.3 in Annex VI.';

[1] OJ No L 196, 16. 8. 1967, p. 1.
[2] OJ No L 381, 31. 12. 1994, p. 1.

(b) the following nota 5 is added:

*'Nota 5*

The concentration limits for gaseous preparations are expressed as volume per volume percentage.';

(c) the following special classification for organic substances is added to table B in the foreword to Annex I to Directive 67/548/EEC:

'647 Enzimas
Enzymer
Enzyme
Ένζυμα
Enzymes
Enzymes
Enzimi
Enzymen
Enzimas
Entsyymit
Enzymer';

(d) the entries in Annex I to this Directive replace the corresponding entries;

(e) the entries in Annex II to this Directive are added for the first time;

(f) the entries with the following numbers are deleted:

008-002-00-3
612-045-00-9
648-011-00-5
648-025-00-1
648-157-00-X
648-158-00-5
648-159-00-0
649-192-00-3

(g) the entries shown in Annex III to this Directive are amended by replacing all references to 'R 22' by 'R 65'.

2. The following phrase is added to Annex III:

**'R 65**

ES: Nocivo: si se ingiere puede causar daño pulmonar.

DA: Farlig: kan give lungeskade ved indtagelse.

DE: Gesundheitsschädlich: kann beim Verschlucken Lungenschäden verursachen.

EL: Επιβλαβές: μπορεί να προκαλέσει βλάβη στους πνεύμονες σε περίπτωση κατάποσης.

EN: Harmful: may cause lung damage if swallowed.

FR: Nocif: peut provoquer une atteinte des poumons en cas d'ingestion.

IT: Nocivo: può causare danni ai polmoni in caso di ingestione.

NL: Schadelijk: kan longschade veroorzaken na verslikken.

PT: Nocivo: pode causar danos nos pulmões se ingerido.

FI: Haitallista: voi aiheuttaa keuhkovaurion nieltäessä.

SV: Farligt: kan ge lungskador vid förtäring.'

3. Part B of Annex V is amended as follows:

(a) the text in Annex IV.A to this Directive replaces the heading and the general introduction to Part B: Methods for the Determination of Toxicity;

(b) the text in Annex IV.B to this Directive is inserted after chapter B.1 bis;

(c) the text in Annex IV.C to this Directive replaces chapter B.6;

(d) the text in Annex IV.D to this Directive replaces chapter B.7;

(e) the text in Annex IV.E to this Directive is added at the end.

4. Annex VI is amended by the texts set out in Annex V to this Directive, as indicated therein.

*Article 2*

1. Without prejudice to paragraph 2, not later than 31 May 1998, Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive. Member States shall immediately inform the Commission thereof.

2. Not later than 31 October 1997 the Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Annex V, points F, I and J of this Directive. Member States shall immediately inform the Commission therof.

3. When Member States adopt the provisions referred to in paragraphs 1 and 2, they shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

*Article 3*

This Directive shall enter into force on the 20th day following its publication in the *Official Journal of the European Communities.*

*Article 4*

This Directive is addressed to the Member States.

Done at Brussels, 30 July 1996.

*For the Commission*
Ritt BJERREGAARD
*Member of the Commission*

*ANEXO I — BILAG I — ANHANG I — ΠΑΡΑΡΤΗΜΑ I — ANNEX I — ANNEXE I — ALLEGATO I — BIJLAGE I — ANEXO I — LIITE I — BILAGA I*

| Cas No 630-08-0 | EEC No 211-128-3 | No 006-001-00-2 |
|---|---|---|

NOTA E

CO

ES: monóxido de carbono

DA: carbonmonoxid; kulilte

DE: Kohlenstoffmonoxid

EL: μονοξείδιο του άνθρακα

EN: carbon monoxide

FR: monoxyde de carbone

IT: monossido di carbonio; carbonio ossido

NL: koolstofmonoxide

PT: monóxido de carbono

FI: hiilimonoksidi

SV: kolmonoxid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F+; R 12 | Repr. Cat. 1; R 61 | T; R 23-48/23 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ T

**R:** 61-12-23-48/23

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 75-44-5 | EEC No 200-870-3 | No 006-002-00-8 |
|---|---|---|

$COCl_2$

ES: fosgeno

DA: phosgen

DE: Phosgen; Carbonylchlorid

EL: φωσγένιο

EN: phosgene; carbonyl chloride

FR: phosgène

IT: fosgene; carbonile cloruro

NL: fosgeen

PT: fosgeno

FI: fosgeeni; karbonyylikloridi

SV: fosgen; karbonyldiklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26 | C; R 34 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+

**R:** 26-34

**S:** (1/2-)9-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 5

| | |
|---|---|
| C ≥ 5 % | T+; R 26-34 |
| 1 % ≤ C < 5 % | T+; R 26-36/37/38 |
| 0,5 % ≤ C < 1 % | T; R 23-36/37/38 |
| 0,2 % ≤ C < 0,5 % | T; R 23 |
| 0,02 % ≤ C < 0,2 % | Xn; R 20 |
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| Cas No 7664-41-7 | EEC No 231-635-3 | No 007-001-00-5 |
|---|---|---|

$NH_3$

ES: amoniaco, anhidro

DA: ammoniak, vandfri

DE: Ammoniak, wasserfrei

EL: αμμωνία, άνυδρος

EN: ammonia, anhydrous

FR: ammoniac, anhydre

IT: ammoniaca, anidra

NL: ammoniak, watervrij

PT: amoníaco, anidro

FI: ammoniakki, vedetön

SV: ammoniak, vattenfri

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 10 | T; R 23 | C; R 34 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 10-23-34-50

**S:** (1/2-)9-16-26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 5

| | |
|---|---|
| C ≥ 5 % | T; R 23-34 |
| 0,5 % ≤ C < 5 % | Xn; R 20-36/37/38 |
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| Cas No 1336-21-6 | EEC No 215-647-6 | No 007-001-01-2 |
|---|---|---|

NOTA B

$NH_3$ .... %

ES: amoniaco .... %

DA: ammoniak .... %

DE: Ammoniak .... %

EL: αμμωνία .... %

EN: ammonia .... %

FR: ammoniac .... %

IT: ammoniaca .... %

NL: ammoniak .... %

PT: amoníaco .... %

FI: ammoniakki .... %

SV: ammoniaklösning .... %

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| C; R 34 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C N

**R:** 34-50

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 25 % | C; N; R 34-50 |
| 10 % ≤ C < 25 % | C; R 34 |
| 5 % ≤ C < 10 % | Xi; R 36/37/38 |
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| Cas No 10102-44-0 [1]<br>10544-72-6 [2] | EEC No 233-272-6 [1]<br>234-126-4 [2] | No 007-002-00-0 |
|---|---|---|

$NO_2$ [1] $N_2O_4$ [2]

ES: dióxido de nitrógeno [1]; tetraóxido de dinitrogeno [2]

DA: nitrogendioxid [1]; dinitrogentetraoxid [2]

DE: Stickstoffdioxid [1]; Distickstofftetraoxid [2]

EL: διοξείδιο του αζώτου [1]· τετραοξείδιο του διαζώτου[2]

EN: nitrogen dioxide [1]; dinitrogen tetraoxide [2]

FR: dioxyde d'azote [1]; tétraoxyde de diazote [2]

IT: diossido di azoto [1]; tetraossido di diazoto [2]

NL: stikstofdioxide [1]; distikstoftetraoxide [2]

PT: dióxido de azoto [1]; tetraóxido de diazoto [2]

FI: typpidioksidi [1]; dityppitetraoksidi [2]

SV: kvävedioxid [1]; dikvävetetraoxid [2]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+

**R:** 26-34

**S:** (1/2-)9-26-28-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 5

| | |
|---|---|
| C ≥ 10 % | T+; R 26-34 |
| 5 % ≤ C < 10 % | T; R 23-34 |
| 1 % ≤ C < 5 % | T; R 23-36/37/38 |
| 0,5 % ≤ C < 1 % | Xn; R 20-36/37/38 |
| 0,1 % ≤ C < 0,5 % | Xn; R 20 |
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| Cas No 7782-44-7 | EEC No 231-956-9 | No 008-001-00-8 |
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$O_2$

ES: oxígeno

DA: oxygen; ilt

DE: Sauerstoff

EL: οξυγόνο

EN: oxygen

FR: oxygène

IT: ossigeno

NL: zuurstof

PT: oxigénio

FI: happi

SV: syre; flytande

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

O; R 8

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

O

**R:** 8

**S:** (2-)17

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7782-41-4 | EEC No 231-954-8 | No 009-001-00-0 |
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$F_2$

ES: flúor

DA: fluor

DE: Fluor

EL: φθόριο

EN: fluorine

FR: fluor

IT: fluoro

NL: fluor

PT: flúor

FI: fluori

SV: fluor

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 7 | T+; R 26 | C; R 35 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ C

**R:** 7-26-35

**S:** (1/2-)9-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 78-57-9 | EEC No 201-123-4 | No 015-053-00-5 |
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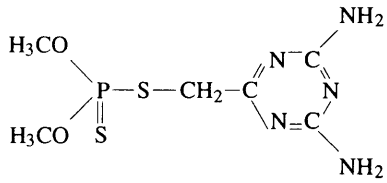

ES: menazon

DA: menazon

DE: Menazon

EL: menazon

EN: menazon

FR: menazon

IT: menazone; S-[(4,6-diamino-1,3,5-triazin-2-il)-metil] O,O-dimetilditiofosfato

NL: menazon

PT: menazon

FI: menatsoni

SV: menazon (ISO); S-4,6-diamino-1,3,5-triazin-2-ylmetyl-O,O-dimetylfosforoditioat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | R 52-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 22-52/53

**S:** (2-)61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7783-06-4 | EEC No 231-977-3 | No 016-001-00-4 |
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$H_2S$

ES: sulfuro de hidrógeno

DA: hydrogensulfid

DE: Hydrogensulfid; Schwefelwasserstoff

EL: σουλφίδιο του υδρογόνου

EN: hydrogen sulphide

FR: sulfure d'hydrogène

IT: solfuro di idrogeno; idrogeno solforato

NL: hydrogeensulfide

PT: sulfureto de hidrogénio

FI: rikkivety; vetysulfidi

SV: vätesulfid; svavelväte

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F+; R 12 | T+; R 26 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ T+ N

**R:** 12-26-50

**S:** (1/2-)9-16-28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 5

| | |
|---|---|
| C ≥ 10 % | T+; R 26 |
| 5 % ≤ C < 10 % | T; R 23 |
| 1 % ≤ C < 5 % | Xn; R 20 |
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| Cas No 7446-09-5 | EEC No 231-195-2 | No 016-011-00-9 |
|---|---|---|

$SO_2$

ES: dióxido de azufre

DA: svovldioxid

DE: Schwefeldioxid

EL: διοξείδιο του θείου

EN: sulphur dioxide

FR: dioxyde de soufre

IT: diossido di zolfo

NL: zwaveldioxide

PT: dióxido de enxofre

FI: rikkidioksidi

SV: svaveldioxid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 23-34

**S:** (1/2-)9-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 5

| | |
|---|---|
| C ≥ 20 % | T; R 23-34 |
| 5 % ≤ C < 20 % | Xn; R 20-34 |
| 0,5 % ≤ C < 5 % | Xi; R 36/37/38 |
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| Cas No 7782-50-5 | EEC No 231-959-5 | No 017-001-00-7 |
|---|---|---|

$Cl_2$

ES: cloro

DA: chlor

DE: Chlor

EL: χλώριο

EN: chlorine

FR: chlore

IT: cloro

NL: chloor

PT: cloro

FI: kloori

SV: klor

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23 | Xi; R 36/37/38 | N; R 50 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23-36/37/38-50

**S:** (1/2-)9-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7647-01-0 | EEC No 231-595-7 | No 017-002-00-2 |
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HCl

ES: cloruro de hidrógeno

DA: hydrogenchlorid

DE: Hydrogenchlorid; Chlorwasserstoff

EL: χλωρίδιο του υδρογόνου

EN: hydrogen chloride

FR: chlorure d'hydrogène

IT: cloruro di idrogeno; acido cloridrico

NL: hydrogeenchloride

PT: cloreto de hidrogénio

FI: kloorivety, vedetön

SV: väteklorid; vattenfri

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23 | C; R 35 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T C

**R:** 23-35

**S:** (1/2-)9-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 5 % | T; C; R 23-35 |
| 1 % ≤ C < 5 % | C; R 20-35 |
| 0,5 % ≤ C < 1 % | C; R 20-34 |
| 0,2 % ≤ C < 0,5 % | C; R 34 |
| 0,02 % ≤ C < 0,2 % | Xi; R 36/37/38 |
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NOTA 5

| Cas No 1333-82-0 | EEC No 215-607-8 | No 024-001-00-0 |
|---|---|---|

NOTA E

$CrO_3$

ES: trióxido de cromo

DA: chromtrioxid

DE: Chromtrioxid

EL: τριοξείδιο του χρώμιου

EN: chromium trioxide

FR: trioxyde de chrome

IT: triossido di cromo

NL: chroomtrioxide

PT: trióxido de crómio

FI: kromitrioksidi

SV: kromtrioxid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|---|---|
| O; R 8 | Carc. Cat. 1; R 49 | T; R 25 | C; R 35 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

O T C N

**R:** 49-8-25-35-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7778-50-9 | EEC No 231-906-6 | No 024-002-00-6 |
|---|---|---|

NOTA E

$K_2 Cr_2 O_7$

ES: dicromato de potasio

DA: kaliumdichromat

DE: Kaliumdichromat

EL: διχρωμικό κάλιο

EN: potassium dichromate

FR: dichromate de potassium

IT: dicromato di potassio

NL: kaliumdichromaat

PT: dicromato de potássio

FI: kaliumdikromaatti

SV: kaliumdikromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 49 | Muta. Cat. 2; R 46 | T+; R 26 | T; R 25 | Xn; R 21 |
|---|---|---|---|---|
| Xi; R 37/38-41 | R 43 | N; R 50-53 | | |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 49-46-21-25-26-37/38-41-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

| | |
|---|---|
| C ≥ 7 % | T+; R 49-46-21-25-26-37/38-41-43 |
| 0,5 % ≤ C < 7 % | T; R 49-46-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No 7789-09-5 | EEC No 232-143-1 | No 024-003-00-1 |
|---|---|---|

NOTA E

$(NH_4)_2\ Cr_2\ O_7$

ES: dicromato de amonio

DA: ammoniumdichromat

DE: Ammoniumdichromat

EL: διχρωμικό αμμώνιο

EN: ammonium dichromate

FR: dichromate d'ammonium

IT: dicromato di ammonio

NL: ammoniumdichromaat

PT: dicromato de amónio

FI: ammoniumdikromaatti

SV: ammoniumdikromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | | | | |
|---|---|---|---|---|---|---|
| E | R 1 | O; R 8 | Carc. Cat. 2; R 49 | Muta. Cat. 2; R 46 | T+; R 26 | T; R 25 |

| | | | |
|---|---|---|---|
| Xn; R 21 | Xi; R 37/38-41 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

E T+ N



**R:** 49-46-1-8-21-25-26-37/38-41-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

| | |
|---|---|
| C ≥ 7 % | T+; R 49-46-21-25-26-37/38-41-43 |
| 0,5 % ≤ C < 7 % | T; R 49-46-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No 10588-01-9 | EEC No 234-190-3 | No 024-004-00-7 |
|---|---|---|

NOTA E

$Na_2 Cr_2 O_7$

ES: dicromato de sodio

DA: natriumdichromat

DE: Natriumdichromat

EL: διχρωμικό νάτριο

EN: sodium dichromate

FR: dichromate de sodium

IT: dicromato di sodio

NL: natriumdichromaat

PT: dicromato de sódio

FI: natriumdikromaatti

SV: natriumdikromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | | | |
|---|---|---|---|---|---|
| O; R 8 | Carc. Cat. 2; R 49 | Muta. Cat. R 46 | T+; R 26 | T; R 25 | Xn; R 21 |
| Xi; R 37/38-41 | R 43 | N; R 50-53 | | | |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

O T+ N

**R:** 49-46-8-21-25-26-37/38-41-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

| | |
|---|---|
| C ≥ 7 % | T+; R 49-46-21-25-26-37/38-41-43 |
| 0,5 % ≤ C < 7 % | T; R 49-46-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No 14977-61-8 | EEC No 239-056-8 | No 024-005-00-2 |
|---|---|---|

NOTA E

$Cr\ O_2\ Cl_2$

ES: dicloruro de cromilo

DA: chromyldichlorid

DE: Chromyldichlorid; Chromoxychlorid

EL: διχλωρίδιο του χρωμύλου

EN: chromyl dichloride; chromic oxychloride

FR: dichlorure de chromyle

IT: dicloruro di cromile

NL: chromyldichloride

PT: dicloreto de cromilo

FI: kromioksikloridi

SV: kromyldiklorid; kromdioxidklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | | | |
|---|---|---|---|---|---|
| O; R 8 | Carc. Cat. 2; R 49 | Muta. Cat. 2; R 46 | C; R 35 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

O T C N

**R:** 49-46-8-35-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

| | |
|---|---|
| C ≥ 10 % | T; C; R 49-46-35-43 |
| 5 % ≤ C < 10 % | T; R 49-46-34-43 |
| 0,5 % ≤ C < 5 % | T; R 49-46-36/37/38-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No 7789-00-6 | EEC No 232-140-5 | No 024-006-00-8 |
|---|---|---|

NOTA E

$K_2 Cr O_4$

ES: cromato de potasio

DA: kaliumchromat

DE: Kaliumchromat

EL: χρωμικό κάλιο

EN: potassium chromate

FR: chromate de potassium

IT: cromato di potassio

NL: kaliumchromaat

PT: cromato de potássio

FI: kaliumkromaatti

SV: kaliumkromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 49 | Muta. Cat. 2; R 46 | Xi; R 36/37/38 | R 43 | N; R 50-53 |
|---|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 49-46-36/37/38-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

| | |
|---|---|
| C ≥ 20 % | T; R 49-46-36/37/38-43 |
| 0,5 % ≤ C < 20 % | T; R 49-46-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No — | EEC No — | No 024-007-00-3 |
|---|---|---|

NOTA A
NOTA E

ES: cromatos de cinc, incluido el cromato de cinc y de potasio

DA: zinkchromater, herunder zinkkaliumchromat

DE: Zinkchromate, einschließlich Zinkkaliumchromat

EL: χρωμικά ψευδαργύρου, περιλαμβανομένου του χρωμικού του ψευδαργύρου και καλίου

EN: zinc chromates including zinc potassium chromate

FR: chromates de zinc y compris le chromate de zinc et potassium

IT: cromato di zinco, compreso il cromato di zinco e potassio

NL: zinkchromaat met inbegrip van zinkkaliumchromaat

PT: cromatos de zinco, incluindo o cromato de zinco e potássio

FI: sinkkikromaatit mukaan luettuna sinkkikaliumkromaatti

SV: zinkkromater inklusive zinkkaliumkromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 1; R 45 | Xn; R 22 | R 43 | N; R 50-53 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 13765-19-0 | EEC No 237-366-8 | No 024-008-00-9 |
|---|---|---|

NOTA E

$CaCrO_4$

ES: cromato de calcio

DA: calciumchromat

DE: Calciumchromat

EL: χρωμικό ασβέστιο

EN: calcium chromate

FR: chromate de calcium

IT: cromato di calcio

NL: calciumchromaat

PT: cromato de cálcio

FI: kalsiumkromaatti

SV: kalciumkromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 50-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7789-06-2 | EEC No 232-142-6 | No 024-009-00-4 |
|---|---|---|

NOTA E

$SrCrO_4$

ES: cromato de estroncio

DA: strontiumchromat

DE: Strontiumchromat

EL: χρωμικό στρόντιο

EN: strontium chromate

FR: chromate de strontium

IT: cromato di stronzio

NL: strontiumchromaat

PT: cromato de estrôncio

FI: strontiumkromaatti

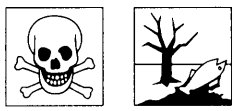
SV: strontiumkromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 50-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N



**R:** 45-22-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 24613-89-6 | EEC No 246-356-2 | No 024-010-00-X |
|---|---|---|

$Cr_2(CrO_4)_3$

ES: tris(cromato) de dicromo

DA: dichromtris(chromat)

DE: Dichromtris(chromat); Chrom(III)-chromat

EL: τρις(χρωμικό) του διχρωμίου

EN: dichromium tris(chromate); chromium III chromate; chromic chromate

FR: tris(chromate) de dichrome

IT: tris(cromato) di dicromo

NL: dichroomtris(chromaat)

PT: tris(cromato) de dicrómio

FI: kromi(III)kromaatti

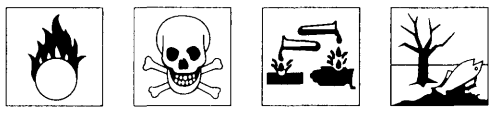
SV: krom(III)kromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | | |
|---|---|---|---|---|
| O; R 8 | Carc. Cat. 2; R 45 | C; R 35 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

O T C N



**R:** 45-8-35-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 10034-85-2 | EEC No 233-109-9 | No 053-002-00-9 |
|---|---|---|

HI

ES: ioduro de hidrógeno

DA: hydrogeniodid

DE: Hydrogeniodid; Jodwasserstoff

EL: ιωδίδιο του υδρογόνου

EN: hydrogen iodide

FR: iodure d'hydrogène

IT: ioduro di idrogeno; acido iodidrico

NL: hydrogeenjodide

PT: iodeto de hidrogénio

FI: jodivety, vedetön

SV: vätejodid; vattenfri

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

C; R 35

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 35

**S:** (1/2-)9-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 10 % | C; R 35 |
| 0,2 % ≤ C < 10 % | C; R 34 |
| 0,02 % ≤ C < 0,2 % | Xi; R 36/37/38 |
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NOTA 5

| Cas No — | EEC No — | No 056-002-00-7 |
|---|---|---|

NOTA A

ES: sales de bario, excepto el sulfato de bario, ácido 1-azo-2-hidroxinaftalenil aril sulfónico y aquellas específicamente expresadas en este anexo

DA: bariumsalte, undtagen bariumsulfat, salte af 1-azo-2-hydroxynaphthalenylarylsulfonsyre, og bariumsalte nævnt andetsteds i dette bilag

DE: Bariumsalze, mit Ausnahme des Bariumsulfats, der Salze von 1-Azo-2-hydroxynaphthalenylarylsulfonsäuren, und der namentlich in diesem Anhang bezeichneten Salze

EL: άλατα βαρίου, εκτός από το θειικό βάριο, άλατα του 1-αζω-2-υδροξυναφθαλινο αρυλο σουλφονικού οξέος, και άλατα που αναφέρονται σ' άλλο σημείο αυτού του καταλόγου

EN: barium salts, with the exception of barium sulphate, salts of 1-azo-2-hydroxynaphthalenyl aryl sulphonic acid, and of salts specified elsewhere in this Annex

FR: sels de baryum, à l'exclusion du sulfate de baryum, des sels de l'acide 1-azo-2-hydroxynaphthalénylarylsulfonique, et des sels nommément désignés dans cette annexe

IT: sali di bario, esclusi il solfato di bario, i sali dell'acido 1-azo-2-idrossinaftalenil aril solfonico, e i sali espressamente indicati in questo allegato

NL: bariumzouten, met uitzondering van bariumsulfaat, zouten van 1-azo-2-hydroxynaphtyl aryl sulfoonzuur en in deze bijlage met name genoemde zouten

PT: sais de bário, com excepção do sulfato de bário, sais de ácido 1-azo-2-hidroxinaftalenil aril sulfónico, e dos sais expressamente referidos no presente anexo

FI: bariumsuolat paitsi bariumsulfaatti, 1-atso-2-hydroksinaftenyyliaryylisulfonihapon suolat ja muualla tässä liiteessä mainitut suolat

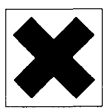
SV: bariumsalter utom bariumsulfat, salter av 1-azo-2-hydroxinaftalenylarylsulfonsyra och sådana som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

Xn; R 20/22

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn



**R:** 20/22

**S:** (2-)28

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 1

| C ≥ 1 % | Xn; R 20/22 |
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| Cas No — | EEC No — | No 082-002-00-1 |
|---|---|---|

NOTA A
NOTA E

$$Pb\ (C_nH_{2n+1})_x$$
$$n = 1\text{-}5$$

ES: derivados de alquilplomo

DA: blyalkyler

DE: Bleialkyle

EL: αλκυλικές ενώσεις μολύβδου

EN: lead alkyls

FR: dérivés alkylés du plomb

IT: piomboalchili

NL: loodalkylen

PT: alquilos de chumbo

FI: lyijyalkyylit

SV: blyalkyler

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Repr. Cat. I; R 61 | Repr. Cat. 3; R 62 | T+; R 26/27/28 | R 33 | N; R 50-53 |
|---|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 61-62-26/27/28-33-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 1

| | |
|---|---|
| C ≥ 5 % | T+; R 61-62-26/27/28-33 |
| 0,5 % ≤ C < 5 % | T+; R 61-26/27/28-33 |
| 0,1 % ≤ C < 0,5 % | T; R 61-23/24/25-33 |
| 0,05 % ≤ C < 0,1 % | Xn; R 20/21/22-33 |
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| | |

| Cas No 7758-97-6 | EEC No 231-846-0 | No 082-004-00-2 |
|---|---|---|

$PbCrO_4$

ES: cromato de plomo

DA: blychromat

DE: Bleichromat

EL: χρωμικός μόλυβδος

EN: lead chromate

FR: chromate de plomb

IT: cromato di piombo

NL: loodchromaat

PT: cromato de chumbo

FI: lyijykromaatti

SV: blykromat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | | |
|---|---|---|---|---|
| Repr. Cat. 1; R 61 | Repr. Cat. 3; R 62 | Carc. Cat. 3; R 40 | R 33 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 61-62-33-40-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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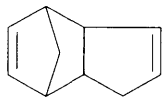
NOTA 1

| Cas No 77-73-6 | EEC No 201-052-9 | No 601-044-00-9 |
|---|---|---|



ES: 3a,4,7,7a-tetrahidro-4,7-metanoindeno

DA: 3a,4,7,7a-tetrahydro-4,7-methanoinden

DE: 3a,4,7,7a-Tetrahydro-4,7-methanoinden

EL: 3a,4,7,7a-τετραϋδρο-4,7-μεθανοϊνδένιο

EN: 3a,4,7,7a-tetrahydro-4,7-methanoindene

FR: 3a,4,7,7a-tétrahydro-4,7-méthanoindène

IT: 3a,4,7,7a-tetraidro-4,7-metanoindene; diciclopentadiene

NL: 3a,4,7,7a-tetrahydro-4,7-methanoindeen

PT: 3a,4,7,7a-tetrahidro-4,7-metanoindeno

FI: 3a,4,7,7a-tetrahydro-4,7-metaani-indeeni

SV: 3a,4,7,7a-tetrahydro-4,7-metanoinden; dicyklopentadien

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | |
|---|---|---|---|
| F; R 11 | Xn; R 20/22 | Xi; R 36/37/38 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn N

**R:** 11-20/22-36/37/38-51/53

**S:** (2-)36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 74-95-3 | EEC No 200-824-2 | No 602-003-00-8 |
|---|---|---|

$CH_2Br_2$

ES: dibromometano

DA: dibrommethan

DE: Dibrommethan

EL: διβρωμομεθάνιο

EN: dibromomethane

FR: dibromométhane

IT: dibromometano

NL: dibroommethaan

PT: dibromometano

FI: dibromimetaani; metyleenidibromidi

SV: dibrommetan; metylenbromid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 20 | R 52-53 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 20-52/53

**S:** (2-)24-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 12,5 % | Xn; R 20 |
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| Cas No 75-25-2 | EEC No 200-854-6 | No 602-007-00-X |
|---|---|---|

$CHBr_3$

ES: bromoformo

DA: bromoform

DE: Bromoform; Tribrommethan

EL: βρωμοφόρμιο

EN: bromoform; tribromomethane

FR: bromoforme

IT: bromoformio; tribromometano

NL: bromoform

PT: bromoforme

FI: bromoformi; tribromimetaani

SV: bromoform; tribrommetan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23 | Xi; R 36/38 | N; R 51-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23-36/38-51/53

**S:** (1/2-)28-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 56-23-5 | EEC No 200-262-8 | No 602-008-00-5 |
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$CCl_4$

ES: tetracloruro de carbono

DA: carbontetrachlorid

DE: Kohlenstofftetrachlorid; Tetrachlormethan

EL: τετραχλωρίδιο του άνθρακα

EN: carbon tetrachloride; tetrachloromethane

FR: tétrachlorure de carbone

IT: tetracloruro di carbonio; tetraclorometano

NL: koolstoftetrachloride

PT: tetracloreto de carbono

FI: hiilitetrakloridi

SV: koltetraklorid; tetraklormetan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | |
|---|---|---|---|
| Carc. Cat. 3; R 40 | T; R 23/24/25-48/23 | R 52-53 | N; R 59 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-40-48/23-52/53-59

**S:** (1/2-)23-36/37-45-59-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 1 % | T; R 23/24/25-40-48/23 |
| 0,2 % ≤ C < 1 % | Xn; R 20/21/22-48/20 |
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| Cas No 75-00-3 | EEC No 200-830-5 | No 602-009-00-0 |
|---|---|---|

$C_2H_5Cl$

ES: cloroetano

DA: chlorethan

DE: Chlorethan; Ethylchlorid

EL: χλωροαιθάνιο

EN: chloroethane

FR: chloroéthane

IT: cloroetano

NL: chloorethaan

PT: cloroetano

FI: kloorietaani; etyylikloridi

SV: kloretan; etylklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| F+; R 12 | Carc. Cat. 3; R 40 | R 52-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ Xn

**R:** 12-40-52/53

**S:** (2-)9-16-33-36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 106-93-4 | EEC No 203-444-5 | No 602-010-00-6 |
|---|---|---|

NOTA E

$BrCH_2 — CH_2Br$

ES: 1,2-dibromoetano

DA: 1,2-dibromethan

DE: 1,2-Dibromethan; Ethylendibromid

EL: 1,2-διβρωμοαιθάνιο

EN: 1,2-dibromoethane

FR: 1,2-dibromoéthane

IT: 1,2-dibromoetano

NL: 1,2-dibroomethaan

PT: 1,2-dibromoetano

FI: 1,2-etyleenidibromidi

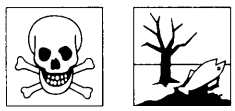
SV: 1,2-dibrometan; 1,2-etylendibromid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T; R 23/24/25 | Xi; R 36/37/38 | N; R 51-53 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N



**R:** 45-23/24/25-36/37/38-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 20 % | T; R 45-23/24/25-36/37/38 |
| 1 % ≤ C < 20 % | T; R 45-23/24/25 |
| 0,1 % ≤ C < 1 % | T; R 45-20/21/22 |
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| Cas No 75-34-3 | EEC No 200-863-5 | No 602-011-00-1 |
|---|---|---|

$CH_3 - CHCl_2$

ES: 1,1-dicloroetano

DA: 1,1-dichlorethan

DE: 1,1-Dichlorethan

EL: 1,1-διχλωροαιθάνιο

EN: 1,1-dichloroethane

FR: 1,1-dichloroéthane

IT: 1,1-dicloroetano

NL: 1,1-dichloorethaan

PT: 1,1-dicloroetano

FI: 1,1-dikloorietaani

SV: 1,1-dikloretan; etylidendiklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | Xn; R 22 | Xi; R 36/37 | R 52-53 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn

**R:** 11-22-36/37-52/53

**S:** (2-)16-23-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 20 % | Xn; R 22-36/37 |
| 12,5 % ≤ C < 20 % | Xn; R 22 |
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| Cas No 79-27-6 | EEC No 201-191-5 | No 602-016-00-9 |
|---|---|---|

$CHBr_2 — CHBr_2$

ES: 1,1,2,2-tetrabromoetano

DA: 1,1,2,2-tetrabromethan

DE: 1,1,2,2-Tetrabromethan

EL: 1,1,2,2-τετραβρωμοαιθάνιο

EN: 1,1,2,2-tetrabromoethane

FR: 1,1,2,2-tétrabromoéthane

IT: 1,1,2,2-tetrabromoetano

NL: 1,1,2,2-tetrabroomethaan

PT: 1,1,2,2-tetrabromoetano

FI: 1,1,2,2-tetrabromietaani

SV: 1,1,2,2-tetrabrometan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26 | Xi; R 36 | R 52-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+

**R:** 26-36-52/53

**S:** (1/2-)24-27-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 20 % | T+; R 26-36 |
| 7 % ≤ C < 20 % | T+; R 26 |
| 1 % ≤ C < 7 % | T; R 23 |
| 0,1 % ≤ C < 1 % | Xn; R 20 |
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| Cas No 540-54-5 [1]<br>75-29-6 [2] | EEC No 208-749-7 [1]<br>200-858-8 [2] | No 602-018-00-X |
|---|---|---|

NOTA C

$C_3H_7Cl$

ES: 1-cloropropano [1]; 2-cloropropano [2]

DA: 1-chlorpropan [1]; 2-chlorpropan [2]

DE: 1-Chlorpropan [1]; 2-Chlorpropan [2]

EL: 1-χλωροπροπάνιο [1]· 2-χλωροπροπάνιο [2]

EN: 1-chloropropane [1]; 2-chloropropane [2]

FR: 1-chloropropane [1]; 2-chloropropane [2]

IT: 1-cloropropano [1]; 2-cloropropano [2]

NL: 1-chloorpropaan [1]; 2-chloorpropaan [2]

PT: 1-cloropropano [1]; 2-cloropropano [2]

FI: 1-klooripropaani [1]; 2-klooripropaani [2]

SV: 1-klorpropan [1]; 2-klorpropan [2]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | Xn; R 20/21/22 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn

**R:** 11-20/21/22

**S:** (2-)9-29

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 25 % | Xn; R 20/21/22 |
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| Cas No 96-12-8 | EEC No 202-479-3 | No 602-021-00-6 |
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NOTA E

$CH_2Br — CHBr — CH_2Cl$

ES: 1,2-dibromo-3-cloropropano

DA: 1,2-dibrom-3-chlorpropan

DE: 1,2-Dibrom-3-chlorpropan

EL: 1,2-διβρωμο-2-χλωροπροπάνιο

EN: 1,2-dibromo-3-chloropropane

FR: 1,2-dibromo-3-chloropropane

IT: 1,2-dibromo-3-cloropropano

NL: 1,2-dibroom-3-chloorpropaan

PT: 1,2-dibromo-3-cloropropano

FI: 1,2-dibromi-3-klooripropaani

SV: 1,2-dibrom-3-klorpropan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Muta. Cat 2; R 46 | Repr. Cat. 1; R 60 | T; R 25 | Xn; R 48/20/22 |
|---|---|---|---|---|

R 52-53

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-46-60-25-48/20/22-52/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 543-59-9 [1]<br>625-29-6 [2]<br>616-20-6 [3] | EEC No 208-846-4 [1]<br>210-885-7 [2]<br>210-467-4 [3] | No 602-022-00-1 |
|---|---|---|

NOTA C

$C_5H_{11}Cl$

ES: 1-cloropentano [1]; 2-cloropentano [2]; 3-cloropentano [3]

DA: 1-chlorpentan [1]; 2-chlorpentan [2]; 3-chlorpentan [3]

DE: 1-Chlorpentan [1]; 2-Chlorpentan [2]; 3-Chlorpentan [3]

EL: 1-χλωροπεντάνιο [1]· 2-χλωροπεντάνιο [2]· 3-χλωροπεντάνιο [3]

EN: 1-chloropentane [1]; 2-chloropentane [2]; 3-chloropentane [3]

FR: 1-chloropentane [1]; 2-chloropentane [2]; 3-chloropentane [3]

IT: 1-cloropentano [1]; 2-cloropentano [2]; 3-cloropentano [3]

NL: 1-chloorpentaan [1]; 2-chloorpentaan [2]; 3-chloorpentaan [3]

PT: 1-cloropentano [1]; 2-cloropentano [2]; 3-cloropentano [3]

FI: 1-klooripentaani [1]; 2-klooripentaani [2]; 3-klooripentaani [3]

SV: 1-klorpentan [1]; 2-klorpentan [2]; 3-klorpentan [3]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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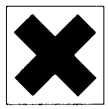
|---|---|
| F; R 11 | Xn; R 20/21/22 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn



**R:** 11-20/21/22

**S:** (2-)9-29

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 25 % | Xn; R 20/21/22 |
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| Cas No 593-60-2 | EEC No 209-800-6 | No 602-024-00-2 |
|---|---|---|

$CH_2 = CH - Br$

ES: bromoetileno

DA: bromethylen; vinyl bromide

DE: Bromethylen; Vinylbromid

EL: βρωμοαιθυλένιο

EN: bromoethylene

FR: bromoéthylène

IT: bromoetilene

NL: broomethyleen

PT: bromoetileno

FI: bromietyleeni; vinyylibromidi

SV: brometen; vinylbromid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F+; R 12 | Carc. Cat. 2; R 45 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ T

**R:** 45-12

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | EEC No | No |
|---|---|---|
| 540-59-0 [1]<br>156-59-2 [2]<br>156-60-5 [3] | 208-750-2 [1]<br>205-859-7 [2]<br>205-860-2 [3] | 602-026-00-3 |

NOTA C

$$CHCl = CHCl$$

ES: 1,2-dicloroetileno [1]; *cis*-dicloroetileno [2]; *trans*-dicloroetileno [3]

DA: 1,2-dichlorethylen [1]; *cis*-dichlorethylen [2]; *trans*-dichlorethylen [3]

DE: 1,2-Dichlorethylen [1]; *cis*-Dichlorethylen [2]; *trans*-Dichlorethylen [3]; 1,2-Dichlorethen [1]; *cis*-Dichlorethen [2]; *trans*-Dichlorethen [3]

EL: 1,2-διχλωροαιθυλένιο [1]· cis-διχλωροαιθυλένιο [2]· trans-διχλωροαιθυλένιο [3]

EN: 1,2-dichloroethylene [1]; *cis*-dichloroethylene [2]; *trans*-dichloroethylene [3]

FR: 1,2-dichloroéthylène [1]; *cis*-dichloroéthylène [2]; *trans*-dichloroéthylène [3]

IT: 1,2-dicloroetilene [1]; *cis*-dicloroetilene [2]; *trans*-dicloroetilene [3]

NL: 1,2-dichloorethyleen [1]; *cis*-dichloorethyleen [2]; *trans*-dichloorethyleen [3]

PT: 1,2-dicloroetileno [1]; *cis*-dicloroetileno [2]; *trans*-dicloroetileno [3]

FI: 1,2-dikloorietyleeni [1]; *cis*-dikloorietyleeni [2]; *trans*-dikloorietyleeni [3]

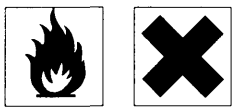
SV: 1,2-dikloretylen [1]; *cis*-dikloretylen [2]; *trans*-dikloretylen [3]; 1,2-dikloreten [1]; *cis*-dikloreten [2]; *trans*-dikloreten [3]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| F; R 11 | Xn; R 20 | R 52-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn



**R:** 11-20-52/53

**S:** (2-)7-16-29-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 12,5 % | Xn; R 20 |
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| Cas No 79-01-6 | EEC No 201-167-4 | No 602-027-00-9 |
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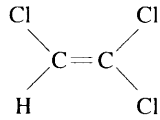

ES: tricloroetileno

DA: trichlorethylen

DE: Trichlorethylen

EL: τριχλωροαιθυλένιο

EN: trichloroethylene

FR: trichloroéthylène

IT: tricloroetilene

NL: trichloorethyleen

PT: tricloroetileno

FI: trikloorietyleeni

SV: trikloreten

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | R 52-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 40-52/53

**S:** (2-)23-36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 1 % | Xn; R 40 |
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| Cas No 127-18-4 | EEC No 204-825-9 | No 602-028-00-4 |
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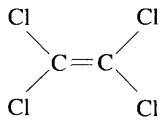

ES: tetracloroetileno

DA: tetrachlorethylen

DE: Tetrachlorethylen; Perchlorethylen

EL: τετραχλωροαιθυλένιο

EN: tetrachloroethylene

FR: tétrachloroéthylène

IT: tetracloroetilene; percloroetilene

NL: tetrachloorethyleen

PT: tetracloroetileno

FI: tetrakloorietyleeni

SV: tetrakloreten

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | N; R 51-53 |
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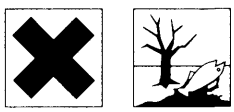
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 40-51/53

**S:** (2-)23-36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 1 % | Xn; R 40 |
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| Cas No 542-75-6 [1]<br>10061-01-5 [2] | EEC No 208-826-5 [1]<br>233-195-8 [2] | No 602-030-00-5 |
|---|---|---|

NOTA D
NOTA C

$ClCH = CH - CH_2Cl$

ES: 1,3-dicloropropeno [1]; (Z)-1,3-dicloropropeno [2]

DA: 1,3-dichlorpropen [1]; (Z)-1,3-dichlorpropen [2]

DE: 1,3-Dichlorpropen [1]; (Z)-1,3-Dichlorpropen [2]

EL: 1,3-διχλωροπροπένιο [1]· (Z)-1,3-διχλωροπροπένιο [2]

EN: 1,3-dichloropropene [1]; (Z)-1,3-dichloropropene [2]

FR: 1,3-dichloropropène [1]; (Z)-1,3-dichloropropène [2]

IT: 1,3-dicloropropene [1]; (Z)-1,3-dicloropropene [2]

NL: 1,3-dichloorpropeen [1]; (Z)-1,3-dichloorpropeen [2]

PT: 1,3-dicloropropeno [1]; (Z)-1,3-dicloropropeno [2]

FI: 1,3-diklooripropeeni [1]; (Z)-1,3-diklooripropeeni [2]

SV: 1,3-diklorpropen [1]; (Z)-1,3-diklorpropen [2]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| R 10 | T; R 25 | Xn; R 20/21 | Xi; R 36/37/38 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 10-20/21-25-36/37/38-43-50/53

**S:** (1/2-)36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 563-58-6 | EEC No 209-253-3 | No 602-031-00-0 |
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$$CH_3 - CH = CCl_2$$

ES: 1,1-dicloropropeno

DA: 1,1-dichlorpropen

DE: 1,1-Dichlorpropen

EL: 1,1-διχλωροπροπένιο

EN: 1,1-dichloropropene

FR: 1,1-dichloropropène

IT: 1,1-dicloropropene

NL: 1,1-dichloorpropeen

PT: 1,1-dicloropropeno

FI: 1,1-diklooripropeeni

SV: 1,1-diklorpropen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | T; R 25 | R 52-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F

T

**R:** 11-25-52/53

**S:** (1/2-)16-29-33-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 563-47-3 | EEC No 209-251-2 | No 602-032-00-6 |
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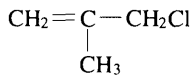

ES: 3-cloro-2-metilpropeno

DA: 3-chlor-2-methylpropen

DE: 3-Chlor-2-methylpropen; Methallylchlorid

EL: 3-χλωρο-2-μεθυλοπροπένιο

EN: 3-chloro-2-methylpropene

FR: 3-chloro-2-méthylpropène

IT: 3-cloro-2-metilpropene

NL: 3-chloor-2-methylpropeen

PT: 3-cloro-2-metilpropeno

FI: 3-kloori-2-metyylipropeeni; metallyylikloridi

SV: 3-klor-2-metylpropen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| F; R 11 | Xn; R 20/22 | C; R 34 | R 43 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C N

**R:** 11-20/22-34-43-51/53

**S:** (2-)9-16-26-29-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 108-90-7 | EEC No 203-628-5 | No 602-033-00-1 |
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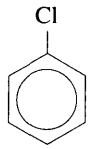


ES: clorobenceno

DA: chlorbenzen

DE: Chlorbenzol

EL: χλωροβενζόλιο

EN: chlorobenzene

FR: chlorobenzène

IT: clorobenzene

NL: chloorbenzeen

PT: clorobenzeno

FI: klooribentseeni

SV: klorbenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 10 | Xn; R 20 | N; R 51-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 10-20-51/53

**S:** (2-)24/25-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| C ≥ 5 % | Xn; R 20 |
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| Cas No | 95-49-8 [1]<br>108-41-8 [2]<br>106-43-4 [3]<br>25168-05-2 [4] |
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| EEC No | 202-424-3 [1]<br>203-580-5 [2]<br>203-397-0 [3]<br>246-698-2 [4] |
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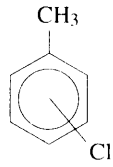
No 602-040-00-X

NOTA C




ES: 2-clorotolueno [1]; 3-clorotolueno [2]; 4-clorotolueno [3]; clorotolueno [4]

DA: 2-chlortoluen [1]; 3-chlortoluen [2]; 4-chlortoluen [3]; chlortoluen [4]

DE: 2-Chlortoluol [1]; 3-Chlortoluol [2]; 4-Chlortoluol [3]; Chlortoluol [4]

EL: 2-χλωροτολουόλη [1]· 3-χλωροτουλουόλη [2]· 4-χλωροτολουόλη [3]· χλωροτολουόλιο [4]

EN: 2-chlorotoluene [1]; 3-chlorotoluene [2]; 4-chlorotoluene [3]; chlorotoluene [4]

FR: 2-chlorotoluène [1]; 3-chlorotoluène [2]; 4-chlorotoluène [3]; chlorotoluène [4]

IT: 2-clorotoluene [1]; 3-clorotoluene [2]; 4-clorotoluene [3]; clorotoluene [4]

NL: 2-chloortolueen [1]; 3-chloortolueen [2]; 4-chloortolueen [3]; chloortolueen [4]

PT: 2-clorotolueno [1]; 3-clorotolueno [2]; 4-clorotolueno [3]; clorotolueno [4]

FI: 2-klooritolueeni [1]; 3-klooritolueeni [2]; 4-klooritolueeni [3]; klooritolueeni [4]

SV: 2-klortoluen [1]; 3-klortoluen [2]; 4-klortoluen [3]; klortoluen [4]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 20 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 20-51/53

**S:** (2-)24/25-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 602-042-00-0 |
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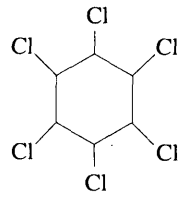
NOTA C




ES: 1,2,3,4,5,6-hexaclorociclohexanos excepto los especialmente indicados en este Anexo

DA: 1,2,3,4,5,6-hexachlorcyclohexaner med undtagelse af sådanne angivet andetsteds i dette bilag

DE: 1,2,3,4,5,6-Hexachlorcyclohexane mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: 1,2,3,4,5,6-εξαχλωροκυκλοεξάνιο, εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: 1,2,3,4,5,6-hexachlorcyclohexanes with the exception of those specified elsewhere in this Annex

FR: 1,2,3,4,5,6-hexachlorocyclohexanes à l'exception de ceux nommément désignés dans cette annexe

IT: 1,2,3,4,5,6-esaclorocicloesani esclusi quelli espressamente indicati in questo allegato

NL: 1,2,3,4,5,6-hexachloorcyclohexanen met uitzondering van de in deze bijlage met name genoemde

PT: 1,2,3,4,5,6-hexaclorocicloexanos com excepção dos expressamente referidos no presente anexo

FI: 1,2,3,4,5,6-heksakloorisykloheksaani paitsi muualla tässä liitteessä mainitut

SV: 1,2,3,4,5,6-hexaklorcyklohexaner med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | T; R 25 | Xn; R 21 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 21-25-40-50/53

**S:** (1/2-)22-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 8001-35-2 | EEC No 232-283-3 | No 602-044-00-1 |
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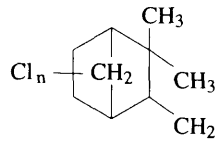


67 - 69 % Cl

ES: toxafeno

DA: toxaphen

DE: Toxaphen; Camphechlor

EL: τοξοφαίνιο

EN: Toxaphene; camphechlor

FR: toxaphène

IT: toxafene; camfeclor

NL: toxafeen

PT: toxafeno

FI: toksafeeni; kamfekloori

SV: toxafen; kamfeklor (ISO)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat 3; R 40 | T; R 25 | Xn; R 21 | Xi; R 37/38 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 21-25-37/38-40-50/53

**S:** (1/2-)36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 465-73-6 | EEC No 207-366-2 | No 602-050-00-4 |
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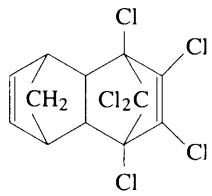


ES: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexacloro-1,4,4*a*,5,8,8*a*-hexahidro-1,4:5,8-dimetanonaftaleno; isodrin

DA: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexachlor-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-dimethanonaphtalen; isodrin

DE: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-Hexachlor-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-dimethanonaphthalin; Isodrin

EL: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-εξαχλωρο-1,4,4*a*,5,8,8*a*-εξαϋδρο-1,4:5,8-διμεθανοναφθαλένιο· ισοτρίν

EN: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexachloro-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-dimethanonaphfthalene; isodrin

FR: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexachloro-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-diméthanonaphtalène; isodrine

IT: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-esacloro-1,4,4*a*,5,8,8*a*-esaidro-1,4:5,8-dimetanonaftalene; isodrin

NL: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexachloor-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-dimethanonaftaleen; isodrin

PT: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexacloro-1,4,4*a*,5,8,8*a*-hexahidro-1,4:5,8-dimetanonaftaleno; isodrine

FI: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-heksakloori-1,4,4*a*,5,8,8*a*-heksahydro-1,4:5,8-dimetanonaftaleeni; isodriini

SV: (1α,4α,4*a*β,5β,8β8*a*β)-1,2,3,4,10,10-hexaklor-1,4,4*a*,5,8,8*a*-hexahydro-1,4:5,8-dimetanonaftalen; isodrin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| T+; R 26/27/28 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 26/27/28-50/53

**S:** (1/2-)13-28-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 108-86-1 | EEC No 203-623-8 | No 602-060-00-9 |
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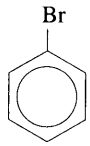


ES: bromobenceno

DA: brombenzen

DE: Brombenzol

EL: βρωμοβενζόλιο

EN: bromobenzene

FR: bromobenzène

IT: bromobenzene

NL: broombenzeen

PT: bromobenzeno

FI: bromibentseeni

SV: brombenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| R 10 | Xi; R 38 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi N

**R:** 10-38-51/53

**S:** (2-)61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 118-74-1 | EEC No 204-273-9 | No 602-065-00-6 |
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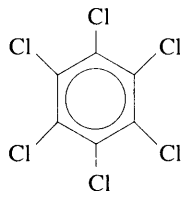
NOTA E




ES: hexaclorobenceno

DA: hexachlorbenzen

DE: Hexachlorbenzol

EL: εξαχλωροβενζόλιο

EN: hexachlorobenzene

FR: hexachlorobenzène

IT: esaclorobenzene

NL: hexachloorbenzeen

PT: hexaclorobenzeno

FI: heksaklooribentseeni

SV: hexaklorbenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T; R 48/25 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-48/25-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 118-75-2 | EEC No 204-274-4 | No 602-066-00-1 |
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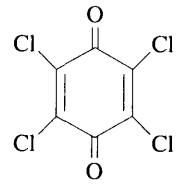

ES: tetracloro-p-benzoquinona

DA: tetrachlor-p-benzoquinon

DE: Tetrachlor-p-benzochinon; Chloranil

EL: τετραχλωρο-παρα-βενζοκινόνη

EN: tetrachloro-p-benzoquinone

FR: tétrachloro-p-benzoquinone

IT: tetracloro-p-benzochinone; cloranile

NL: tetrachloor-p-benzochinon

PT: tetracloro-p-benzoquinona

FI: tetrakloori-p-bentsokinoni; kloraniili

SV: tetraklor-p-benzokinon

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/38 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi N

**R:** 36/38-50/53

**S:** (2-)37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 541-73-1 | EEC No 208-792-1 | No 602-067-00-7 |
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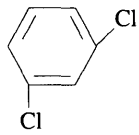


ES: 1,3-diclorobenceno

DA: 1,3-dichlorbenzen

DE: 1,3-Dichlorbenzol

EL: 1,3-διχλωροβενζόλιο

EN: 1,3-dichlorbenzene

FR: 1,3-dichlorobenzène

IT: 1,3-diclorobenzene

NL: 1,3-dichloorbenzeen

PT: 1,3-diclorobenzeno

FI: 1,3-diklooribentseeni

SV: 1,3-diklorbenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | N; R 51-53 |
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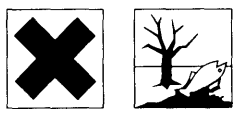
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 22-51/53

**S:** (2-)61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 764-41-0 | EEC No 212-121-8 | No 602-073-00-X |
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NOTA E

$CH_2Cl - CH = CH - CH_2Cl$

ES: 1,4-diclorobut-2-eno

DA: 1,4-dichlorbut-2-en

DE: 1,4-Dichlorbut-2-en

EL: 1,4-διχλωροβουτ-2-ένιο

EN: 1,4-dichlorobut-2-ene

FR: 1,4-dichlorobut-2-ène

IT: 1,4-diclorobut-2-ene

NL: 1,4-dichloorbut-2-een

PT: 1,4-diclorobut-2-eno

FI: 1,4-diklooributt-2-eeni

SV: 1,4-diklorbut-2-en

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T+; R 26 | T; R 24/25 | C; R 34 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 45-24/25-26-34-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 608-93-5 | EEC No 210-172-0 | No 602-074-00-5 |
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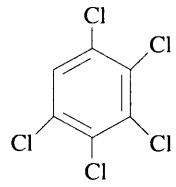


ES: pentaclorobenceno

DA: pentachlorbenzen

DE: Pentachlorbenzol

EL: πενταχλωροβενζόλιο

EN: pentachlorobenzene

FR: pentachlorobenzène

IT: pentaclorobenzene

NL: pentachloorbenzeen

PT: pentaclorobenzeno

FI: pentaklooribentseeni

SV: pentaklorbenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| F; R 11 | Xn; R 22 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn N

**R:** 11-22-50/53

**S:** (2-)41-46-50-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 2431-50-7 | EEC No 219-397-9 | No 602-076-00-6 |
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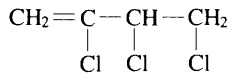

ES: 2,3,4-triclorobut-1-eno

DA: 2,3,4-trichlorbut-1-en

DE: 2,3,4-Trichlorbut-1-en

EL: 2,3,4-τριχλωροβουτ-1-ένιο

EN: 2,3,4-trichlorobut-1-ene

FR: 2,3,4-trichlorobut-1-ène

IT: 2,3,4-triclorobut-1-ene

NL: 2,3,4-trichloorbut-1-een

PT: 2,3,4-triclorobut-1-eno

FI: 2,3,4-triklooributt-1-eeni

SV: 2,3,4-triklorbut-1-en

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|---|
| T; R 23 | Carc. Cat 3; R 40 | Xn; R 22 | Xi; R 36/37/38 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 22-23-36/37/38-40-50/53

**S:** (1/2-)36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 120-83-2 | EEC No 204-429-6 | No 604-011-00-7 |
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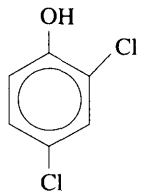


ES: 2,4-diclorofenol

DA: 2,4-dichlorphenol

DE: 2,4-Dichlorphenol

EL: 2,4-διχλωροφαινόλη

EN: 2,4-dichlorophenol

FR: 2,4-dichlorophénol

IT: 2,4-diclorofenolo

NL: 2,4-dichloorfenol

PT: 2,4-diclorofenol

FI: 2,4-dikloorifenoli

SV: 2,4-diklorfenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 | N; R 51-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C N

**R:** 21/22-34-51/53

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 59-50-7 | EEC No 200-431-6 | No 604-014-00-3 |
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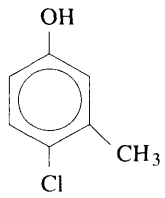


ES: clorocresol

DA: chlorocresol

DE: Chlorkresol; 4-Chlor-3-methylphenol

EL: χλωροκρεζόλη

EN: chlorocresol; 4-chloro-m-cresol; 4-chloro-3-methylphenol

FR: chlorocrésol

IT: clorocresolo

NL: chloorkresol

PT: clorocresol

FI: kloorikresoli; 4-kloori-3-metyylifenoli

SV: klorkresol; 4-klor-3-metylfenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | Xi; R 41 | R 43 | N; R 50 |
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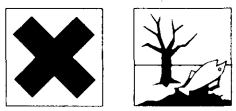
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 21/22-41-43-50

**S:** (2-)26-36/37/39-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 10 % | Xn; R 21/22-41-43 |
| 5 % ≤ C < 10 % | Xn; R 21/22-36-43 |
| 1 % ≤ C < 5 % | Xi; R 43 |
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| Cas No 50-00-0 | EEC No 200-001-8 | No 605-001-00-5 |
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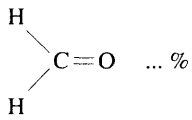
NOTA B
NOTA D




ES: formaldehído ... %

DA: formaldehyd ... %

DE: Formaldehyd ... %

EL: φορμαλδεΰδη ... %

EN: formaldehyde ... %

FR: formaldéhyde ... %

IT: formaldeide ... %

NL: formaldehyde ... %

PT: formaldeído ... %

FI: formaldehydi ... %

SV: formaldehyd ... %

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | T; R 23/24/25 | C; R 34 | R 43 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 23/24/25-34-40-43

**S:** (1/2-)26-36/37/39-45-51

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 25 % | T; R 23/24/25-34-40-43 |
| 5 % ≤ C < 25 % | Xn; R 20/21/22-36/37/38-40-43 |
| 1 % ≤ C < 5 % | Xn; R 40-43 |
| 0,2 % ≤ C < 1 % | Xi; R 43 |
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| Cas No 541-41-3 | EEC No 208-778-5 | No 607-020-00-4 |
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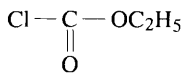

ES: cloroformiato de etilo

DA: ethylchlorformiat

DE: Ethylchlorformiat; Chlorameisensäureethylester

EL: χλωρομυρμηκικό αιθυλο

EN: ethyl chloroformate

FR: chloroformiate d'éthyle

IT: cloroformiato di etile

NL: ethylchloorformiaat

PT: cloroformato de etilo

FI: etyyliklooriformiaatti

SV: etylklorformiat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | T+; R 26 | Xn; R 22 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F T+

**R:** 11-22-26-34

**S:** (1/2-)9-16-26-28-33-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 98-95-3 | EEC No 202-716-0 | No 609-003-00-7 |
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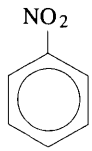


ES: nitrobenceno

DA: nitrobenzen

DE: Nitrobenzol

EL: νιτροβενζόλιο

EN: nitrobenzene

FR: nitrobenzène

IT: nitrobenzene

NL: nitrobenzeen

PT: nitrobenzeno

FI: nitrobentseeni

SV: nitrobenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | Repr. Cat. 3; R 62 | T; R 23/24/25-48/23/24 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-40-48/23/24-51/53-62

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 610-003-00-4 |
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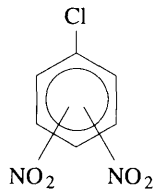
NOTA C




ES: clorodinitrobenceno

DA: chlordinitrobenzen

DE: Chlordinitrobenzol

EL: χλωροδινιτροβενζόλιο

EN: chlorodinitrobenzene

FR: chlorodinitrobenzène

IT: dinitroclorobenzene

NL: dinitrochloorbenzeen

PT: clorodinitrobenzeno

FI: klooridinitrobentseeni

SV: klordinitrobenzen, alla isomerer

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24/25 | R 33 | N; R 50-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-33-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 610-006-00-0 |
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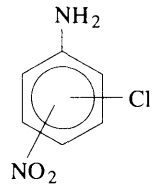
NOTA C




ES: cloronitroanilinas excepto aquellos específicamente expresados en este Anexo

DA: chlornitroaniliner undtagen sådanne nævnt andetsteds i dette bilag

DE: Chlornitroanilin mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: χλωρονιτροανιλίνες εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: chloronitroanilines with the exception of those specified elsewhere in this Annex

FR: chloronitroanilines à l'exception de ceux nommément désignés dans cette annexe

IT: cloronitroaniline escluse quelle espressamente indicate in questo allegato

NL: chloornitroanilines met uitzondering van de in deze bijlage met name genoemde

PT: cloronitroanilinas com excepção dos expressamente referidos no presente anexo

FI: kloorinitroaniliinit paitsi muualla tässä liitteessä mainitut

SV: klornitroaniliner med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| T+; R 26/27/28 | R 33 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 26/27/28-33-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | 74-89-5 [1]<br>124-40-3 [2]<br>75-50-3 [3] |
|---|---|

| EEC No | 200-820-0 [1]<br>204-697-4 [2]<br>200-875-0 [3] |
|---|---|

No 612-001-00-9

$CH_3NH_2$ [1]
$(CH_3)_2NH$ [2]
$(CH_3)_3N$ [3]

ES: metilamina (mono-[1], di-[2] y tri-[3])

DA: methylamin (mono-[1], di-[2] y tri-[3])

DE: Methylamin (mono-[1], di-[2] und tri-[3])

EL: μεθυλαμίνη (μονο-[1], δι-[2] και τρι-[3])

EN: methylamine (mono-[1], di-[2] and tri-[3])

FR: méthylamine (mono-[1], di-[2] et tri-[3])

IT: metilamina (mono-[1], di-[2] e tri-[3])

NL: methylamine (mono-[1], di-[2] en tri-[3])

PT: metilamina (mono-[1], di-[2] e tri-[3])

FI: metyyliamiini (mono-[1], di-[2] ja tri-[3])

SV: metylamin (mono-[1], di-[2] och tri-[3])

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F+; R 12 | Xn; R 20 | Xi; R 37/38-41 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ Xn

**R:** 12-20-37/38-41

**S:** (2-)16-26-39

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 5 % | Xn; R 20-37/38-41 |
| 0,5 % ≤ C < 5 % | Xi; R 36 |
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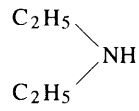
NOTA 5

| Cas No 109-89-7 | EEC No 203-716-3 | No 612-003-00-X |
|---|---|---|



ES: dietilamina

DA: diethylamin

DE: Diethylamin

EL: διαιθυλαμίνη

EN: diethylamine

FR: diéthylamine

IT: dietilamina

NL: diethylamine

PT: dietilamina

FI: dietyyliamiini

SV: dietylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | Xn; R 20/21/22 | C; R 35 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C

**R:** 11-20/21/22-35

**S:** (1/2-)3-16-26-29-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 20/21/22-35 |
| 10 % ≤ C < 25 % | C; R 35 |
| 5 % ≤ C < 10 % | C; R 34 |
| 1 % ≤ C < 5 % | Xi; R 36/37/38 |
| | |
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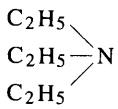
| Cas No 121-44-8 | EEC No 204-469-4 | No 612-004-00-5 |
|---|---|---|



ES: trietilamina

DA: triethylamin

DE: Triethylamin

EL: τριαιθυλαμίνη

EN: triethylamine

FR: triéthylamine

IT: trietilamina

NL: triethylamine

PT: trietilamina

FI: trietyyliamiini

SV: trietylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| F; R 11 | Xn; R 20/21/22 | C; R 35 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C

**R:** 11-20/21/22-35

**S:** (1/2-)3-16-26-29-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 20/21/22-35 |
| 10 % ≤ C < 25 % | C; R 35 |
| 5 % ≤ C < 10 % | C; R 34 |
| 1 % ≤ C < 5 % | Xi; R 36/37/38 |
| | |
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| Cas No 109-73-9 | EEC No 203-699-2 | No 612-005-00-0 |
|---|---|---|

$C_4H_9 — NH_2$

ES: butilamina

DA: butylamin

DE: Butylamin; 1-Amino-butan

EL: βουτυλαμίνη

EN: butylamine

FR: butylamine

IT: butilamina

NL: butylamine

PT: butilamina

FI: butyyliamiini

SV: butylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| F; R 11 | Xn; R 20/21/22 | C; R 35 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C

**R:** 11-20/21/22-35

**S:** (1/2-)3-16-26-29-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 20/21/22-35 |
| 10 % ≤ C < 25 % | C; R 35 |
| 5 % ≤ C < 10 % | C; R 34 |
| 1 % ≤ C < 5 % | Xi; R 36/37/38 |
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| Cas No 107-15-3 | EEC No 203-468-6 | No 612-006-00-6 |
|---|---|---|

$$H_2N — CH_2 — CH_2 — NH_2$$

ES: etilendiamina

DA: ethylendiamin

DE: Ethylendiamin; 1,2-Diamino-ethan

EL: αιθυλενοδιαμίνη

EN: ethylenediamine; 1,2-diaminoethane

FR: éthylénediamine

IT: etilendiamina

NL: ethyleendiamine

PT: etilenodiamina

FI: etyleenidiamiini; 1,2 diaminoetaani

SV: etylendiamin; 1,2-diaminoetan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 10 | Xn; R 21/22 | C; R 34 | R 42/43 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 10-21/22-34-42/43

**S:** (1/2-)23-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 21/22-34-42/43 |
| 10 % ≤ C < 25 % | C; R 34-42/43 |
| 2 % ≤ C < 10 % | Xn; R 36/38-42/43 |
| 1 % ≤ C < 2 % | Xn; R 42/43 |
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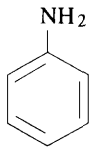
| Cas No — | EEC No — | No 612-009-00-2 |
|---|---|---|

NOTA A




ES: sales de anilina

DA: salte af anilin

DE: Salze von Anilin

EL: άλατα ανιλίνης

EN: salts of aniline

FR: sels d'aniline

IT: sali di anilina

NL: zouten van aniline

PT: sais de anilina

FI: aniliinin suolat

SV: anilin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | T; R 48/23/24/25 | Xn; R 20/21/22 | N; R 50 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 20/21/22-40-48/23/24/25-50

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 1 % | T; R 20/21/22-40-48/23/24/25 |
| 0,2 % ≤ C < 1 % | Xn; R 48/20/21/22 |
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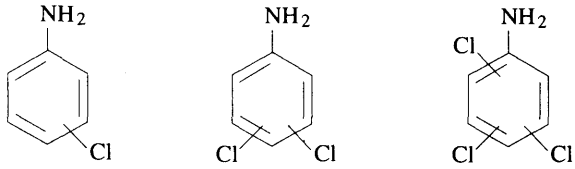
| Cas No — | EEC No — | No 612-010-00-8 |
|---|---|---|

NOTA C



ES: cloroanilina (mono-, di-, tri-)

DA: chloranilin (mono-, di- og tri-)

DE: Chloranilin (mono-, di- und tri-)

EL: χλωροανιλίνη (μονο-, δι- και τρι-)

EN: chloroaniline (mono-, di- and tri-)

FR: chloroaniline (mono-, di- et tri-)

IT: cloroanilina (mono-, di- e tri-)

NL: chlooraniline (mono-, di- en tri-)

PT: cloroanilina (mono-, di- e tri-)

FI: kloorianiliini (mono-, di- ja tri-)

SV: kloranilin (mono-, di- och tri-); klorbenzenamin (mono-, di- och tri-)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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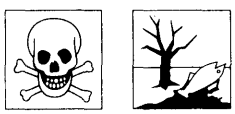
|---|---|---|
| T; R 23/24/25 | R 33 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N



**R:** 23/24/25-33-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 121-57-3 | EEC No 204-482-5 | No 612-014-00-X |
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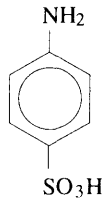


ES: ácido sulfanílico

DA: sulfanilsyre

DE: Sulfanilsäure; 4-Amino-benzolsulfonsäure

EL: σουλφανιλικό οξύ

EN: sulphanilic acid; 4-aminobenzenesulphonic acid

FR: acide sulfanilique

IT: acido solfanilico; 4-aminobenzensolfonico

NL: sulfanilzuur

PT: ácido sulfanílico

FI: sulfaniilihappo; 4-aminobentseenisulfonihappo

SV: sulfanilinsyra; 4-aminobenzensulfonsyra

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/38 | R 43 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi

**R:** 36/38-43

**S:** (2-)24-37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 100-61-8 | EEC No 202-870-9 | No 612-015-00-5 |
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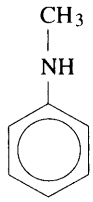

ES: N-metilanilina

DA: N-methylanilin

DE: N-Methylanilin

EL: Ν-μεθυλανιλίνη

EN: N-methylaniline

FR: N-méthylaniline

IT: N-metilanilina

NL: N-methylaniline

PT: N-metilanilina

FI: N-metyylianiliini

SV: N-metylanilin; N-metylbenzenamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24/25 | R 33 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-33-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 121-69-7 | EEC No 204-493-5 | No 612-016-00-0 |
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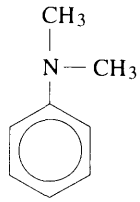

ES: N,N-dimetilanilina

DA: N,N-dimethylanilin

DE: N,N-Dimethylanilin

EL: N,N-διμεθυλανιλίνη

EN: N,N-dimethylaniline

FR: N,N-diméthylaniline

IT: N,N-dimetilanilina

NL: N,N-dimethylaniline

PT: N,N-dimetilanilina

FI: N,N-dimetyylianiliini

SV: N,N-dimetylanilin; N,N-dimetylbenzenamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | T; R 23/24/25 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-40-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 2844-92-0 | EEC No 220-639-0 | No 612-019-00-7 |
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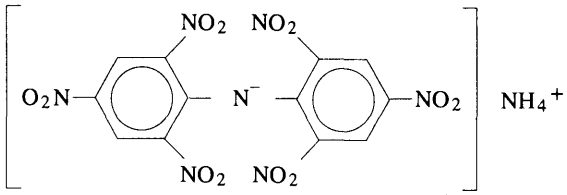

ES: dipicrilamina, sal amónica

DA: dipicrylamin, ammoniumsalt

DE: Dipikrylamin, Ammoniumsalz; Ammonium-bis(2,4,6-trinitrophenyl)amin

EL: διπικρυλαμίνη, το άλας με αμμώνιο

EN: dipicrylamine, ammonium salt

FR: dipicrylamine, sel d'ammonium

IT: dipicrilamina, sale di ammonio

NL: dipicrylamine, ammoniumzout

PT: dipicrilamina, sal de amónio

FI: dipikryyliamiini, ammonium suola

SV: ammoniumbis(2,4,6-trinitrofenyl)amin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|---|
| E | R 1 | T+; R 26/27/28 | R 33 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

E T+ N

**R:** 1-26/27/28-33-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 134-32-7 | EEC No 205-138-7 | No 612-020-00-2 |
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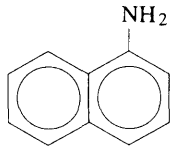



ES: 1-naftilamina

DA: 1-naphthylamin

DE: 1-Naphthylamin

EL: 1-ναφθυλαμίνη

EN: 1-naphthylamine

FR: 1-naphtylamine

IT: 1-naftilamina

NL: 1-naftylamine

PT: 1-naftilamina

FI: 1-naftyyliamiini

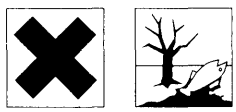
SV: 1-naftylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | N; R 51-53 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 22-51/53

**S:** (2-)24-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 91-59-8 | EEC No 202-080-4 | No 612-022-00-3 |
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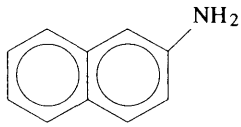
NOTA E




ES: 2-naftilamina

DA: 2-naphthylamin

DE: 2-Naphthylamin

EL: 2-ναφθυλαμίνη

EN: 2-naphthylamine

FR: 2-naphtylamine

IT: 2-naftilamina

NL: 2-naftylamine

PT: 2-naftilamina

FI: 2-naftyyliamiini

SV: 2-naftylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 1; R 45 | Xn; R 22 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 25 % | T; R 45-22 |
| 0,01 % ≤ C < 25 % | T; R 45 |
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| Cas No — | EEC No — | No 612-025-00-X |
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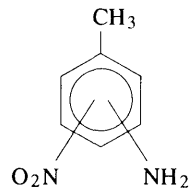
NOTA C




ES: nitrotoluidina

DA: nitrotoluidin

DE: Nitrotoluidin

EL: νιτροτολουιδίνη

EN: nitrotoluidine

FR: nitrotoluidine

IT: nitrotoluidina

NL: nitrotoluidine

PT: nitrotoluídina

FI: nitrotoluidiini

SV: nitrotoluidin; aminometylnitrobenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24/25 | R 33 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-33-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 122-39-4 | EEC No 204-539-4 | No 612-026-00-5 |
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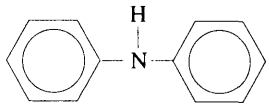

ES: difenilamina

DA: diphenylamin

DE: Diphenylamin

EL: διφαινυλαμίνη

EN: diphenylamine

FR: diphénylamine

IT: difenilamina

NL: difenylamine

PT: difenilamina

FI: difenyyliamiini

SV: difenylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| T; R 23/24/25 | R 33 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-33-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 612-027-00-0 |
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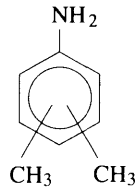
NOTA C




ES: xilidina

DA: xylidin

DE: Xylidin

EL: ξυλιδίνη

EN: xylidine

FR: xylidine

IT: xilidina

NL: xylidine

PT: xilidina

FI: ksylidiini

SV: xylidin; aminodimetylbenzen

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| T; R 23/24/25 | R 33 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-33-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 95-54-5 [1]<br>108-45-2 [2]<br>106-50-3 [3] | EEC No 202-430-6 [1]<br>203-584-7 [2]<br>203-404-7 [3] | No 612-028-00-6 |
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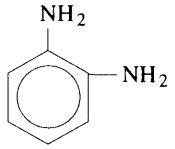
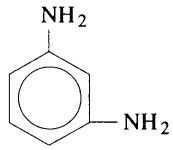
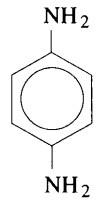
NOTA C



[1]



[2]



[3]

ES: *o*-fenilendiamina [1]; *m*-fenilendiamina [2]; *p*-fenilendiamina [3]

DA: *o*-phenylendiamin [1]; *m*-phenylendiamin [2]; *p*-phenylendiamin [3]

DE: *o*-Phenylendiamin [1]; *m*-Phenylendiamin [2]; *p*-Phenylendiamine [3]

EL: *o*-φαινυλενοδιαμίνη [1]· *μ*-φαινυλενοδιαμίνη [2]· π-φαινυλενοδιαμίνη [3]

EN: *o*-phenylenediamine [1]; *m*-phenylenediamine [2]; *p*-phenylenediamine [3]

FR: *o*-phénylènediamine [1]; *m*-phénylènediamine [2]; *p*-phénylènediamine [3]

IT: *o*-fenilendiamina [1]; *m*-fenilendiamina [2]; *p*-fenilendiamina [3]

NL: *o*-fenyleendiamine [1]; *m*-fenyleendiamine [2]; *p*-fenyleendiamine [3]

PT: *o*-fenilenodiamina [1]; *m*-fenilenodiamina [2]; *p*-fenilenodiamina [3]

FI: *o*-fenyleenidiamiini [1]; *m*-fenyleenidiamiini [2]; *p*-fenyleenidiamiini [3]

SV: *o*-fenylendiamin [1]; *m*-fenylendiamin [2]; *p*-fenylendiamin [3]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| T; R 23/24/25 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/24/25-43-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 5 % | T; R 23/24/25-43 |
| 1 % ≤ C < 5 % | Xn; R 20/21/22-43 |
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| Cas No 541-69-5 [1]<br>624-18-0 [2] | EEC No 208-790-0 [1]<br>210-834-9 [2] | No 612-029-00-1 |
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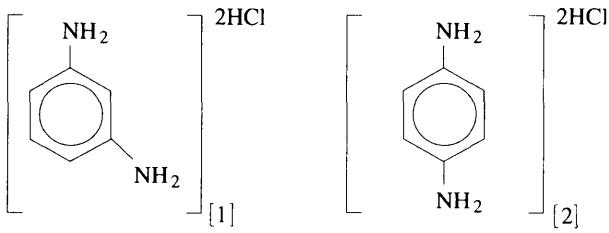
NOTA C




ES: *m*-fenilenodiamina, diclorhidrato [1]; benceno-1,4-diamina, diclorhidrato [2]

DA: *m*-phenylendiamindihydrochlorid [1]; benzen-1,4-diamindihydrochlorid [2]

DE: *m*-Phenylendiamindihydrochlorid [1]; Benzol-1,4-diamindihydrochlorid [2]; 1,3-Phenylendiamindihydrochloride [1]; 1,4-Phenylendiamin-dihydrochloride [2]

EL: μ-φαινυλενοδιαμίνη, διυδροχλωρική [1]· βενζολο-1,4-διαμίνη διυδροχλωρική [2]

EN: *m*-phenylenediamine dihydrochloride [1], benzene-1,4-diamine dihydrochloride [2]; benzene-1,3-diamine hydrochloride [1]; *p*-phenylenediamine, dihydrochloride [2]

FR: *m*-phénylènediamine, dichlorhydrate [1]; benzène-1,4-diamine, dichlorhydrate [2]

IT: *m*-fenilendiamina, dicloridrato [1]; benzen-1,4-diamina, dicloridrato [2]

NL: *m*-fenyleendiaminedihydrochloride [1]; benzeen-1,4-diaminedihydrochloride [2]

PT: *m*-fenilenodiamina, dicloridrato [1]; benzeno-1,4-diamina, dicloridrato [2]

FI: *m*-fenyleenidiamiinidihydrokloridi [1]; *p*-fenyleenidiamiinidihydrokloridi [2]

SV: *m*-fenylendiamindihydroklorid [1]; *p*-fenylendiamindihydroklorid [2]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24/25 | R 43 | N; R 50-53 |
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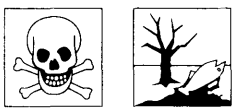
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N



**R:** 23/24/25-43-50/53

**S:** (1/2-)28-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 615-50-9<br>6369-59-1 | EEC No 210-431-8<br>228-871-4 | No 612-030-00-7 |
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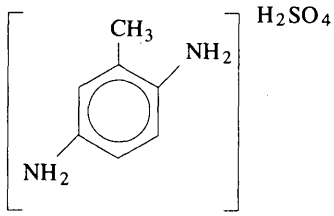


ES: sulfato de 2-metil-*p*-fenilendiamina

DA: 2-methyl-*p*-phenylendiaminsulfat

DE: 2-Methyl-*p*-phenylendiaminsulfat; Toluylen-2,5-diaminsulfat

EL: θειική 2-μεθυλο-π-φαινυλενοδιαμίνη

EN: 2-methyl-*p*-phenylenediamine sulphate

FR: sulfate de 2-méthyl-*p*-phénylènediamine; sulfate de 2,5-diaminotoluène

IT: solfato di 2-metil-*p*-fenilendiamina; 2,5-diaminotoluene solfato

NL: 2-methyl-*p*-fenyleendiaminesulfaat

PT: sulfato de 2-metil-*p*-fenilenodiamina

FI: 2-metyyli-*p*-fenyleenidiamiinisulfaatti

SV: 2-metyl-*p*-fenylendiaminsulfat; 2-metyl-1,4-benzendiaminsulfat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 25 | Xn; R 20/21 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 20/21-25-43-50/53

**S:** (1/2-)24-37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 2836-04-6 [1]<br>99-98-9 [2] | EEC No 220-623-3 [1]<br>202-807-5 [2] | No 612-031-00-2 |
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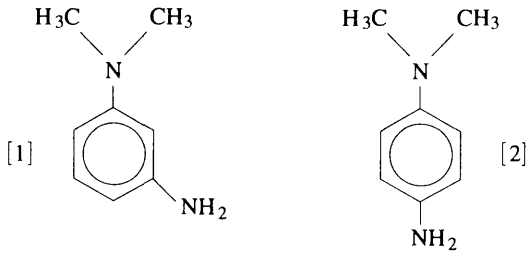
NOTA C




ES: *N,N*-dimetilbenceno-1,3-diamina [1]; 4-amino-N,N-dimetilanilina [2]

DA: *N,N*-dimethylbenzen-1,3-diamin [1]; 4-amino-N,N-dimethylanilin [2]

DE: *N,N*-Dimethylbenzol-1,3-diamin [1]; 4-Amino-N,N-dimethylanilin [2]; *N,N*-Dimethylphenylendiamin *(m,p)*

EL: *N,N*-διμεθυλοβενζολο-1,3-διαμίνη [1]· 4-αμινο-N,N-διμεθυλανιλίνη [2]

EN: *N,N*-dimethylbenzene-1,3-diamine [1]; 4-amino-N,N-dimethylaniline [2]; 3-amino-*N,N'*-dimethylaniline [1]; *N,N'*-dimethylbenzene-1,4-diamine

FR: *N,N*-diméthylbenzène-1,3-diamine [1]; 4-amino-N,N-diméthylaniline [2]

IT: *N,N*-dimetilbenzen-1,3-diamina [1]; 4-amino-N,N-dimetilanilina [2]

NL: *N,N*-dimethylbenzeen-1,3-diamine [1]; 4-amino-N,N-dimethylaniline [2]

PT: *N,N*-dimetilbenzeno-1,3-diamina [1]; 4-amino-N,N-dimetilanilina [2]

FI: *N,N*-dimetyylibentseeni-1,3-diamiini [1]; 4-amino-N,N-dimetyylianiliini [2]

SV: *N,N*-dimetyl-1,3-benzendiamin [1]; N,N-dimetyl-1,4-benzendiamin [2]; *N,N*-dimetylfenylendiamin (*m, p*)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

T; R 23/24/25

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 23/24/25

**S:** (1/2-)28-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 95-55-6 | EEC No 202-431-1 | No 612-033-00-3 |
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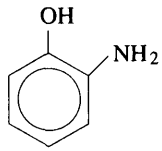


ES: 2-aminofenol

DA: 2-aminophenol

DE: 2-Aminophenol

EL: 2-αμινοφαινόλη

EN: 2-aminophenol

FR: 2-aminophénol

IT: 2-aminofenolo

NL: 2-aminofenol

PT: 2-aminofenol

FI: 2-aminofenoli

SV: 2-aminofenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 20/22 | Muta. Cat. 3; R 40 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 20/22-40

**S:** (2-)28-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 96-96-8 | EEC No 202-547-2 | No 612-038-00-0 |
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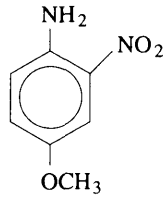


ES: 2-nitro-*p*-anisidina

DA: 2-nitro-*p*-anisidin

DE: 2-Nitro-*p*-anisidin; 4-Methoxy-2-nitro-anilin

EL: 2-νιτρο-π-ανισιδίνη

EN: 2-nitro-*p*-anisidine; 4-methoxy-2-nitroaniline

FR: 2-nitro-*p*-anisidine

IT: 2-nitro*p*-anisidina; 2-nitro-4-metossianilina

NL: 2-nitro-*p*-anisidine

PT: 2-nitro-*p*-anisidina

FI: 2-nitro-*p*-anisidiini; 4-metoksi-2-nitroaniliini

SV: 2-nitro-*p*-anisidin; 4-metoxi-2-nitro-anilin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26/27/28 | R 33 | R 52-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+

**R:** 26/27/28-33-52/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 97-02-9 | EEC No 202-553-5 | No 612-040-00-1 |
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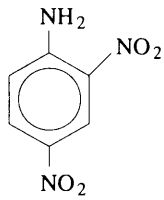

ES: 2,4-dinitroanilina

DA: 2,4-dinitroanilin

DE: 2,4-Dinitroanilin

EL: 2,4-δινιτροανιλίνη

EN: 2,4-dinitroaniline

FR: 2,4-dinitroaniline

IT: 2,4-dinitroanilina

NL: 2,4-dinitroaniline

PT: 2,4-dinitroanilina

FI: 2,4-dinitroaniliini

SV: 2,4-dinitroanilin; 2,4-dinitrobenzamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26/27/28 | R 33 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 26/27/28-33-51/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 119-93-7 | EEC No 204-358-0 | No 612-041-00-7 |
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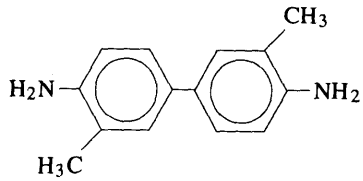
NOTA E




ES: 4,4'-bi-*o*-toluidina

DA: 4,4'-bi-*o*-toluidin

DE: 4,4'-Bi-*o*-toluidin; 3,3'-Dimethylbenzidin

EL: 4,4'-δι-*o*-τολουδίνη

EN: 4,4'-bi-*o*-toluidine

FR: 4,4'-bi-*o*-toluidine

IT: 4,4'-bi-*o*-toluidina; 3,3'-dimetilbenzidina

NL: 4,4'-bi-*o*-toluidine

PT: 4,4'-bi-*o*-toluídina

FI: 4,4'-bi-*o*-toluidiini

SV: 4,4'-bi-*o*-toluidin; 3,3'-dimetylbenzidin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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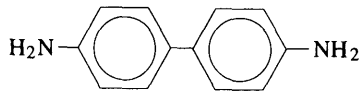
| Cas No 92-87-5 | EEC No 202-199-1 | No 612-042-00-2 |
|---|---|---|

NOTA E



ES: bencidina

DA: benzidin

DE: Benzidin

EL: βενζιδίνη

EN: benzidine

FR: benzidine

IT: benzidina; 1,1'-bifenil-4,4' diamina

NL: benzidine

PT: benzidina

FI: bentsidiini

SV: benzidin; 1,1'-bifenyl-4,4'-diamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 1; R 45 | Xn; R 22 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 107-11-9 | EEC No 203-463-9 | No 612-046-00-4 |
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$$CH_2=CH-CH_2-NH_2$$

ES: alilamina

DA: allylamin

DE: Allylamin

EL: αλλυλαμίνη

EN: allylamine

FR: allylamine

IT: allilamina

NL: allylamine

PT: alilamina

FI: allyyliamiini

SV: allylamin; 2-propen-1-amin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| F; R 11 | T; R 23/24/25 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F T N

**R:** 11-23/24/25-51/53

**S:** (1/2-)9-16-24/25-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 100-46-9 | EEC No 202-854-1 | No 612-047-00-X |
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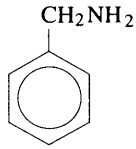


ES: bencilamina

DA: benzylamin

DE: Benzylamin

EL: βενζυλαμίνη

EN: benzylamine

FR: benzylamine

IT: benzilamina

NL: benzylamine

PT: benzilamina

FI: bentsyyliamiini

SV: benzylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 21/22-34

**S:** (1/2-)26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 142-84-7 | EEC No 205-565-9 | No 612-048-00-5 |
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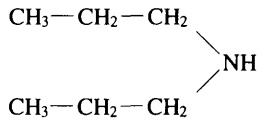

ES: dipropilamina

DA: dipropylamin

DE: Dipropylamin

EL: διπροπυλαμίνη

EN: dipropylamine

FR: dipropylamine

IT: dipropilamina

NL: dipropylamine

PT: dipropilamina

FI: dipropyyliamiini

SV: dipropylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | Xn; R 20/21/22 | C; R 35 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C

**R:** 11-20/21/22-35

**S:** (1/2-)16-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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|---|---|
| C ≥ 25 % | C; R 20/21/22-35 |
| 10 % ≤ C < 25 % | C; R 35 |
| 5 % ≤ C < 10 % | C; R 34 |
| 1 % ≤ C < 5 % | Xi; R 36/37/38 |
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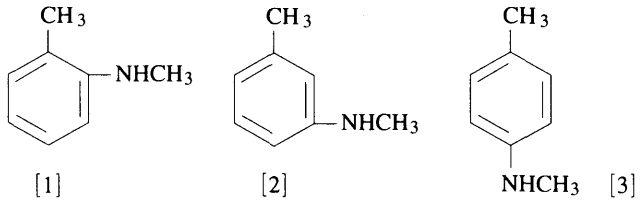
| Cas No 611-21-2 [1]<br>696-44-6 [2]<br>623-08-5 [3] | EEC No 210-260-9 [1]<br>211-795-0 [2]<br>210-769-6 [3] | No 612-055-00-3 |
|---|---|---|

NOTA C




[1] [2] [3]

ES: N-metil-o-toluidina [1]; *N*-metil-*m*-toluidina [2]; *N*-metil-*p*-toluidina [3]

DA: N-methyl-o-toluidin [1]; *N*-methyl-*m*-toluidin [2]; *N*-methyl-*p*-toluidin [3]

DE: N-Methyl-o-toluidin [1]; *N*-Methyl-*m*-toluidin [2]; *N*-Methyl-*p*-toluidin [3]

EL: N-μεθυλο-ο-τολουιδίνη [1]· *N*-μεθυλο-*μ*-τολουιδίνη [2]· *N*-μεθυλο-*π*-τολουιδίνη [3]

EN: N-methyl-o-toluidine [1]; *N*-methyl-*m*-toluidine [2]; *N*-methyl-*p*-toluidine [3]

FR: N-méthyl-o-toluidine [1]; *N*-méthyl-*m*-toluidine [2]; *N*-méthyl-*p*-toluidine [3]

IT: N-metil-o-toluidina [1]; *N*-metil-*m*-toluidina [2]; *N*-metil-*p*-toluidina [3]

NL: N-methyl-o-toluïdine [1]; *N*-methyl-*m*-toluïdine [2]; *N*-methyl-*p*-toluïdine [3]

PT: N-metil-o-toluídina [1]; *N*-metil-*m*-toluídina [2]; *N*-metil-*p*-toluídina [3]

FI: N-metyyli-o-toluidiini [1]; *N*-metyyli-*m*-toluidiini [2]; *N*-metyyli-*p*-toluidiini [3]

SV: N-metyl-o-toluidin [1]; *N*-metyl-*m*-toluidin [2]; *N*-metyl-*p*-toluidin [3]; N,2-dimetylbenzenamin [1]; *N*,3-dimetylbenzenamin [2]; *N*,4-dimetylbenzenamin [3]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24/25 | R 33 | R 52-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 23/24/25-33-52/53

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 110-85-0 | EEC No 203-808-3 | No 612-057-00-4 |
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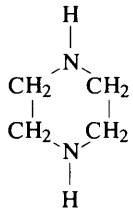

ES: piperazina

DA: piperazin

DE: Piperazin

EL: πιπεραζίνη

EN: piperazine

FR: pipérazine

IT: piperazina

NL: piperazine

PT: piperazina

FI: piperatsiini

SV: piperazin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | |
|---|---|---|
| C; R 34 | R 42/43 | R 52/53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 34-42/43-52/53

**S:** (1/2-)22-26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 56-18-8 | EEC No 200-261-2 | No 612-063-00-7 |
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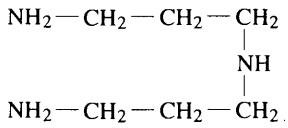

ES: 3,3'-iminodi(propilamina)

DA: 3,3'-iminodi(propylamin)

DE: 3,3'-Iminodi(propylamin); Dipropylentriamin

EL: 3,3'-ιμινοδι(προπυλαμίνη)

EN: 3,3'-iminodi(propylamine); dipropylenetriamine

FR: 3,3'-iminodi(propylamine); dipropylènetriamine

IT: 3,3'-iminodi(propilamina); dipropilenetriamina

NL: 3,3'-iminodi(propylamine)

PT: 3,3'-iminodi(propilamina)

FI: 3,3'-iminodi(propyyliamiini); dipropyleenitriamiini

SV: 4-azaheptan-1,7-diamin; dipropylentriamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26 | T; R 24 | Xn; R 22 | C; R 35 | R 43 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ C

**R:** 22-24-26-35-43

**S:** (1/2-)26-28-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 612-065-00-8 |
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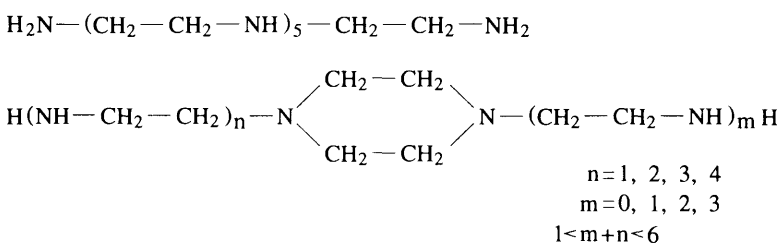


ES: polietilenpolyaminas excepto aquellos específicamente expresados en este Anexo

DA: polyethylenpolyaminer undtagen sådanne nævnt andetsteds i dette bilag

DE: Polyethylenpolyamine mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: πολυαιθυλενοπολυαμίνες, εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: polyethlyenepolyamines with the exception of those specified elsewhere in this Annex

FR: polyéthylènepolyamines, à l'exception de ceux nommément désignés dans cette annexe

IT: polietilenpoliamine escluse quelle espressamente indicate in questo allegato

NL: polyethyleenpolyamine met uitzondering van de in deze bijlage met name genoemde

PT: polietilenopoliaminas com excepção dos expressamente referidos no presente anexo

FI: polyetyleenipolyamiinit paitsi muualla tässä liitteessä mainitut

SV: polyetylenpolyaminer med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 | R 43 | N; R 50-53 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C N

**R:** 21/22-34-43-50/53

**S:** (1/2-)26-36/37/39-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 21/22-34-43 |
| 10 % ≤ C < 25 % | C; R 34-43 |
| 5 % ≤ C < 10 % | Xi; R 36/38-43 |
| 1 % ≤ C < 5 % | Xi; R 43 |
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| Cas No 101-83-7 | EEC No 202-980-7 | No 612-066-00-3 |
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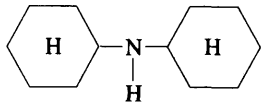

ES: diciclohexilamina

DA: dicyclohexylamin

DE: Dicyclohexylamin

EL: δικυκλοεξυλαμίνη

EN: dicyclohexylamine

FR: dicyclohexylamine

IT: dicicloesilamina

NL: dicyclohexylamine

PT: diciclohexilamina

FI: disykloheksyyliamiini

SV: dicyklohexylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | C; R 34 | N; R 50-53 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C N

**R:** 22-34-50/53

**S:** (1/2-)26-36/37/39-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 22-34 |
| 10 % ≤ C < 25 % | C; R 34 |
| 2 % ≤ C < 10 % | Xi; R 36/38 |
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| Cas No 2855-13-2 | EEC No 220-666-8 | No 612-067-00-9 |
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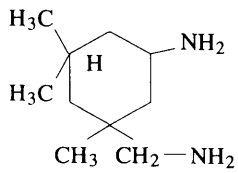

ES: 3-aminometil-3,5,5-trimetilciclohexilamina

DA: 3-aminomethyl-3,5,5-trimethylcyclohexylamin

DE: 3-Aminomethyl-3,5,5-trimethylcyclohexylamin

EL: 3-αμινομεθυλο-3,5,5-τριμεθυλοκυκλοεξυλαμίνη

EN: 3-aminomethyl-3,5,5-trimethylcyclohexylamine

FR: 3-aminométhyl-3,5,5-triméthylcyclohexylamine; isophoronediamine

IT: 3-aminometil-3,5,5-trimetilcicloesilamina

NL: 3-aminomethyl-3,5,5-trimethylcyclohexylamine

PT: 3-aminometil-3,5,5-trimetilciclohexilamina

FI: 3-aminometyyli-3,5,5-trimetyylisykloheksyyliamiini; isoforonidiamiini

SV: 3-aminometyl-3,5,5-trimetylcycklohexylamino; isoforondiamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 | R 43 | R 52-53 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 21/22-34-43-52/53

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

| | |
|---|---|
| C ≥ 25 % | C; R 21/22-34-43 |
| 10 % ≤ C < 25 % | C; R 34-43 |
| 5 % ≤ C < 10 % | Xi; R 36/38-43 |
| 1 % ≤ C < 5 % | Xi; R 43 |
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| | |

| Cas No | 612-83-9<br>64969-34-2<br>74332-73-3 |
|---|---|

| EEC No | 210-323-0<br>265-293-1<br>277-822-3 |
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No 612-069-00-X

NOTA A
NOTA E

ES: sales de 3,3'-diclorobencidina

DA: salte af 3,3'-dichlorbenzidin

DE: Salze von 3,3'-Dichlorbenzidin

EL: άλατα της 3,3'-διχλωροβενζιδίνης

EN: salts of 3,3'-dichlorobenzidine; salts of 3,3'-dichlorobiphenyl-4,4'-ylenediamine

FR: sels de 3,3'-dichlorobenzidine

IT: 3,3'-diclorobenzidina sali

NL: zouten van 3,3'-dichloorbenzidine

PT: sais de 3,3'-diclorobenzidina

FI: 3,3'-diklooribentsidiinin suolat

SV: 3,3'-diklorbenzidin salter 3,3'-diklor[1,1'-bifenyl]-4,4'-diamin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 21 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-21-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | 531-85-1<br>531-86-2<br>21136-70-9<br>36341-27-2 |
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| EEC No | 208-519-6<br>208-520-1<br>244-236-4<br>252-984-8 |
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No 612-070-00-5

NOTA A
NOTA E

ES: sales de bencidina

DA: salte af benzidin

DE: Salze von Benzidin

EL: άλατα της βενζιδίνης

EN: salts of benzidine

FR: sels de benzidine

IT: benzidina sali

NL: zouten van benzidine

PT: sais de benzidina

FI: bentsidiinin suolat

SV: benzidin salter; [1,1'-bifenyl]-4,4'-diamin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 1; R 45 | Xn; R 22 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 553-00-4<br>612-52-2 | EEC No 209-030-0<br>210-313-6 | No 612-071-00-0 |
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NOTA A
NOTA E

ES: sales de 2-naftilamina

DA: salte af 2-nafthylamin

DE: Salze von 2-Naphthylamin

EL: άλατα της 2-ναφθυλαμίνης

EN: salts of 2-naphthylamine

FR: sels de 2-naphtylamine

IT: 2-naftilamina sali

NL: zouten van 2-naftylamine

PT: sais de 2-naftilamina

FI: 2-naftyyliamiinin suolat

SV: 2-naftylamin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 1; R 45 | Xn; R 22 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 103-83-3 | EEC No 203-149-1 | No 612-074-00-7 |
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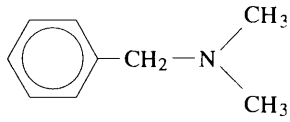

ES: bencildimetilamina

DA: benzyldimethylamin

DE: Benzyldimethylamin; N,N-Dimethylbenzylamin

EL: βενζυλοδιμεθυλαμίνη

EN: benzyldimethylamine

FR: benzyldiméthylamine

IT: benzildimetilamina; N,N-dimetilbenzilamina

NL: benzyldimethylamine

PT: benzildimetilamina

FI: bentsyylidimetyyliamiini

SV: benzyldimetylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| R 10 | Xn; R 20/21/22 | C; R 34 | R 52-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 10-20/21/22-34-52/53

**S:** (1/2-)26-36-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 62-75-9 | EEC No 200-549-8 | No 612-077-00-3 |
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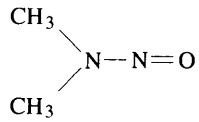
NOTA E



ES: dimetilnitrosoamina

DA: dimethylnitrosoamin

DE: Dimethylnitrosoamin

EL: διμεθυλονιτροδοαμίνη

EN: dimethylnitrosoamine

FR: diméthylnitrosoamine

IT: dimetilnitrosoamina; N-nitrosodimetilamina

NL: dimethylnitrosoamine

PT: dimetilnitrosoamina

FI: dimetyylinitrosamiini

SV: dimetylnitrosamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T+; R 26 | T; R 25-48/25 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 45-25-26-48/25-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 612-079-00-4 |
|---|---|---|

NOTA A
NOTA E

ES: sales de 2,2'-dicloro-4,4'-metilendianilina; sales de 4,4'-metilenbis(2-cloroanilina)

DA: salte af 2,2'-dichlor-4,4'-methylendianilin; salte af 4,4'-methylenbis(2-chloranilin)

DE: Salze von 2,2'-Dichlor-4,4'-methylendianilin; Salze von 4,4'-Methylen-bis(2-chloranilin)

EL: άλατα της 2,2'-διχλωρο-4,4'-μεθυλενοδιανιλίνης· άλατα της 4,4'-μεθυλενοδισ(2-χλωροανιλίνης)

EN: salts of 2,2'-dichloro-4,4'-methylenedianiline; salts of 4,4'-methylenebis(2-chloroaniline)

FR: sels de 2,2'-dichloro-4,4'-méthylènedianiline; sels de 4,4'-méthylènebis(2-chloraniline)

IT: 2,2'-dicloro-4,4'-metilendianilina sali; 4,4'-metilenbis(2-cloroanilina) sali

NL: zouten van 2,2'-dichloor-4,4'-methyleendianiline; zouten van 4,4'-methyleenbis(2-chlooraniline)

PT: sais de 2,2'-dicloro-4,4'-metilenodianilina; sais de 4,4'-metileno-bis(2-cloroanilina)

FI: 2,2'-dikloori-4,4'-metyleenidianiliniin suolat; 4,4'-metyleenibis(2-kloorianiliini):n suolat

SV: 2,2'-diklor-4,4'-metylendianilin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | 612-82-8<br>64969-36-4<br>74753-18-7 |
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| EEC No | 210-322-5<br>265-294-7<br>277-985-0 |
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No 612-081-00-5

NOTA A
NOTA E

ES: sales de 3,3'-dimetilbencidina; sales de o-tolidina

DA: salte af 3,3'-dimethylbenzidin; salte af o-tolidin

DE: Salze von 3,3'-Dimethyl-benzidin; Salze von o-Tolidin

EL: άλατα της 3,3'-διμετυλοβενζιδίνης· άλατα της ο-τολιδίνης

EN: salts of 3,3'-dimethylbenzidine; salts of *o*-tolidine

FR: sels de 3,3'-diméthylbenzidine; sels de o-tolidine

IT: 3,3'-dimetilbenzidina sali; o-tolidina sali

NL: zouten van 3,3'-dimethylbenzidine; zouten van o-tolidine

PT: sais de 3,3'-dimetilbenzidina; sais de o-tolidina

FI: 4,4'-bi-*o*-toluidiinin suolat

SV: 4,4'-bi-*o*-toluidin, salter; 3,3'-dimetylbenzidin, salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 838-88-0 | EEC No 212-658-8 | No 612-085-00-7 |
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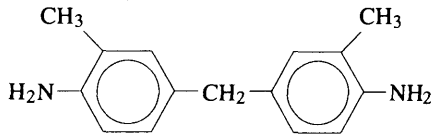
NOTA E




ES: 4,4'-metilendi-*o*-toluidina

DA: 4,4'-methylendi-*o*-toluidin

DE: 4,4'-Methylendi-*o*-toluidin

EL: 4,4'-μεθυλενοδι-*o*-τολουιδίνη

EN: 4,4'-methylenedi-*o*-toluidine

FR: 4,4'-méthylènedi-*o*-toluidine

IT: 4,4'-metilendi-*o*-toluidina

NL: 4,4'-methyleendi-*o*-toluïdine

PT: 4,4'-metilenodi-*o*-toluídina

FI: 4,4'-metyleenidi-*o*-toluídiini

SV: 4,4'-metylendi-*o*-toluidin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | R 43 | N; R 50-53 |
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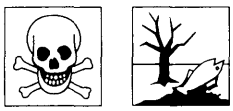
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N



**R:** 45-22-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 13516-27-3 | EEC No 236-855-3 | No 612-087-00-8 |
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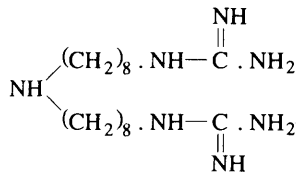

ES: guazatina

DA: guazatin

DE: Guazatin

EL: guazatine

EN: guazatine

FR: guazatine

IT: guazatina; 1,1'-iminobis(ottametilen)diguanidina

NL: guazatine

PT: guazatina

FI: guatsatiini

SV: guazatin; N,N'''-(iminodi-8,1-oktandiyl)bisguanidin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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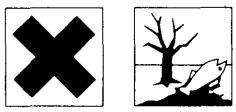
| Xn; R 21/22 | Xi; R 36/38 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 21/22-36/38-50/53

**S:** (2-)36/37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 2243-62-1 | EEC No 218-817-8 | No 612-089-00-9 |
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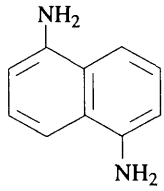

ES: 1,5-naftilenodiamina

DA: 1,5-naphthylendiamin

DE: 1,5-Naphthylendiamin

EL: 1,5-ναφθυλένιοδιαμίνη

EN: 1,5-naphthylenediamine

FR: 1,5-naphtylènediamine

IT: 1,5-naftilenediamina

NL: 1,5-naftyleendiamine

PT: 1,5-naftilenodiamina

FI: 1,5-naftyleenidiamiini

SV: 1,5-naftalendiamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 40-50/53

**S:** (2-)36/37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 95-53-4 | EEC No 202-429-0 | No 612-091-00-X |
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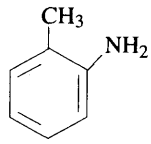
NOTA E




ES: *o*-toluidina

DA: *o*-toluidin

DE: *o*-Toluidin

EL: *o*-τολουιδίνη

EN: *o*-toluidine; 2-aminotoluene

FR: *o*-toluidine

IT: *o*-toluidina

NL: *o*-toluïdin

PT: *o*-toluídina

FI: *o*-toluidiini; 2-aminotolueeni

SV: *o*-toluidin; 2-metylbenzenamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T; R 23/25 | Xi; R 36 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-23/25-36-50

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 492-80-8 | EEC No 207-762-5 | No 612-096-00-7 |
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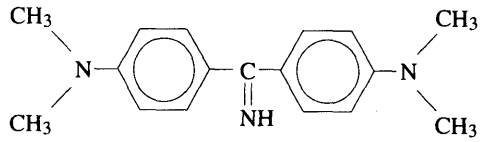

ES: 4,4'-carbonimidoilbis[*N,N*-dimetilanilina];

DA: 4,4'-carbonimidoylbis[*N,N*-dimethylanilin];

DE: 4,4'-Carbonimidoylbis[*N,N*-dimethylanilin]

EL: 4,4'-καρβονιμιδοϋλοδις[*N,N*-διμεθυλανιλίνη]

EN: 4,4'-carbonimidoylbis[*N,N*-dimethylaniline]

FR: 4,4'-carbonimidoylbis[*N,N*-diméthylaniline]; auramine

IT: 4,4'-carbonimidoilbis[*N,N*-dimetilanilina]; auramina

NL: 4,4'-carbonimidoylbis[*N,N*-dimethylaniline]

PT: 4,4'-carbonimidoílbis[*N,N*-dimetilanilina]

FI: 4,4'-karbonimidoyylibis[*N,N*-dimetyylianiliini]; auramiini

SV: 4,4'-karbonimidoylbis[*N,N*-dimetylanilin]; C.I. Solvent Yellow 34

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | Xn; R 22 | Xi; R 36 | N; R 51-53 |
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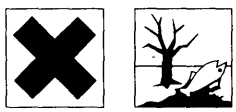
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 22-36-40-51/53

**S:** (2-)36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 612-097-00-2 |
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NOTA A

ES: sales de 4,4'-carbonimididoibis[*N,N*-dimetilanilina]

DA: salte af 4,4'-carbonimidoylbis[*N,N*-dimethylanilin]

DE: Salze von 4,4'-Carbonimidoylbis[*N,N*-dimethylanilin]

EL: άλατα της 4,4'-καρβονιμιδοϋλοδις[*N,N*-διμεθυλανιλίνη]

EN: salts of 4,4'-carbonimidoylbis[*N,N*-dimethylaniline]

FR: sels de 4,4'-carbonimidoylbis[*N,N*-diméthylaniline]; sels d'auramine

IT: sali di 4,4'-carbomidoibis[*N,N*-dimetilanilina]; auramina sali

NL: zouten van 4,4'-carbonimidoylbis[*N,N*-dimethylaniline]

PT: sais de 4,4'-carbonimidoylbis[*N,N*-dimetilanilina]

FI: 4,4'-karbonimidoyylibis[*N,N*-dimetyylianiliini] suolat

SV: 4,4'-karbonimidoylbis[*N,N*-dimetylanilin], salter

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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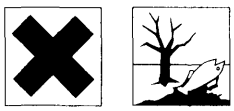
| Carc. Cat. 3; R 40 | Xn; R 22 | Xi; R 36 | N; R 51-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 22-36-40-51/53

**S:** (2-)36/37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 621-64-7 | EEC No 210-698-0 | No 612-098-00-8 |
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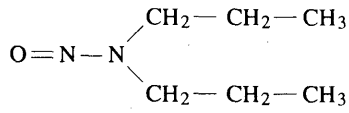
NOTA E



ES: nitrosodipropilamina

DA: nitrosodipropylamin

DE: Nitrosodipropylamin

EL: νιτροδοδιπροπυλαμίνη

EN: nitrosodipropylamine

FR: nitrosodipropylamine

IT: nitrosodipropilamina

NL: nitrosodipropylamine

PT: nitrosodipropilamina

FI: nitrosodipropyyliamiini

SV: nitrosodipropylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 22 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-22-51/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 95-80-7 | EEC No 202-453-1 | No 612-099-00-3 |
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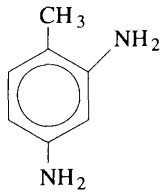
NOTA E




ES: 4-metil-*m*-fenilendiamina

DA: 4-methyl-*m*-phenylendiamin

DE: 4-Methyl-*m*-phenylendiamin; Toluylen-2,4-diamin

EL: 4-μεθυλο-μ-φαινολενοδιαμίνη

EN: 4-methyl-*m*-phenlyenediamine

FR: 4-méthyl-*m*-phénylènediamine; toluène-2,4-diamine

IT: 4-metil-*m*-fenilendiamina

NL: 4-methyl-*m*-fenyleendiamine

PT: 4-metil-*m*-fenilenodiamina

FI: 4-metyyli-*m*-fenyleenidiamiini

SV: 4-metyl-*m*-fenylendiamin; 4-metyl-1,3-benzendiamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T; R 25 | Xn; R 21 | Xi; R 36 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-21-25-36-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 100-97-0 | EEC No 202-905-8 | No 612-101-00-2 |
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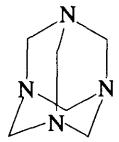

ES: metenamina

DA: methenamin

DE: Methenamin; Hexamethylentetramin

EL: μεθεναμίνη

EN: methenamine; hexamethylenetetramine

FR: méthenamine; hexaméthylènetétramine

IT: metenamina; esametilentetramina

NL: methenamine

PT: metenamina

FI: meteeniamiini; heksametyleenitetramiini

SV: metenamin; hexametylentetramin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F; R 11 | R 42/43 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F Xn

**R:** 11-42/43

**S:** (2-)16-22-24-37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 140-31-4 | EEC No 205-411-0 | No 612-105-00-4 |
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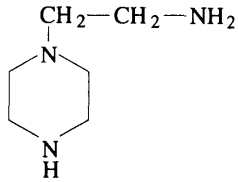

ES: 2-piperazin-1-iletilamina

DA: 2-piperazin-1-ylethylamin

DE: 2-Piperazin-1-ylethylamin

EL: 2-(πιπεραζιν-1-υλ)αιθυλαμίνη

EN: 2-piperazin-1-ylethylamine

FR: 2-pipérazine-1-yléthylamine

IT: 2-piperazin-1-iletilamina

NL: 2-piperazine-1-ylethylamine

PT: 2-(1-piperazinil)etilamina

FI: 2-piperatsiini-1-yylietyyliamiini

SV: 2-piperazin-1-yletylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| Xn; R 21/22 | C; R 34 | R 43 | R 52-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 21/22-34-43-52/53

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 98-84-0 [1]<br>618-36-0 [2] | EEC No 202-706-6 [1]<br>210-545-8 [2] | No 612-107-00-5 |
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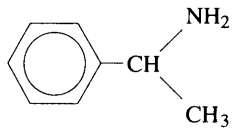

ES: 1-feniletilamina [1]; DL-α-metilbencilamina [2]

DA: 1-phenylethylamin [1]; DL-α-methylbenzylamin [2]

DE: 1-Phenylethylamin [1]; DL-α-Methylbenzylamin [2]

EL: 1-φαινολαιθυλαμίνηα-μεθυλοβενζυλαμίνη [1]· DL-α-μεθυλοβενζυλαμίνη [2]

EN: 1-phenylethylamine [1]; DL-α-methylbenzylamine [2]

FR: 1-phényléthylamine [1]; DL-α-méthylbenzylamine [2]

IT: 1-feniletilamina [1]; DL-α-metilbenzilamina [2]

NL: 1-fenylethylamine [1]; DL-α-methylbenzylamine [2]

PT: 1-feniletilamina [1]; DL-α-metilbenzilamina [2]

FI: 1-fenyylietyyliamiini [1]; DL-α-metyylibentsyyliamiini [2]

SV: 1-fenyletylamin [1]; DL-α-metylbenzylamin [2]

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C

**R:** 21/22-34

**S:** (1/2-)26-28-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 6864-37-5 | EEC No 229-962-1 | No 612-110-00-1 |
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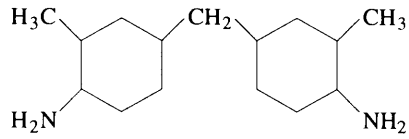


ES: 2,2'-dimetil-4,4'-metilenbis(ciclonexilamina)

DA: 2,2'-dimethyl-4,4'-methylenbis(cyclohexylamin)

DE: 2,2'-Dimethyl-4,4'-methylenbis(cyclohexylamin)

EL: 2,2'-διμεθυλο-4,4'-μεθυλενοδις(κυκλοεξυλαμίνη)

EN: 2,2'-dimethyl-4,4'-methylenebis(cyclohexylamine)

FR: 2,2'-diméthyl-4,4'-méthylènebis(cyclohexylamine)

IT: 2,2'-dimetil-4,4'-metilenbis(cicloesilamina)

NL: 2,2'-dimethyl-4,4'-methyleenbis(cyclohexylamine)

PT: 2,2'-dimetil-4,4'-metilenobis(ciclohexilamina)

FI: 2,2'-dimetyyli-4,4'-metyleenibis(sykloheksyyliamiini)

SV: 2,2'-dimetyl-4,4'-metylenbis(cyklohexylamin)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/24 | Xn; R 22 | C; R 35 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T C N

**R:** 22-23/24-35-51/53

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 823-40-5 | EEC No 212-513-9 | No 612-111-00-7 |
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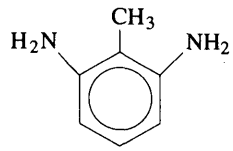


ES: 2-metil-*m*-fenilenodiamina

DA: 2-methyl-*m*-phenylendiamin

DE: 2-Methyl-*m*-phenylendiamin; Toluylen-2,6-diamin

EL: 2-:μεθυλο-*μ*-φαινυλενοδιαμίνη

EN: 2-methyl-*m*-phenylenediamine

FR: 2-méthyl-*m*-phénylènediamine; toluène-2,6-diamine

IT: 2-metil-*m*-fenilendiamina; toluene-2,6-diamina

NL: 2-methyl-*m*-fenyleendiamine

PT: 2-metil-*m*-fenilenodiamina

FI: 2-metyyli-*m*-fenyleenidiamiini

SV: 2-metyl-*m*-fenylendiamin; 2-metyl-1,3-benzendiamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Muta. Cat. 3; R 40 | Xn; R 21/22 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 21/22-40-43-50/53

**S:** (2-)24-36/37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 104-94-9 | EEC No 203-254-2 | No 612-112-00-2 |
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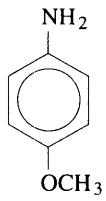


ES: *p*-anisidina

DA: *p*-anisidin

DE: *p*-Anisidin; 4-Methoxyanilin

EL: π-ανισιδίνη

EN: *p*-anisidine; 4-methoxyaniline

FR: *p*-anisidine

IT: *p*-anisidina; 4-metossianilina

NL: *p*-anisidine

PT: *p*-anisidina

FI: *p*-anisidiini; 4-metoksianiliini

SV: *p*-anisidin; 4-metoxianilin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T+; R 26/27/28 | R 33 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 26/27/28-33-50

**S:** (1/2-)28-36/37-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 28434-00-6 | EEC No 249-013-5 | No 613-055-00-6 |
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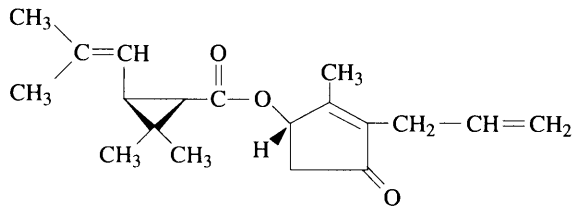

ES: [1 *R*-[1α(S*),3β]]-2,2-dimetil-3-(2-metilprop-1-enil)ciclopropanocarboxilato de 3-alil-2-metil-4-oxociclopent-2-en-1-ilo; S-bioaletrina

DA: 3-allyl-2-methyl-4-oxocyclopent-2-en-1-yl-[1 *R*-[1α(S*),3β]]-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropancarboxylat; S-bioallethrin

DE: 3-Allyl-2-methyl-4-oxocyclopent-2-en-1-yl-[1 *R*-[1α(S*),3β]]-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropancarboxylat; S-Bioallethrin

EL: [1 *R*-[1α(S*),3β]]-2,2-διμεθυλο-3-(2-μεθυλοπροπ-1-ενυλο)κυκλοπροπανοκαρβοξυλικό 3-αλλυλο-2-μεθυλ-4-οξοκυκλοπεντ-2-εν-1-ύλιο· S-bioallethrin

EN: 3-allyl-2-methyl-4-oxocyclopent-2-en-1-yl-[1 *R*-[1α(S*),3β]]-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropanocarboxylate; S-bioallethrin

FR: [1 *R*-[1α(S*),3β]]-2,2-diméthyl-3-(2-méthylprop-1-enyl)cyclopropanecarboxylate de 3-allyl-2-méthyl-4-oxocyclopent-2-ène-1-yle; esdépalléthrine

IT: [1 *R*-[1α(S*),3β]]-2,2-dimetil-3-(2-metilprop-1-enil)ciclopropanocarbossilato di 3-allil-2-metil-4-ossociclopent-2-en-1-ile; S-bioalletrina

NL: 3-allyl-2-methyl-4-oxocyclopent-2-een-1-yl-[1 *R*-[1α(S*),3β]]-2,2-dimethyl-3-(2-methylprop-1-enyl)cyclopropaancarboxylaat; S-bioalletrine

PT: [1 *R*-[1α(S*),3β]]-2,2-dimetil-3-(2-metilprop-1-enil)ciclopropanocarboxilato de 3-alil-2-metil-4-oxociclopent-2-eno-1-ilo; S-bioaletrina

FI: 3-allyyli-2-metyyli-4-oksysklopent-2-en-1-yyli-[1 *R*-[1α(S*),3β]]-2,2-dimetyyli-3-(2-metyyliprop-1-enyyli)syklopropaanikarboksylaatti; S-bioalletriini

SV: 3-allyl-2-metyl-4-oxocyklopent-2-en-1-yl[1 *R*-[1α(S*),3β]]-2,2-dimetyl-3-(2-metylprop-1-enyl)cyklopropankarboxylat; S-bioalletrin

| Cas No 28434-00-6 | EEC No 249-013-5 | No 613-055-00-6 |
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*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 21/22-50/53

**S:** (2-)60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 90989-39-2 | EEC No 292-695-4 | No 649-403-00-9 |
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NOTA H
NOTA P

ES: hidrocarburos aromáticos, $C_{8-10}$; Nafta de baja temperatura de inflamación, sin especificar

DA: aromatiske carbonhydrider, $C_{8-10}$; Lavtkogende uspecificeret nafta

DE: Aromatische Kohlenwasserstoffe, $C_{8-10}$; Naptha, niedrig siedend, nicht spezifiziert

EL: αρωματικοί υδρογονάνθρακες, $C_{8-10}$· Ελαφρά νάφθα - νη προδιαγεγραμμένη

EN: Aromatic hydrocarbons, $C_{8-10}$; Low boiling point naphtha — unspecified

FR: hydrocarbures aromatiques en $C_{8-10}$; Naphta à point d'ébullition bas — non spécifié

IT: idrocarburi aromatici $C_{8-10}$; Nafta con basso punto di ebollizione — non specificata

NL: aromatische koolwaterstoffen, $C_{8-10}$; Nafta met laag kookpunt — niet gespecifieerd

PT: hidrocarbonetos aromáticos, $C_{8-10}$; Nafta de baixo ponto de ebulição — não especificada

FI: aromaattiset hiilivedyt, $C_{8-10}$; matalan kiehumispisteen teollisuusbensiini (nafta)-määrittelemälön

SV: aromatiska kolväten, $C_{8-10}$; ospecificerad nafta med låg kokpunkt

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Xn; R 65 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-65

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 4

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| C ≥ 10 % | T; R 45-65 |
| 0,1 % ≤ C < 10 % | T; R 45 |
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*ANEXO II — BILAG II — ANHANG II — ΠΑΡΑΡΤΗΜΑ II — ANNEX II — ANNEXE II — ALLEGATO II — BIJLAGE II — ANEXO II — LIITE II — BILAGA II*

| Cas No 7789-12-0 | EEC No 234-190-3 | No 024-004-01-4 |
|---|---|---|

NOTA E

$Na_2Cr_2O_7 \cdot 2H_2O$

ES: dicromato de sodio, dihidrato

DA: natriumdichromat, dihydrat

DE: Natriumdichromat, dihydrat

EL: διξρωμικό νάτριο, διέννδρο

EN: sodium dichromate, dihydrate

FR: dichromate de sodium, dihydrate

IT: dicromato di sodio, diidrato

NL: natriumdichromaat, dihydraat

PT: dicromato de sódio, dihidrato

FI: natriumdikromaatti, dihydraatti

SV: natriumdikromat, dihydrat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 49 | Muta. Cat. 2; R 46 | T+; R 26 | T; R 25 | Xn; R 21 |
|---|---|---|---|---|
| Xi; R 37/38-41 | R 43 | N; R 50-53 | | |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 49-46-21-25-26-37/38-41-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

NOTA 3

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| C ≥ 7 % | T+; R 49-46-21-25-26-37/38-41-43 |
| 0,5 % ≤ C < 7 % | T; R 49-46-43 |
| 0,1 % ≤ C < 0,5 % | T; R 49-46 |
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| Cas No — | EEC No — | No 024-017-00-8 |
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NOTA A
NOTA E

ES: Compuestos de cromo(VI), excepto el cromato de bario y de los especialmente citados en este anexo

DA: Krom(VI)forbindelser, med undtagelse af bariumkromat samt sådanne nævnt andetsteds i dette bilag

DE: Chrom(VI)verbindungen, mit Ausnahme von Bariumchromat und Verbindungen die in diesem Anhang gesondert aufgeführt sind

EL: ενώσεις χρωμίου (VI), εκτός του χρωμικού βαρίου και των ενώσεων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: Chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex

FR: Composés de chrome(VI), à l'exception du chromate de baryum et de ceux nommément désignés dans cette annexe

IT: Composti di cromo(VI), esclusi bario cromato e quelli espressamente indicati in questo allegato

NL: Chroom(VI)verbindingen, met uitzondering van bariumchromaat alsmede van in deze bijlage met name genoemde zouten

PT: Compostos de crómio(VI), com excepção do cromato de bário e dos expressamente referidos no presente anexo

FI: kromi(VI)-yhdisteet paitsi bariumkromaatti sekä muualla tässä liitteessä mainitut yhdisteet

SV: krom(VI)föreningar med undantag för bariumkromat och föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 49 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 49-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 7784-42-1 | EEC No 232-066-3 | No 033-006-00-7 |
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$AsH_3$

ES: arsina

DA: arsin

DE: Arsin; Arsenwasserstoff

EL: αρσίνη

EN: arsine

FR: arsine

IT: arsina

NL: arsine

PT: arsina

FI: arsiini

SV: arsin; arsenikväte

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|
| F+; R 12 | T+; R 26 | Xn; R 48/20 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ T+ N

**R:** 12-26-48/20-50/53

**S:** (1/2-)9-16-28-33-36/37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 10361-39-4 | EEC No 233-788-1 | No 056-004-00-8 |
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$BaCl_2$

ES: cloruro de bario

DA: bariumchlorid; bariumdichlorid

DE: Bariumchlorid

EL: χλωριούχο βάριο

EN: barium chloride

FR: chlorure de baryum

IT: cloruro di bario; bario cloruro

NL: bariumchloride

PT: cloreto de bário

FI: bariumkloridi

SV: bariumklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 25 | Xn; R 20 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 20-25

**S:** (1/2-)45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 77-47-4 | EEC No 201-029-3 | No 602-078-00-7 |
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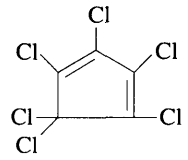


ES: hexaclorociclopentadieno

DA: hexachlorcyclopentadien

DE: Hexachlorcyclopentadien

EL: εξαχλωροκυκλοπενταδιένιο

EN: hexachlorocyclopentadiene

FR: hexachlorocyclopentadiène

IT: esaclorociclopentadiene

NL: hexachloorcyclopentadieen

PT: hexaclorociclopentadieno

FI: heksakloorisyklopentadieeni

SV: hexaklorcyklopentadien

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| T+; R 26 | T; R 24 | Xn; R 22 | C; R 34 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T+ N

**R:** 22-24-26-34-50/53

**S:** (1/2-)25-39-45-53-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 94-59-7 | EEC No 202-345-4 | No 605-020-00-9 |
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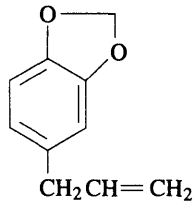
NOTA E



ES: 5-alil-1,3-benzodioxol

DA: 5-allyl-1,3-benzodioxol

DE: 5-Allyl-1,3-benzodioxol; Safrol

EL: 5-αλλυλο-1,3-βενζοδιοξόλη

EN: 5-allyl-1,3-benzodioxole; safrole

FR: 5-allyl-1,3-benzodioxole; safrole

IT: 5-allil-1,3-benzodiossolo; safrolo

NL: 5-allyl-1,3-benzodioxool; safrool

PT: 5-alil-1,3-benzodioxole

FI: 5-allyyli-1,3-bentsodioksoli; safroli

SV: 5-allyl-1,3-benzodioxol; 5-(2-propenyl)-1,3-benzodioxol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Muta. Cat. 3; R 40 | Xn; R 22 |
|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-22-40

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 91673-30-2 | EEC No 294-145-9 | No 605-021-00-4 |
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ES: formaldehído, productos de reacción con butilfenol

DA: formaldehyd, reaktionsprodukter med butylphenol

DE: Formaldehyd, Reaktionsprodukte mit Butylphenol

EL: φορμαλδεΰδης, προϊόντα αντίδρασης με βουτυλοφαινόλη

EN: Formaldehyde, reaction products with butylphenol

FR: formaldéhyde, produits de réaction avec le butylphénol

IT: formaldeide, prodotti di reazione con butilfenolo

NL: formaldehyd, reactieprodukten met butylfenol

PT: formaldeído, produtos da reacção com butilfenol

FI: formaldehydi, reaktiotuotteet butyylifenolin kanssa

SV: formaldehyd, reaktionsprodukt med butylfenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 43

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi

**R:** 43

**S:** (2-)24-37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 111-30-8 | EEC No 203-856-5 | No 605-022-00-X |
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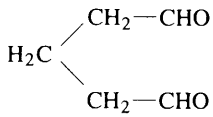

ES: glutaral

DA: glutaral; glutaraldehyd

DE: Glutaral; Glutaraldehyd

EL: γλουταραλδεΰδη;

EN: glutaral; glutaraldehyde; 1,5-pentanedial

FR: glutaral

IT: glutarale; gluraraldeide; 1,5-pentandiale

NL: glutaaraldehyd

PT: glutaral

FI: glutaraldehydi

SV: glutaraldehyd; pentandial

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| T; R 23/25 | C; R 34 | R 42/43 | N; R 50 |
|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 23/25-34-42/43-50

**S:** (1/2-)26-36/37/39-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 50 % | T; R 23/25-34-42/43 |
| 25 % ≤ C < 50 % | T; R 22-23-34-42/43 |
| 10 % ≤ C < 25 % | C; R 20/22-34-42/43 |
| 2 % ≤ C < 10 % | Xn; R 20/22-37/38-41-42/43 |
| 1 % ≤ C < 2 % | Xn; R 36/37/38-42/43 |
| 0,5 % ≤ C < 1 % | Xi; R 36/37/38-43 |

| Cas No 19666-30-9 | EEC No 243-215-7 | No 606-045-00-8 |
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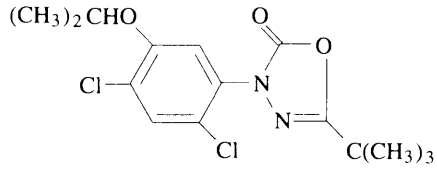

ES: 5-(1,1-dimetiletil)-3-[2,4-dicloro-5-(1-metiletoxi)fenil]-5-1,3,4-oxadiazol-2(3*H*)-ona

DA: 3-[2,4-dichlor-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxdiazol-2(3*H*)-on

DE: 3-[2,4-Dichlor-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3*H*)-on; Oxadiazon

EL: 3-[2,4-διχλωρο-5-(1-μεθυλαιθοξυ)φαινυλο]-5-(1,1-διμεθυλαιθλ)-1,3,4-οξαδιαζολ-2(3*H*)-όνη

EN: 3-[2,4-dichloro-5-(1-methylethoxy)phenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazol-2(3*H*)-one; oxadiazon

FR: 3-[2,4-dichloro-5-(1-méthylethoxy)phényl]-5-(1,1-diméthyléthyl)-1,3,4-oxadiazole-2(3*H*)-one; oxadiazon

IT: 5-(1,1-dimetiletil)-3-[2,4-dicloro-5-(1-metiletossi)fenil]-5-1,3,4-ossadiazol-2(3*H*)-one

NL: 3-[2,4-dichloor-5-(1-methylethoxy)fenyl]-5-(1,1-dimethylethyl)-1,3,4-oxadiazool-2(3*H*)-on

PT: 5-(1,1-dimetiletil)-3-[2,4-dicloro-5-(1-metiletoxi)fenil]-5-1,3,4-oxadiazole-2(3*H*)-ona

FI: 3-[2,4-dikloori-5-(1-metyylietoksi)fenyyli]-5-(1,1-dimetyylietyyli)-1,3,4-oksadiatsoli-2(3*H*)-oni; oksadiatsoni

SV: 3-[2,4-dikloro-5-(1-metyletoxi)fenyl]-5-(1,1-dimetyletyl)-1,3,4-oxadiazol-2(3*H*)-on; oxadiazon (ISO)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

N; R 50-53

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

N

**R:** 50/53

**S:** 60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 117-82-8 | EEC No 204-212-6 | No 607-228-00-5 |
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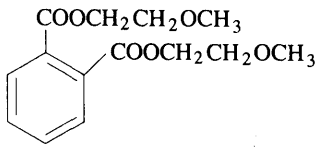

ES: ftalato de bis(2-metoxietilo)

DA: bis(2-methoxyethyl)phthalat

DE: Bis(2-methoxyethyl)phthalat

EL: φθαλικό δις(2-μεθοξυαίθυλο)

EN: bis(2-methoxyethyl) phthalate

FR: phtalate de bis(2-méthoxyéthyle)

IT: ftalato di bis(2-metossietile)

NL: bis(2-methoxyethyl)ftalaat

PT: ftalato de bis(2-metoxietilo)

FI: bis(2-metoksietyyli)ftalaatti

SV: di(2-metoxietyl)ftalat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Repr. Cat. 2; R 61 | Repr. Cat. 3; R 62 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 61-62

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 88-10-8 | EEC No 201-798-5 | No 607-229-00-0 |
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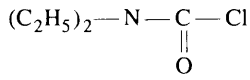

ES: cloruro de dietilcarbomoilo

DA: diethylcarbamoylchlorid

DE: Diethylcarbamoylchlorid

EL: χλωρίδιο του διαιθυλοκαρβαμοΰλου

EN: diethylcarbamoyl chloride

FR: chlorure de diéthylcarbamoyle

IT: cloruro di dietilcarbamoile

NL: diethylcarbamoylchloride

PT: cloreto de dietilcarbamoilo

FI: dietyylikarbamyylikloridi

SV: dietylkarbamoylklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 3; R 40 | Xn; R 20/22 | Xi; R 36/37/38 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 20/22-36/37/38-40

**S:** (2-)26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 149-57-5 | EEC No 205-743-6 | No 607-230-00-6 |
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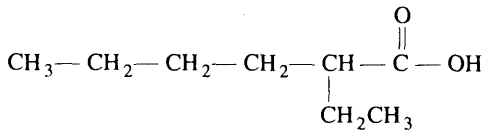

ES: ácido 2-etilhexanoico

DA: 2-ethylhexansyre

DE: 2-Ethylhexansäure

EL: 2-αιθυλεξανοϊκό οξύ

EN: 2-ethylhexanoic acid

FR: acide 2-éthylhexanoique

IT: acido 2-etilesanoico

NL: 2-ethylhexaanzuur

PT: ácido 2-etilhexanóico

FI: 2-etyyliheksaanihappo

SV: 2-etylhexansyra

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

Repr. Cat. 3; R 63

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 63

**S:** (2-)36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 1702-17-6 | EEC No 216-935-4 | No 607-231-00-1 |
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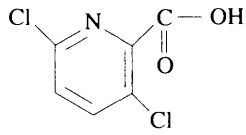

ES: ácido 3,6-dicloropiridina-2-carboxilico

DA: 3,6-dichlorpyridin-2-carboxylsyre

DE: 3,6-Dichlorpyridin-2-carbonsäure

EL: 3,6-διχλωροπυριδινο-2-καρβοξυλικό οξύ

EN: 3,6-dichloropyridine-2-carboxylic acid; clopyralid

FR: acide 3,6-dichloropyridine-2-carboxylique; clopyralid

IT: acido 3,6-dicloropiridin-2-carbossilico; clopiralid

NL: 3,6-dichloorpyridine-2-carbonzuur

PT: ácido 3,6-dicloropiridina-2-carboxilico

FI: 3,6-diklooripyridiini-2-karboksyylikhappo; klopyralidi

SV: 3,6-diklorpyridin-2-karboxylsyra; klopyralid (ISO)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 41 | N; R 51-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi N

**R:** 41-51/53

**S:** (2-)26-39-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 127-68-4 | EEC No 204-857-3 | No 609-048-00-2 |
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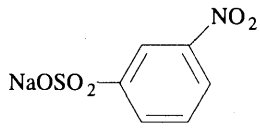


ES: 3-nitrobencenosulfonato de sodio

DA: natrium-3-nitrobenzensulfonat

DE: Natrium-3-nitrobenzolsulfonat

EL: 3-νιτροβενζολοσουλφονικό νάτριο

EN: sodium 3-nitrobenzenesulphonate

FR: 3-nitrobenzènesulfonate de sodium

IT: 3-nitrobenzensolfonato di sodio

NL: natrium-3-nitrobenzeensulfonaat

PT: 3-nitrobenzenossulfonato de sódio

FI: natrium-3-nitrobentseenisulfonaatti

SV: natrium-3-nitrobenzensulfonat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36 | R 43 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi

**R:** 36-43

**S:** (2-)24-26-37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 121-87-9 | EEC No 204-502-2 | No 610-009-00-7 |
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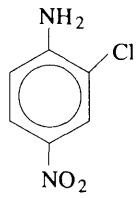


ES: 2-cloro-4-nitroanilina

DA: 2-chlor-4-nitroanilin

DE: 2-Chlor-4-nitroanilin

EL: 2-χλωρο-4-νιτροανιλίνη

EN: 2-chloro-4-nitroaniline

FR: 2-chloro-4-nitroaniline

IT: 2-cloro-4-nitroanilina

NL: 2-chloor-4-nitroaniline

PT: 2-cloro-4-nitroanilina

FI: 2-kloori-4-nitroaniliini

SV: 2-klor-4-nitroanilin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | N; R 51-53 |
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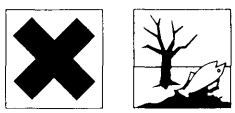
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 22-51/53

**S:** (2-)22-24-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 611-024-00-1 |
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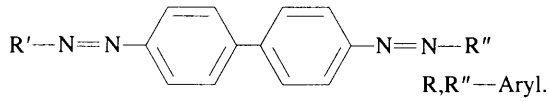
NOTA A




ES: Colorantes azoicos derivados de la bencidina; colorantes 4,4-diarilazobifenilos, excepto aquellos específicamente expresados en este Anexo

DA: Benzidinbaserede azofarvestoffer; 4,4'-diarylazobiphenyl farvestoffer, undtagen sådanne nævnt andetsteds i dette bilag

DE: Azofarbstoffe auf Benzidinbasis; 4,4'-Diarylazobiphenyl-Farbstoffe, mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: αζωτούχες χρωστικές με βάση βενζιδίνη, 4,4'-διαρυλαζωδιφαινυλο-χρωστικές εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: Benzidine based azo dyes; 4,4'-diarylazobiphenyl dyes, with the exception of those specified elsewhere in this Annex

FR: Colorants azoïques dérivant de la benzidine; colorants de 4,4'-diarylazobiphényle à l'exception de ceux nommément désignés dans cette annexe

IT: Azocoloranti della benzidina; coloranti del 4,4'-diarilazobifenile, esclusi quelli espressamente indicati in questo allegato

NL: Azo kleurstoffen op basis van benzidine; 4,4-diarylazobifenylkleurstoffen, met uitzondering van de in deze bijlage met name genoemde

PT: Corantes azoicos derivados da benzidina; corantes 4,4'-diarilazobifenil, com excepção dos expressamente referidos no presente anexo

FI: bentsidiinipohjaiset atsoväriaineet, 4,4'-diaryyliatsobifenyyli väriaineet, paitsi muualla tässä liitteessä mainitut

SV: benzidinbaserade azofärger, 4,4'-diarylazobifenylfärger med undantag för föreningar som är upptagna på annat ställe i bilagan

| Cas No — | EEC No — | No 611-024-00-1 |
|---|---|---|

NOTA A

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

Carc. Cat. 2; R 45

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 1937-37-7 | EEC No 217-710-3 | No 611-025-00-7 |
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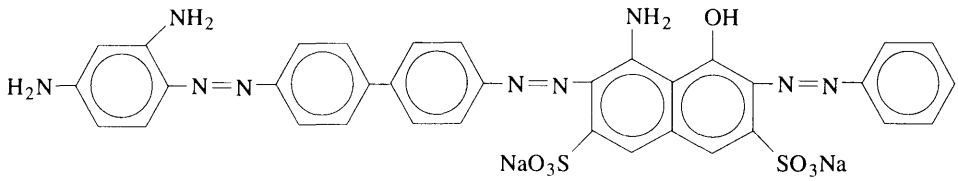


ES: 4-amino-3-[[4'-[(2,4-diaminofenil)azo][1,1'-bifenil]-4-il]azo]-6-(fenilazo)-5-hidroxinaftaleno-2,7-disulfonato de disodio

DA: dinatrium-4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalen-2,7-disulfonat

DE: Dinatrium-4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalin-2,7-disulfonat; C.I. Direct Black 38

EL: 4-αμινο-3[[4'-[(2,4-διαμινοφαινυλ)αζω][1,1'-διφαινυλ]-4-υλ]αζω]-5-υδροξυ-6-(φαινυλαζω)ναφθαλενο-2,7-δισουλφονικό δινάτριο

EN: disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphtalene-2,7-disulphonate; C.I. Direct Black 38

FR: 4-amino-3-[[4'-[(2,4-diaminophényl)azo][1,1'-biphényl]-4-yl]azo]-5-hydroxy-6-(phénylazo)naphtalène-2,7-disulfonate de disodium; C.I. Direct Black 38

IT: 4-amino-3-[[4'-[(2,4-diaminofenil)azo][1,1'-bifenil]-4-il]azo]-6-(fenilazo)-5-idrossinaftalen-2,7-disolfonato di disodio; C.I. Direct Black 38

NL: dinatrium-4-amino-3-[[4'-[(2,4-diaminofenyl)azo][1,1'-bifenyl]-4-yl]azo]-6-(fenylazo)-5-hydroxynaftaleen-2,7-disulfonaat

PT: 4-amino-3-[[4'-[(2,4-diaminofenil)azo][1,1'-bifenil]-4-il]azo]-6-(fenilazo)-5-hidroxinaftaleno-2,7-dissulfonato de dissódio

FI: dinatrium-4-amino-3-[[4'-[(2,4-diaminofenyyli)atso][1,1'-bifenyyli]-4-yyli]atso]-5-hydroksi-6-(fenyyliatso)naftaleeni-2,7-disulfonaatti; C.I. Direct Black 38

SV: dinatrium-4-amino-3-[[4'-(2,4-diaminofenyl)azo][1,1'-bifenyl]-4-yl]azo]-5-hydroxy-6-(fenylazo)naftalen-2,7-disulfonat; C.I. Direct Black 38

| Cas No 1937-37-7 | EEC No 217-710-3 | No 611-025-00-7 |
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*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Repr. Cat. 3; R 63 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-63

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 2602-46-2 | EEC No 220-012-1 | No 611-026-00-2 |
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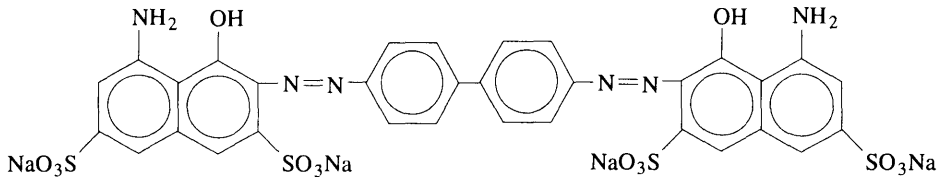

ES: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis[5-amino-4-hidroxinaftaleno-2,7-disulfonato] de tetrasodio

DA: tetranatrium-3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalen-2,7-disulfonat]

DE: Tetranatrium-3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalin-2,7-disulfonat]; C.I. Direct Blue 6

EL: 3,3'-[[1,1'-διφαινυλο]-4,4'-διυλοδις(αζω)]δις[5-αμινο-4-υδροξυναφθαλενο-2,7-δισουλφονικό] τετρανάτριο

EN: tetrasodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate]; C.I. Direct Blue 6

FR: 3,3'-[[1,1'-biphényl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaphtalène-2,7-disulfonate] de tétrasodium; C.I. Direct Blue 6

IT: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis[5-amino-4-idrossinaftalen-2,7-disolfonato] di tetrasodio; C.I. Direct Blue 6

NL: tetranatrium-3,3'-[[1,1'-bifenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaftaleen-2,7-disulfonaat]

PT: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis[5-amino-4-hidroxinaftaleno-2,7-dissulfonato] de tetrassódio

FI: tetranatrium-3,3'-[[1,1'-bifenyyli]-4,4'-diyylibis(atso)]bis[5-amino-4-hydroksinaftaleeni-2,7-disulfonaatti]; C.I. Direct Blue 6

SV: tetranatrium-3,3'-[[1,1'-bifenyl]-4,4'-diylbis(azo)]bis[5-amino-4-hydroxynaftalen-2,7-disulfonat]; C.I. Direct Blue 6

| Cas No 2602-46-2 | EEC No 220-012-1 | No 611-026-00-2 |
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*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Repr. Cat. 3; R 63 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-63

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 573-58-0 | EEC No 209-358-4 | No 611-027-00-8 |
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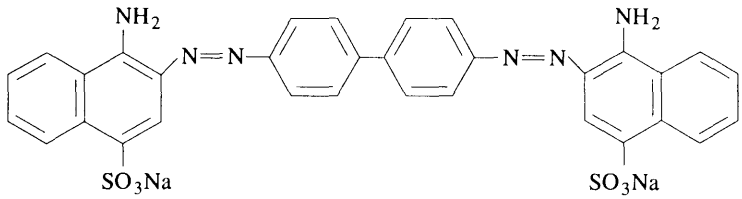

ES: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis(4-aminonaftaleno-1-sulfonato) de disodio

DA: dinatrium-3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalen-1-sulfonat)

DE: Dinatrium-3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalin-1-sulfonat); C.I. Direct Red 28

EL: 3,3'-[[1,1'-διφαινυλο]-4,4'-διυλοδις(αζω)]δις(4-αμινοναφθαλενο-1-σουλφονικό) δινάτριο

EN: disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate); C.I. Direct Red 28

FR: 3,3'-[[1,1'-biphényl]-4,4'-diylbis(azo)]bis(4-aminonaphtalène-1-sulfonate) de disodium; C.I. Direct Red 28

IT: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis(4-aminonaftalen-1-solfonato) di disodio; C.I. Direct Red 28

NL: dinatrium-3,3'-[[1,1'-bifenyl]-4,4'-diylbis(azo)]bis(4-aminonaftaleen-1-sulfonaat)

PT: 3,3'-[[1,1'-bifenil]-4,4'-diilbis(azo)]bis(4-aminonaftaleno-1-sulfonato) de dissódio

FI: dinatrium-3,3'-[[1,1'-bifenyyli]-4,4'-diyylibis(atso)]bis(4-aminonaftaleeni-1-sulfonaatti); C.I. Direct Red 28

SV: dinatrium-3,3'-[[1,1'-bifenyl]-4,4'-diylbis(azo)]bis(4-aminonaftalen-1-sulfonat); C.I. Direct Red 28

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | Repr. Cat. 3; R 63 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 45-63

**S:** 53-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | 74-89-5 [1]<br>124-40-3 [2]<br>75-50-3 [3] |
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| EEC No | 200-820-0 [1]<br>204-697-4 [2]<br>200-875-0 [3] |
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| No 612-001-01-6 |
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NOTA B

$CH_3NH_2$ .... % [1]
$(CH_3)_2NH$ .... % [2]
$(CH_3)_3N$ .... % [3]

ES: metilamina (mono-[1], di-[2] y tri-[3]) .... %

DA: methylamin (mono-[1], di-[2] og tri-[3]) .... %

DE: Methylamin (mono-[1], di-[2] und tri-[3]) .... %

EL: μεθυλαμίνη (μονο-[1], δι-[2] και τρι-[3]) ....%

EN: methylamine (mono-[1], di-[2] and tri-[3]) .... %

FR: méthylamine (mono-[1], di-[2] et tri-[3]) .... %

IT: metilamina (mono-[1], di-[2] e tri-[3]) .... %

NL: methylamine (mono-[1], di-[2] en tri-[3]) .... %

PT: metilamina (mono-[1], di-[2] e tri-[3]) .... %

FI: metyyliamiini (mono-[1], di-[2] ja tri-[3]) .... %

SV: metylamin (mono-[1], di-[2] och tri-[3]) .... %

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| F+; R 12 | Xn; R 20/22 | C; R 34 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F+ C

**R:** 12-20/22-34

**S:** (1/2-)3-16-26-29-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 15 % | C; R 20/22-34 |
| 10 % ≤ C < 15 % | C; R 34 |
| 5 % ≤ C < 10 % | Xi; R 36/37/38 |
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| Cas No 74070-46-5 | EEC No 277-704-1 | No 612-120-00-6 |
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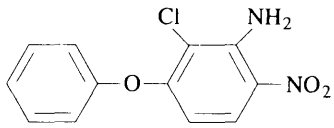


ES: 2-cloro-3-fenoxi-6-nitro-anilina

DA: 2-chlor-6-nitro-3-phenoxyanilin

DE: 2-Chlor-6-nitro-3-phenoxyanilin

EL: 2-χλωρο-6-νιτρο-3-φαινοξυανιλίνη

EN: 2-chloro-6-nitro-3-phenoxyaniline

FR: 2-chloro-6-nitro-3-phénoxyaniline; aclonifène (ISO)

IT: 2-cloro-3-fenossi-6-nitro-anilina

NL: 2-chloor-3-fenoxy-6-nitro-aniline

PT: 2-cloro-3-fenoxi-6-nitro-anilina

FI: 2-kloori-6-nitro-fenoksianiliini; aklonifeeni

SV: 2-klor-6-nitro-3-fenoxianilin; aklonifen (ISO)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

N; R 50-53

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

N

**R:** 50/53

**S:** 60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 68131-73-7 | EEC No 268-626-9 | No 612-121-00-1 |
|---|---|---|

ES: aminas, polietilenpoli-; HEPA

DA: aminer, polyethylenpoly-; HEPA

DE: Amine, Polyethylenpoly-; HEPA

EL: αμίνες, πολυαιθυλενοπολυ- HEPA

EN: Amines, polyethylenepoly-; HEPA

FR: amines, polyéthylènepoly-; HEPA

IT: amine, polietilenpoli-; HEPA

NL: aminen, polyethyleenpoly-; HEPA

PT: aminas, polietilenopoli-; HEPA

FI: amiinit, polyetyleenipoly-: HEPA

SV: aminer, polyetylenpoly-: HEPA

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 21/22 | C; R 34 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

C N

**R:** 21/22-34-43-50/53

**S:** (1/2-)26-36/37/39-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 25 % | C; R 21/22-34-43 |
| 10 % ≤ C < 25 % | C; R 34-43 |
| 5 % ≤ C < 10 % | Xi; R 36/38-43 |
| 1 % ≤ C < 5 % | Xi; R 43 |
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| Cas No 7803-49-8 | EEC No 232-259-2 | No 612-122-00-7 |
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$NH_2OH$

ES: hidroxilamina

DA: hydroxylamin

DE: Hydroxylamin

EL: υδροξυλαμίνη

EN: hydroxylamine

FR: hydroxylamine

IT: idrossilamina

NL: hydroxylamine

PT: hidroxilamina

FI: hydroksyyliamiini

SV: hydroxylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|---|
| R 5 | Xn; R 22-48/22 | Xi; R 37/38-41 | R 43 | N; R 50 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 5-22-37/38-41-43-48/22-50

**S:** (2-)22-26-36/37/39-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No | 5470-11-1 [1]<br>10039-54-0 [2]<br>10046-00-1 [3] |
|---|---|

| EEC No | 226-798-2 [1]<br>233-118-8 [2]<br>233-154-4 [3] |
|---|---|

| No 612-123-00-2 |
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$[NH_2OH] \cdot HCl$ [1]
$[NH_2OH]_2 \cdot H_2SO_4$ [2]
$[NH_2OH] \cdot H_2SO_4$ [3]

ES: cloruro de hidroxilamonio [1]; sulfato de bis(hidroxilamonio) [2]; hidrogenosulfato de hidroxilamonio [3]

DA: hydroxylammoniumchlorid [1]; bis(hydroxylammonium)sulfat [2]; hydroxylammoniumhydrogen-sulfat [3]

DE: Hydroxylammoniumchlorid [1]; Bis(hydroxylammonium)sulfat [2]; Hydroxylammoniumhydrogensulfat [3]

EL: χλωρίδιο του υδροξυλαμμωνίου [1]· θειικό δις(υδροξυλαμμώνιο) [2]· υδρογονοθειικό υδροξυλαμμώνιο [3]

EN: hydroxylammonium chloride [1]; bis(hydroxylammonium) sulphate [2]; hydroxylammonium hydrogensulphate [3]; hydroxylamine hydrochloride [1]; hydroxylamine sulphate (2:1) [2]; hydroxylamine sulphate (1:1) [3]

FR: chlorure d'hydroxylammonium [1]; sulfate de bis(hydroxylammonium) [2]; hydrogénosulfate d'hydroxylammonium [3]

IT: cloruro di idrossilammonio [1]; solfato di bis(idrossilammonio) [2]; idrogenosolfato di idrossilammonio [3]

NL: hydroxylammoniumchloride [1]; bis(hydroxylammonium)sulfaat [2]; hydroxylammoniumhydrogeensulfaat [3]

PT: cloreto de hidroxilamónio [1]; sulfato de bis(hidroxilamónio) [2]; hidrogénossulfato de hidroxilamónio [3]

FI: hydroksyyliammoniumkloridi [1]; bishydroksyyliammoniumsulfaatti [2]; hydroksyyliammoniumvetysulfaatti [3]

SV: hydroxylammoniumklorid [1]; hydroxylammoniumsulfat [2]; hydroxylammonium vätesulfat [3]

| Cas No | 5470-11-1 [1]<br>10039-54-0 [2]<br>10046-00-1 [3] |
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| EEC No | 226-798-2 [1]<br>233-118-8 [2]<br>233-154-4 [3] |
|---|---|

No 612-123-00-2

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|
| Xn; R 22-48/22 | Xi; R 36/38 | R 43 | N; R 50 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 22-36/38-43-48/22-50

**S:** (2-)22-24-37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 138-24-9 | EEC No 205-319-0 | No 612-124-00-8 |
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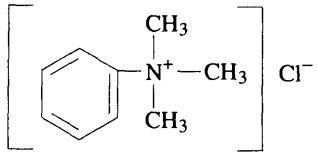

ES: cloruro de N,N,N-trimetilanilinio

DA: N,N,N-trimethylaniliniumchlorid

DE: N,N,N-Trimethylaniliniumchlorid

EL: χλωρίδιο του N,N,N-τριμεθυλανιλινίου

EN: N,N,N-trimethylanilinium chloride

FR: chlorure de N,N,N-triméthylanilinium

IT: cloruro di N,N,N-trimetilanilinio

NL: N,N,N-trimethylaniliniumchloride

PT: cloreto de N,N,N-trimetilanilínio

FI: N,N,N-trimetyylianiliniumkloridi

SV: N,N,N-trimetylfenylammoniumklorid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

T; R 24/25

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 24/25

**S:** (1/2-)25-39-45-53

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 95-70-5 | EEC No 202-442-1 | No 612-125-00-3 |
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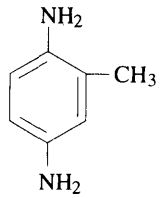

ES: 2-metil-*p*-fenilendiamina

DA: 2-methyl-*p*-phenylendiamin

DE: 2-Methyl-*p*-phenylendiamin; Toluylen-2,5-diamin

EL: 2-μεθυλο-π-φαινυλενοδιαμίνη

EN: 2-methyl-*p*-phenylenediamine

FR: 2-méthyl-*p*-phénylènediamine; toluène-2,5-diamine

IT: 2-metil-*p*-fenilendiamina; 2,5-diaminotoluene

NL: 2-methyl-*p*-fenyleendiamine

PT: 2-metil-*p*-fenilenodiamina

FI: 2-metyyli-*p*-fenyleenidiamiini

SV: 2-metyl-*p*-fenylendiamin; 2-metyl-1,4-benzendiamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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|---|---|---|---|
| T; R 25 | Xn; R 20/21 | R 43 | N; R 50-53 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 20/21-25-43-50/53

**S:** (1/2-)24-37-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 65321-67-7 | EEC No 265-697-8 | No 612-126-00-9 |
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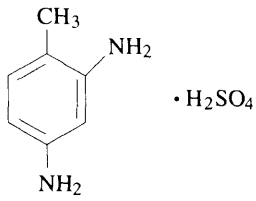
NOTA E



ES: sulfato de tolueno-2,4-diamonio

DA: toluen-2,4-diammoniumsulfat

DE: Toluol-2,4-diammoniumsulfat; Toluylen-2,4-diaminsulfat

EL: θειικό τολουενο-2-4-διαμμώνιο

EN: toluene-2,4-diammonium sulphate; 4-methyl-*m*-phenylenediamine sulfate

FR: sulfate de toluène-2,4-diammonium

IT: solfato di toluen-2,4-diammonio; 4-metil-*m*-fenilendiamina solfato

NL: tolueen-2,4-diammoniumsulfaat

PT: sulfato de tolueno-2,4-diamónio

FI: tolueeni-2,4-diammoniumsulfaatti; 4-metyyli-m-fenyleenidiamiinisulfaatti

SV: toluen-2,2-diammoniumsulfat

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Carc. Cat. 2; R 45 | T; R 25 | Xn; R 21 | Xi; R 36 | R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T N

**R:** 45-21-25-36-43-50/53

**S:** 53-45-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 591-27-5 | EEC No 209-711-2 | No 612-127-00-4 |
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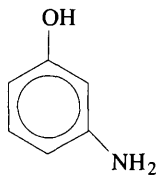


ES: 3-aminofenol

DA: 3-aminophenol

DE: 3-Aminophenol

EL: 3-αμινοφαινόλη

EN: 3-aminophenol

FR: 3-aminophénol

IT: 3-aminofenolo

NL: 3-aminofenol

PT: 3-aminofenol

FI: 3-aminofenoli

SV: 3-aminofenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 20/22 | N; R 51-53 |
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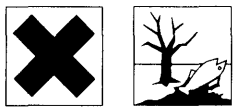
*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N



**R:** 20/22-51/53

**S:** (2-)28-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 123-30-8 | EEC No 204-616-2 | No 612-128-00-X |
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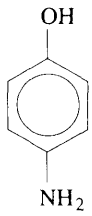


ES: 4-aminofenol

DA: 4-aminophenol

DE: 4-Aminophenol

EL: 4-αμινοφαινόλη

EN: 4-aminophenol

FR: 4-aminophénol

IT: 4-aminofenolo

NL: 4-aminofenol

PT: 4-aminofenol

FI: 4-aminofenoli

SV: 4-aminofenol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Muta. Cat. 3; R 40 | Xn; R 20/22 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 20/22-40-50/53

**S:** (2-)28-36/37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 108-18-9 | EEC No 203-558-5 | No 612-129-00-5 |
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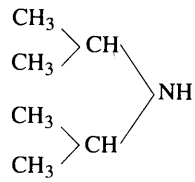

ES: diisopropilamina

DA: diisopropylamin

DE: Diisopropylamin

EL: διισοπροπυλαμίνη

EN: diisopropylamine

FR: diisopropylamine

IT: diisopropilamina

NL: diisopropylamine

PT: diisopropilamina

FI: diisopropyyliamiini

SV: diisopropylamin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| F; R 11 | Xn; R 20/22 | C; R 34 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

F C

**R:** 11-20/22-34

**S:** (1/2-)16-26-36/37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| C ≥ 25 % | C; R 20/22-34 |
| 10 % ≤ C < 25 % | C; R 34 |
| 5 % ≤ C < 10 % | Xi; R 36/37/38 |
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| Cas No 149-30-4 | EEC No 205-736-8 | No 613-108-00-3 |
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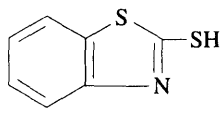


ES: benzotiazol-2-tiol

DA: benzothiazol-2-thiol

DE: Benzothiazol-2-thiol; 2-Mercaptobenzothiazol

EL: βενζοθειαζολ-2-θειόλη

EN: benzothiazole-2-thiol

FR: benzothiazole-2-thiol; mercaptobenzothiazole

IT: benzotiazol-2-tiolo; mercaptobenzotiazolo

NL: benzothiazool-2-thiol

PT: benzotiazole-2-tiol

FI: bentsotiatsoli-2-tioli

SV: benzotiazol-2-tiol

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 43 | N; R 50-53 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

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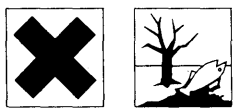

**R:** 43-50/53

**S:** (2-)24-37-60-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 94-37-1 | EEC No 202-328-1 | No 613-109-00-9 |
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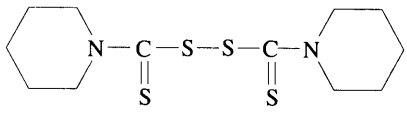

ES: disulfuro de bis(piperidinotiocarbonilo)

DA: bis(piperidinothiocarbonyl)disulfid

DE: Bis(piperidinothiocarbonyl)disulfid

EL: δισουλφίδιο του δις(πιπεριδινοθειοκαρβονυλίου)

EN: bis(piperidinothiocarbonyl) disulphide

FR: disulfure de bis(pipéridinothiocarbonyle)

IT: disolfuro di bis(piperidinotiocarbonile)

NL: bis(piperidinothiocarbonyl)disulfide

PT: dissulfureto de bis(piperidinotiocarbonilo)

FI: bis(piperidiinotiokarbonyyli)disulfidi

SV: bis(piperidintiokarbonyl)disulfid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 43 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

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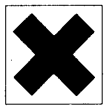

**R:** 36/37/38-43

**S:** (2-)24-26-37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 61432-55-1 | EEC No 262-784-2 | No 613-110-00-4 |
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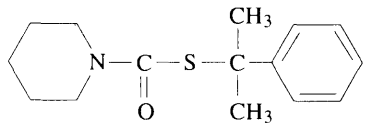

ES: piperidina-1-carbotioato de *S*-(1-fenil-1-metiletilo)

DA: *S*-(1-methyl-1-phenylethyl)piperidin-1-carbothioat

DE: *S*-(1-Methyl-1-phenylethyl)piperidin-1-carbothioat

EL: πιπεριδινο-1-καρβοθειοϊκό *S*-(1-μεθυλο-1-φαινυλαιθύλιο)

EN: *S*-(1-methyl-1-phenylethyl) piperidine-1-carbothioate

FR: pipéridine-1-carbothioate de *S*-(1-méthyl-1-phényléthyle); dimépipérate

IT: piperidin-1-carbotioato di *S*-(1-fenil-1-metiletile)

NL: *S*-(1-fenyl-1-methylethyl)piperidine-1-carbothioaat

PT: piperidina-1-carbotioato de *S*-(1-fenil-1-metiletilo)

FI: S-(1-metyyli-1-fenyylietyyli)piperidiini-1-karbotioaatti; dimepiperaatti

SV: S-(1-metyl-1-fenyletyl)piperidin-1-karbotioat; dimepiperat (ISO)

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xn; R 22 | N; R 51-53 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn N

**R:** 22-51/53

**S:** (2-)61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 538-75-0 | EEC No 208-704-1 | No 615-019-00-5 |
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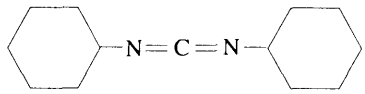

ES: diciclohexilcarbodiimida

DA: dicyclohexylcarbodiimid

DE: Dicyclohexylcarbodiimid

EL: δικυκλοεξυλοκαρβοδιμίδιο

EN: dicyclohexylcarbodiimide

FR: dicyclohexylcarbodiimide

IT: dicicloesilcarbodiimide

NL: dicyclohexylcarbodiimide

PT: diciclohexilcarbodiimida

FI: disykloheksyylikarbodi-imidi

SV: dicyklohexylkarbodiimid

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| | | | |
|---|---|---|---|
| T; R 24 | Xn; R 22 | Xi; R 41 | R 43 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 22-24-41-43

**S:** (1/2-)24-26-37/39-45

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 6317-18-6 | EEC No 228-652-3 | No 615-020-00-0 |
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$$NC-S-CH_2-S-CN$$

ES: ditiocianato de metileno

DA: methylendithiocyanat

DE: Methylendithiocyanat

EL: διθειοκυανικό μεθυλένιο

EN: methylene dithiocyanate

FR: dithiocyanate de méthylène

IT: ditiocianato di metilene; metilene ditiocianto

NL: methyleendithiocyanaat

PT: ditiocianato de metileno

FI: metyleeniditiosyanaatti

SV: metylenditiocyanat; ditiocyanatometan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| R 43 | N; R 50 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xi N

**R:** 43-50

**S:** (2-)24-37-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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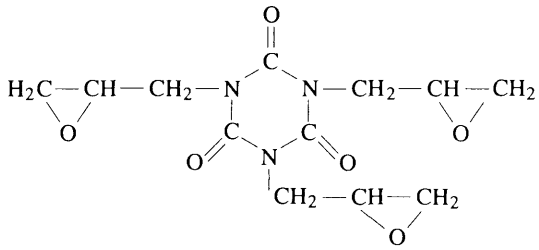
| Cas No 2451-62-9 | EEC No 219-514-3 | No 615-021-00-6 |
|---|---|---|

NOTA E



ES: 1,3,5-tris(oxiranilmetil)-1,3,5-triazina-2,4,6(1*H*,3*H*,5*H*)-triona; TGIC

DA: 1,3,5-tris(oxiranylmethyl)-1,3,5-triazin-2,4,6(1*H*,3*H*,5*H*)-trion; TGIC

DE: 1,3,5-Tris(oxiranylmethyl)-1,3,5-triazin-2,4,6(1*H*,3*H*,5*H*)-trion; TGIC

EL: 1,3,5-τρις(οξιρανυλομεθυλο)-1,3,5-τριαζινο-2,4,6(1*H*,3*H*,5*H*)-τριόνη· TGIC

EN: 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1*H*,3*H*,5*H*)-trione; TGIC

FR: 1,3,5-tris(oxirannylméthyl)-1,3,5-triazine-2,4,6(1*H*,3*H*,5*H*)-trione; TGIC

IT: 1,3,5-tris(ossiranilmetil)-1,3,5-triazin-2,4,6(1*H*,3*H*,5*H*)-trione; TGIC

NL: 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1*H*,3*H*,5*H*)-trion; TGIC

PT: 1,3,5-tris(oxiranilmetil)-1,3,5-triazina-2,4,6(1*H*,3*H*,5*H*)-triona; TGIC

FI: 1,3,5-tris(oksiranyylimetyyli)-1,3,5-triatsiini-2,4,6(1*H*,3*H*,5*H*)-trioni; TGIC

SV: triglycidylisocyanurat; TGIC

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Muta. Cat. 2; R 46 | T; R 23/25 | Xn; R 48/22 | Xi; R 41 | R 43 | R 52-53 |
|---|---|---|---|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

T

**R:** 46-23/25-41-43-48/22-52/53

**S:** 53-45-61

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-22-3 | EEC No 232-589-7 | No 647-001-00-8 |
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ES: glucosidasa, β-

DA: glucosidase, β-

DE: Glucosidase, β-

EL: γλυκοζιδάση, β-

EN: Glucosidase, β-

FR: glucosidase, β-

IT: glucosidasi, β-

NL: glucosidase, β-

PT: glucosidase, β-

FI: glukosidaasi, β-

SV: glukosidas, β-

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9012-54-8 | EEC No 232-734-4 | No 647-002-00-3 |
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ES: celulasa

DA: cellulase

DE: Cellulase

EL: κυτταρινάση

EN: Cellulase

FR: cellulase

IT: cellulasi

NL: cellulase

PT: celulase

FI: sellulaasi

SV: cellulas

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 37329-65-0 | EEC No 253-465-9 | No 647-003-00-9 |
|---|---|---|

ES: celobiohidrolasa, exo-

DA: cellobiohydrolase, exo-

DE: Cellobiohydrolase, Exo-

EL: κελλοβιοϋδρολάση, εξω-

EN: Cellobiohydrolase, exo-

FR: cellobiohydrolase, exo-

IT: cellobioidrolasi, eso-

NL: cellobiohydrolase, exo-

PT: celobiohidrolase, exo-

FI: sellobiohydrolaasi, ekso-

SV: cellobiohydralas, exo-

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 647-004-00-4 |
|---|---|---|

ES: celulasa excepto aquellos específicamente expresados en este Anexo

DA: cellulaser undtagen sådanne nævnt andetsteds i dette bilag

DE: Cellulasen mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: κυτταρινάσες εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: cellulases with the exception of those specified elsewhere in this Annex

FR: cellulases à l'exception de celles nommément désignées dans cette annexe

IT: cellulasi escluse quelle espressamente indicate in questo allegato

NL: cellulase met uitzondering van de in deze bijlage met name genoemde

PT: celulase com excepção dos expressamente referidos no presente anexo

FI: sellulaasit paitsi muualla tässä liitteessä mainitut

SV: cellulaser med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-00-7 | EEC No 232-572-4 | No 647-005-00-X |
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ES: bromelaína, jugo

DA: bromelain, saft

DE: Bromelain, Fruchtsaft-

EL: βρομελαΐνης, χυμός

EN: Bromelain, juice

FR: broméline, jus

IT: bromelina, succo

NL: bromelia, sap

PT: bromelaína, suco

FI: bromelaiini, mehu

SV: bromelain, saft

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-33-6 | EEC No 232-599-1 | No 647-006-00-5 |
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ES: ficina

DA: ficin

DE: Ficin

EL: φισίνη

EN: Ficin

FR: ficine

IT: ficina

NL: ficine

PT: ficina

FI: fisiini

SV: ficin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-73-4 | EEC No 232-627-2 | No 647-007-00-0 |
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ES: papaína

DA: papain

DE: Papain

EL: παπαΐνη

EN: Papain

FR: papaïne

IT: papaina

NL: papaïne

PT: papaína

FI: papaiini

SV: papain

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-75-6 | EEC No 232-629-3 | No 647-008-00-6 |
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ES: pepsina A

DA: pepsin A

DE: Pepsin A

EL: πεψίνη A

EN: Pepsin A

FR: pepsine A

IT: pepsina A

NL: pepsine A

PT: pepsina A

FI: pepsiini A

SV: pepsin A

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9001-98-3 | EEC No 232-645-0 | No 647-009-00-1 |
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ES: renina

DA: rennin

DE: Rennin

EL: ρεννίνη

EN: Rennin

FR: rennine

IT: rennina

NL: rennine

PT: renina

FI: renniini

SV: rennin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

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| Xi; R 36/37/38 | R 42 |

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9002-07-7 | EEC No 232-650-8 | No 647-010-00-7 |
|---|---|---|

ES: tripsina

DA: trypsin

DE: Trypsin

EL: θρυψίνη

EN: Trypsin

FR: trypsine

IT: tripsina

NL: trypsine

PT: tripsina

FI: trypsiini

SV: trypsin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9004-07-3 | EEC No 232-671-2 | No 647-011-00-2 |
|---|---|---|

ES: quimotripsina

DA: chymotrypsin

DE: Chymotrypsin

EL: χυμοθρυψίνη

EN: Chymotrypsin

FR: chymotrypsine

IT: chimotripsina

NL: chymotrypsine

PT: quimotripsina

FI: kymotrypsiini

SV: chymotrypsin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9014-01-1 | EEC No 232-752-2 | No 647-012-00-8 |
|---|---|---|

ES: subtilisina

DA: subtilisin

DE: Subtilisin

EL: σουπτιλισίνη

EN: Subtilisin

FR: subtilisine

IT: subtilisina

NL: subtilisine

PT: subtilisina

FI: subtilisiini

SV: subtilisin

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 37/38-41 | R 42 |
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*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 37/38-41-42

**S:** (2-)22-24-26-36/37/39

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9068-59-1 | EEC No 232-966-6 | No 647-013-00-3 |
|---|---|---|

ES: proteinasa, microbiana neutra

DA: proteinase, mikrobiel neutral-

DE: Proteinase, mikrobenneutral

EL: πρωτεϊνάση, μικροβιακή ουδέτερη

EN: Proteinase, microbial neutral

FR: protéinase neutre microbienne

IT: proteinasi, microbica neutra

NL: proteïnase, microbieel neutraal

PT: proteinase, neutra microbiana

FI: proteinaasi, neutraali mikrobiperäinen

SV: proteas, neutralt mikrobiellt

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 647-014-00-9 |
|---|---|---|

ES: protease excepto aquellos específicamente expresados en este Anexo

DA: proteaser undtagen sådanne nævnt andetsteds i dette bilag

DE: Proteasen mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: πρωτεάσες εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: proteases with the exception of those specified elsewhere in this Annex

FR: protéases à l'exception de celles nommément désignées dans cette annexe

IT: proteasi escluse quelle espressamente indicate in questo allegato

NL: protease met uitzondering van de in deze bijlage met name genoemde

PT: protease com excepção dos expressamente referidos no presente anexo

FI: proteaasit paitsi muualla tässä liitteessä mainitut

SV: proteaser med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

| Xi; R 36/37/38 | R 42 |
|---|---|

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 36/37/38-42

**S:** (2-)22-24-26-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No 9000-90-2 | EEC No 232-565-6 | No 647-015-00-4 |
|---|---|---|

ES: amilasa, α-

DA: amylase, α-

DE: Amylase, α-

EL: αμυλάση, α-

EN: Amylase, α-

FR: amylase, α-

IT: amilasi, α-

NL: amylase, α-

PT: amilase, α-

FI: amylaasi, α-

SV: amylas, α-

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

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**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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| Cas No — | EEC No — | No 647-016-00-X |
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ES: amilasa excepto aquellos específicamente expresados en este Anexo

DA: amylaser undtagen sådanne nævnt andetsteds i dette bilag

DE: Amylasen mit Ausnahme der namentlich in diesem Anhang bezeichneten

EL: αμυλάσες εκτός εκείνων που κατονομάζονται σε άλλο σημείο αυτού του παραρτήματος

EN: amylases with the exception of those specified elsewhere in this Annex

FR: amylases à l'exception de celles nommément désignées dans cette annexe

IT: amilasi escluse quelle espressamente indicate in questo allegato

NL: amylase met uitzondering van de in deze bijlage met name genoemde

PT: amilase com excepção dos expressamente referidos no presente anexo

FI: amylaasit paitsi muualla tässä liitteessä mainitut

SV: amylaser med undantag för de föreningar som är upptagna på annat ställe i bilagan

*Clasificación, Klassificering, Einstufung, Ταξινόμηση, Classification, Classification, Classificazione, Indeling, Classificação, Luokitus, Klassificering*

R 42

*Etiquetado, Etikettering, Kennzeichnung, Επισήμανση, Labelling, Étiquetage, Etichettatura, Kenmerken, Rotulagem, Merkinnät, Märkning*

Xn

**R:** 42

**S:** (2-)22-24-36/37

*Límites de concentración, Koncentrationsgrænser, Konzentrationsgrenzwerte, Όρια συγκέντρωσης, Concentration limits, Limites de concentration, Limiti di concentrazione, Concentratiegrenzen, Limites de concentração, Pitoisuusrajat, Koncentrationsgränser*

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*ANNEX IV A*

# 'PART B: METHODS FOR THE DETERMINATION OF TOXICITY AND OTHER HEALTH EFFECTS

## GENERAL INTRODUCTION: PART B

### A. EXPLANATORY NOTE

For the purposes of the General Introduction, the following numbering applies:

B.15. Gene mutation-*Saccharomyces cerevisiae*

B.16. Mitotic recombination-*Saccharomyces cerevisiae*

B.17. *In vitro* mammalian cell gene mutation test

B.18. DNA damage and repair-unscheduled DNA synthesis-mammalian cells in vitro

B.19. Sister chromatid exchange assay *in vitro*

B.20. Sex-linked recessive lethal test in *Drosophila melanogaster*

B.21. *In vitro* mammalian cell transformation tests

B.22. Rodent dominant lethal test

B.23. *In vivo* mammalian germ-cell cytogenetics

B.24. Mouse spot test

B.25. Mouse heritable translocation

B.26. Sub-chronic oral toxicity test: 90-day repeated oral dose using rodent species

B.27. Sub-chronic oral toxicity test: 90-day repeated oral dose using non-rodent species

B.28. Sub-chronic dermal toxicity study: 90-day repeated dermal dose study using rodent species

B.29. Sub-chronic inhalation toxicity study: 90-day repeated inhalation dose study using rodent species

B.30. Chronic toxicity test

B.31. Teratogenicity test — rodent and non-rodent

B.32. Carcinogenicity test

B.33. Combined chronic toxicity/carcinogenicity test

B.34. One-generation reproduction toxicity test

B.35. Two-generation reproduction toxicity test

B.36. Toxicokinetics

### B. GENERAL DEFINITIONS FOR TERMS USED IN THE TEST METHODS IN THIS ANNEX

(i) **Acute toxicity** comprises the adverse effects occurring within a given time (usually 14 days), after administration of a single dose of a substance.

(ii) **Evident toxicity** is a general term describing clear signs of toxicity following administration of test substance. These should be sufficient for hazard assessment and should be such that an increase in the dose administered can be expected to result in the development of severe toxic signs and probable mortality.

(iii) **Dose** is the amount of test substance administered. Dose is expressed as weight (grams or milligrams) or as weight of test substance per unit weight of test animal (e.g. milligrams per kilogram body weight), or as constant dietary concentrations (parts per million or milligrams per kilogram of food).

(iv) **Discriminating dose** is the highest out of the four fixed dose levels which can be administered without causing compound-related mortality (including humane kills).

(v) **Dosage** is a general term comprising of dose, its frequency and the duration of the dosing.

(vi) **$LD_{50}$** (median lethal dose) is a statistically derived single dose of a substance that can be expected to cause death in 50 % of dosed animals. The $LD_{50}$ value is expressed in terms of weight of test substance per unit weight of test animal (milligrams per kilogram).

(vii) **$LC_{50}$** (median lethal concentration) is a statistically derived concentration of a substance that can be expected to cause death during exposure or within a fixed time after exposure in 50 % of animals exposed for a specificed time.

**The $LC_{50}$** value is expressed as weight of test substance per standard volume of air (milligrams per litre).

(viii) **NOAEL** is the abbreviation for no observed adverse effect level and is the highest dose or exposure level where no adverse treatment-related findings are observed.

(ix) **Repeated dose/Sub-chronic toxicity** comprises the adverse effects occurring in experimental animals as a result of repeated daily dosing with, or exposure to, a chemical for a short part of their expected life-span.

(x) **Maximum Tolerated Dose (MTD)** is the highest dose level eliciting signs of toxicity in animals without having major effects on survival relative to the test in which it is used.

(xi) **Skin irritation** is the production of inflammatory changes in the skin following the application of a test substance.

(xii) **Eye irritation** is the production of changes in the eye following the application of a test substance to the anterior surface of the eye.

(xiii) **Skin sensitisation** (allergic contact dermatitis) is an immunologically mediated cutaneous reaction to a substance.

(xiv) **Dermal corrosion** is the production of irreversible tissue damage in the skin following the application of a test substance for the duration period of 3 minutes up to 4 hours.

(xv) **Toxicokinetics** is the study of the absorption, distribution, metabolism and excretion of test substances.

(xvi) **Absorption** is the process(es) by which an administered substance enters the body.

(xvii) **Excretion** is the process(es) by which the administered substance and/or its metabolites are removed from the body.

(xviii) **Distribution** is the process(es) by which the absorbed substance and/or its metabolites partition within the body.

(xvv) **Metabolism** is the process(es) by which the administered substances are structurally changed in the body by either enzymatic or non enzymatic reactions.

### B.1 Acute — repeated dose / subchronic and chronic toxicity

The acute toxic effects and organ or system toxicity of a substance may be evaluated using a variety of toxicity tests (Methods B.1-B.5) from which, following a single dose, a preliminary indication of toxicity may be obtained.

Dependent on the toxicity of the substance, a limit test approach to a full $LD_{50}$ may be considered, although no limit test is specified in inhalation studies, because it has not been possible to define a single inhalation exposure limit value.

Consideration should be given to methods which use as few animals as possible and minimise animal suffering, for example the fixed dose method (Method B.1 bis) and acute toxic class (Method B.1 tris). In level 1 testing, a study in a second species may complement the conclusions drawn from the first study. In this case, a standard test method may be used or the method may be adapted for a smaller number of animals.

The repeated dose toxicity test (Methods B.7, B.8 and B.9) includes assessment of toxic effects arising from repeated exposure. The need for careful clinical observations of the animals is stressed, so as to obtain as much information as possible. These tests should help to identify the target organs of toxicity and the toxic and non-toxic doses. Further in-depth investigation of these aspects may be required in long term studies (Methods B.26 - B.30 and B.33).

B.II **Mutagenicity — Genotoxicity**

Mutagenicity refers to the induction of permanent transmissible changes in the amount or structure of the genetic material of cells or organisms. These changes, "mutations", may involve a single gene or gene segments, a block of genes, or whole chromosomes. Effects on whole chromosomes may be structural and/or numerical.

The mutagenic activity of a substance is assessed by *in vitro* assays for gene (point) mutations in bacteria (Method B.13/14) and/or for structural chromosome aberrations in mammalian cells, (Method B.10).

Acceptable are also *in vivo* procedures, e.g. the micronucleus test (Method B.12) or the metaphase analysis of bone marrow cells, (Method B.11). However, in the absence of any contraindication the *in vitro* methods are strongly preferred.

Additional studies to investigate mutagenicity further or to pre-screen for carcinogenicity may be required for higher production volumes and/or to conduct or follow-up a risk assessment, and these can be used for a number of purposes: to confirm results obtained in the base set; to investigate end-points not studied in the base set; to initiate or extend *in vivo* studies.

For these purposes, methods B.15 to B.25 include both *in vivo* and *in vitro* eukaryotic systems and an extended range of biological end-points. These tests provide information on point mutations and other end-points in organisms more complex than the bacteria used for the base set.

As a general principle, when a programme of further mutagenicity studies is considered, it should be designed so as to provide relevant additional information on the mutagenic and/or carcinogenic potential of that substance.

The actual studies which may be appropriate in a specific instance will depend on numerous factors, including the chemical and physical characteristics of the substance, the results of the initial bacterial and cytogenetic assays, the metabolic profile of the substance, the results of other toxicity studies, and the known uses of the substance. A rigid schedule for selection of tests is therefore inappropriate in view of the variety of factors which may require consideration.

Some general principles for the testing strategy are laid down by Dir. 93/67/EEC, but clear testing strategies may be found in the technical guidance document for Risk Assessment, which nevertheless is flexible and can be adapted as appropriate to specific circumstances.

Methods for further investigation are however grouped below, on the basis of their principal genetic end-point:

*Studies to investigate gene (point) mutations*

(a) Forward or reverse mutation studies using eukaryotic micro-organisms *(Saccharomyces cerevisiae)* (Method B.15)

(b) *In vitro* studies to investigate forward mutation in mammalian cells, (Method B.17)

(c) The sex-linked recessive lethal assay in *Drosophila melanogaster,* (Method B.20)

(d) *In vivo* somatic cell mutation assay, the mouse spot test, (Method B.24)

*Studies to investigate chromosome aberrations*

(a) *In vivo* cityogenetic studies in mammals; *In vivo* metaphase analysis of bone marrow cells should be considered if it has not been included in the initial assessment (Method B.11). In addition, *in vivo* germ cell cytogenetics may be investigated, (Method B.23)

(b) *In vitro* citogenetic studies in mammalian cells, if this has not been included in the initial assessment, (Method B.10)

(c) Dominant lethal studies in rodents, (Method B.22)

(d) Mouse heritable translocation test, (Method B.25)

*Genotoxic effects — effects on DNA*

Genotoxicity, identified as potentially harmful effects on genetic material not necessarily associated with mutagenicity, may be indicated by induced damage to DNA without direct evidence of mutation. The following methods using eukaryotic micro-organisms or mammalian cells may be appropriate for such investigation:

(a) Mitotic recombination in *saccharomyces cerevisiae,* (Methods B.16)

(b) DNA damage and repair — unscheduled DNA synthesis — mammalian cells — *in vitro,* (Method B.18)

(c) Sister chromatid exchange in mammalian cells — *in vitro,* (Method B.19)

*Alternative methods for investigating carcinogenic potential*

Mammalian cell-transformation assays are available which measure the ability of a substance to induce morphological and behavioural changes in cell cultures, which are thought to be associated with malignant transformation — *in vivo,* (Method B.21). A number of different cell types and criteria for transformation may be used.

*Risk assessment for heritable effects in mammals*

There are methods available to measure heritable effects in whole mammals produced by gene (point) mutations, e. g. the mouse specific locus test, to measure germ-cell mutation in the first generation, (not included in this Annex), or for chromosome aberrations, e. g. the mouse heritable translocation test, (Method B.25). Such methods may be used when estimating the possible genetic risk of a substance to man. However, in view of the complexities involved in these tests and the very large number of animals necessary, particularly for the specific locus test, a strong justification is needed before undertaking these studies.

## B.III **Carcinogenicity**

Chemicals may be described as genotoxic or non-genotoxic carcinogens, dependent on the presumed mechanism of action.

Pre-screening information for genotoxic carcinogenic potential of a substance may be obtained from the mutagenicity/genotoxicity studies. Additional information may be obtained from the repeated dose, subchronic or chronic toxicity tests. The repeated dose toxicity test, Method B.7 and longer repeated dose studies include assessment on histopathological changes observed in repeated dose toxicity tests, e. g. hyperplasia in certain tissues which could be of concern. These studies and toxicokinetic information may help to identify chemicals with carcinogenic potential, which may require further indepth investigation of this aspect, in a carcinogenicity test (Method B.32) or often in a combined chronic toxicity/carcinogenicity study (Method B.33)

## B.IV **Reproductive Toxicity**

Reproductive toxicity may be detected in different ways e. g. impairment of male and female reproductive functions or capacity, identified as "effects on fertility", or induction of non-inheritable harmful effects on the progeny, identified as "development toxicity" where teratogenicity and effects during lactation are also included.

For teratogenicity studies, as part of the developmental toxicity testing, the test method (Method B.31), is primarily directed to administration by the oral route. Alternatively, other routes may be used depending on the physical properties of the test substance or likely route of human exposure. In such cases, the test method should be suitably adapted taking into consideration the appropriate elements of the 28-day test methods.

Where a three-generation reproduction (fertility) test is required, the described method for the two-generation reproduction test (Method B.35), can be extended to cover a third generation.

## B.V **Neurotoxicity**

Neurotoxicity may be detected in different ways e. g. functional changes and/or structural and biochemical changes in the central or peripheral nervous system. A preliminary indication of neurotoxicity may be obtained from acute toxicity tests. The repeated dose toxicity test, Method B.7, includes assessment of neurotoxicological effects, and the need for careful clinical observations of the animals is stressed, so as to obtain as much information as possible. The method should help to identify chemicals with neurotoxic potential, which may require further in-depth investigation of this aspect. Additionally, it is important to consider the potential of substances to cause specific neurotoxic effects that may not be detected in other toxicity studies. For example, certain organophosphorous substances have been observed to cause delayed neurotoxicity and can be evaluated in methods B.37 and B.38, following single or repeated-dose exposure.

B.VI **Immunotoxicity**

Immunotoxicity may be detected in different ways e. g. immunosupression and/or enhancement of the responsiveness of the immune system resulting in either hypersensitivity or induced autoimmunity. The repeated dose toxicity test, Method B.7, includes assessment of immunotoxic effects. The method should help to identify chemicals with immunotoxic potential, which may require further in-depth investigation of this aspect.

B.VII **Toxicokinetics**

Toxicokinetic studies help in the interpretation and evaluation of toxicity data. These studies are intended to elucidate particular aspects of the toxicity of the chemical under test and the results may assist in the design of further toxicity studies. It is not envisaged that in every case all parameters will need to be determined. Only in rare cases will the whole sequence of toxicokinetic studies (absorption, excretion, distribution and metabolism) be necessary. For certain compounds, changes in this sequence may be advisable or a single-dose study may be sufficient (Method B.36).

Information on chemical structure (SAR) and physico-chemical properties may also provide an indication of the absorption characteristics by the intended route of administration and the metabolic and tissue distribution possibilities. There may also be infomation on toxicokinetic parameters from preceding toxicity and toxicokinetic studies.

## C. CHARACTERISATION OF THE TEST SUBSTANCE

The composition of the test substance, including major impurities, and its relevant physico-chemical properties including stability, should be known prior to the initiation of any toxicity study.

The physico-chemical properties of the test substance provide important information for the selection of the route of administration, the design of each particular study and the handling and storage of the test substance.

The development of an analytical method for qualitative and quantitative determination of the test substance (including major impurities when possible) in the dosing medium and the biological material should precede the initiation of the study.

All information relating to the identification, the physico-chemical properties, the purity, and behaviour of the test substance should be included in the test report.

## D. ANIMAL CARE

Stringent control of environmental conditions and proper animal care techniques are essential in toxicity testing.

(i) *Housing conditions*

The environmental conditions in the experimental animal rooms or enclosures should be appropriate to the test species. For rats, mice and guinea pigs, suitable conditions are a room temperature of 22° C ± 3° C with a relative humidity of 30 to 70 %; for rabbits the temperature should be 20 ± 3° C with a relative humidity of 30 to 70 %.

Some experimental techniques are particularly sensitive to temperature effects and, in these cases, details of appropriate conditions are included in the description of the test method. In all investigations of toxic effects, the temperature and humidity should be monitored, recorded, and included in the final report of the study.

Lighting should be artificial, the sequence being 12 hours light, 12 hours dark. Details of the lighting pattern should be recorded and included in the final report of the study.

Unless otherwise specified in the method, animals may be housed individually, or be caged in small groups of the same sex; for group caging, no more than five animals should be housed per cage.

In reports of animal experiments, it is important to indicate the type of caging used and the number of animals housed in each cage both during exposure to the chemical and any subsequent observation period.

(ii) *Feeding conditions*

Diets should meet all the nutritional requirements of the species under test. Where test substances are administered to animals in their diet the nutritional value may be reduced by interaction between the substance and a dietary constituent. The possibility of such a reaction should be considered when interpreting the results of tests. Conventional laboratory diets may be used with an unlimited supply of drinking water. The choice of the diet may be influenced by the need to ensure a suitable admixture of a test substance when administered by this method.

Dietary contaminants which are known to influence the toxicity should not be present in interfering concentrations.

E. ANIMAL WELFARE

When elaborating the test methods due consideration was given to animal welfare. Some examples are briefly given below, but this list is not exhaustive. The exact wording and/or conditions should be read in the text of the methods:

— For the determination of acute oral toxicity, two alternative methods, the "Fixed Dose Procedure" and the "Acute Toxic Class method" should be considered. The "Fixed Dose Procedure" does not utilise death as specific endpoint and it uses fewer animals. The "Acute Toxic Class method" uses on average 70 % less animals than Method B.1 for Acute Oral toxicity. Both these alternative methods result in less pain and distress than the classical methodology.

— The number of animals used is reduced to the scientifically acceptable minimum: only 5 animals of the same sex are tested per dose level for methods B.1 and B.3; only 10 animals (and only 5 for the negative control group) are used for the determination of the skin sensitisation by the guinea pig maximisation test (method B.6); the number of animals needed for the positive control when testing mutagenicity *in vivo* is also lowered (methods B.11 and B.12)

— Pain and distress of animals during the tests are minimised: animals showing severe and enduring signs of distress and pain may need to be humanely killed; dosing test substances in a way known to cause marked pain and distress due to corrosive or irritating properties need not to be carried out (methods B.1, B.2 and B.3).

— Testing with irrelevantly high doses is avoided by the introduction of limit tests, not only in the acute toxicity tests (methods B.1, B.2 and B.3) but also in the *in vivo* tests for mutagenicity (methods B.11 and B.12).

— A strategy of testing for irritancy now allows the non-performance of a test, or its reduction to a single animal study, when sufficient scientific evidence can be provided.

Such scientific evidence can be based on the physico-chemical properties of the substance, the results of other tests already performed, or the results of well validated *in vitro* tests. For example, if an acute toxicity study by the dermal route has been conducted at the limit test dose with the substance (method B.3), and no skin irritation was observed, further testing for skin irritation (method B.4) may be unnecessary; materials which have demonstrated definite corrosion or severe skin irritancy in a dermal irritation study (method B.4) should not be further tested for eye irritancy (method B.5).

F. ALTERNATIVE TESTING

A scientific objective for the European Union is the development and validation of alternative techniques which can provide the same level of information as current animal tests, but which use fewer animals, cause less suffering or avoid the use of animals completely.

Such methods, as they become available, must be considered wherever possible for hazard characterisation and consequent classification and labelling for intrinsic hazards.

G. EVALUATION AND INTERPRETATION

When tests are evaluated and interpreted, limitations in the extent to which the results of animal and *in vitro* studies can be extrapolated directly to man must be considered and therefore, evidence of adverse effects in humans, where available, may be used for confirmation of testing results.

These results, can be used for the classification and labelling of the new and the existing chemicals for human health effects, on the basis of their intrinsic properties, identified and quantified by these methods. Corresponding Annex VI criteria for classification and labelling relate also to the end-points of the testing protocols included in these testing methods.

These results can also be used for risk assessment studies, for new and existing chemicals, and appropriate testing strategies for these purposes are indicated in the corresponding guidance documents.

H. LITERATURE REFERENCES

Most of these methods are developed within the framework of the OECD programme for Testing Guidelines, and should be performed in conformity with the principles of Good Laboratory Practice, in order to ensure as wide as possible "mutual acceptance of data".

Additional information may be found in the references found in the OECD guidelines and the relevant literature published elsewhere.'

*ANNEX IV B*

'B.1 tris ACUTE TOXICITY (ORAL) — ACUTE TOXIC CLASS METHOD

## 1. METHOD

### 1.1. Introduction

The acute toxic class method provides information both for hazard assessment and for hazard classification purposes.

The method uses three fixed doses, adequately separated to enable a compound to be ranked, based on the results of the study. Besides, the procedure described in this test method allows for the selection of three additional fixed doses, which could either be used as alternative options at given decision points or as option for further testing. The use of (any of the) additional doses may be considered in case a further refinement may be desirable or necessary.

The method uses defined starting doses and is not intended to allow the calculation of a precise $LD_{50}$, but does allow for the determination of a range of exposure where lethality is expected, since death of a proportion of the animals is still the major end-point of this test. The results of the test should allow for classification according to Annex VI criteria. Due to the sequential nature of the approach, the duration of the test could be longer than the procedure described in the B.1. The main advantage of this method is that it requires a smaller number of animals than both the acute toxicity (oral) (B.1) and the alternative Fixed Dose Method (B.1bis).

See also General Introduction Part B.

### 1.2. Definitions

See General Introduction Part B.

### 1.3. Principle of the test method

The substance is administered orally to a group of experimental animals at one of the defined doses. The substance is tested using a stepwise procedure, each step using three animals of one sex. It is not necessary to perform a preliminary sighting study. Absence or presence of substance related mortality of the animals dosed at one step will determine the next step, i.e.:

— no further testing is needed

— the next step will be performed with the same dose, but with animals of the other sex

— the next step will be performed at the next higher or the next lower dose level

### 1.4. Description of the test method

#### 1.4.1. *Preparations*

Healthy young adult animals are randomly selected, marked to permit individual identification, and kept in their cages for at least 5 days prior to the start of the test, to allow for acclimatisation to the laboratory conditions. The animals may be group-caged by sex and dose, but the number of animals per cage must not interfere with clear observations of each animal.

The test substance is administered in a single dose to the animals by gavage using a stomach tube or a suitable intubation cannula.

Where necessary, the test substance is dissolved or suspended in a suitable vehicle. It is recommended that, wherever possible, the use of an aqueous solution/suspension be considered first, followed by consideration of a solution/emulsion in oil (e.g. corn oil) and then by possible solution in other vehicles. For non-aqueous vehicles the toxic characteristics of the vehicle should be known, and if not known should be determined before the test.

Animals should be fasted prior to dosing (e.g. overnight for the rat or 3-4 hours for the mouse); water should not be withheld.

1.4.2. *Test conditions*

1.4.2.1. Test animals

Unless there are contraindications, rat is the preferred rodent species. The females should be nulliparous and non-pregnant.

At the commencement of the study, the weight variation of animals should be minimal and not exceed ± 20 per cent of the mean weight for each sex.

1.4.2.2. Number and sex

Three animals of one sex are used for each step. Either sex can be used in the initial step.

1.4.2.3. Dose levels

The dose level to be used as the starting dose is selected from one of three fixed levels i.e. 25, 200 and 2 000 mg/kg body weight. The starting dose level should be that which is most likely to produce mortality in at least some of the dosed animals. One of the flow charts of the procedures described in Annex 1 may be used depending on the starting dose.

For selecting the sex and the starting dose, all the available information should be used, including information on structure activity relationships. When the information suggests that mortality is unlikely at the highest dose level (2 000 mg/kg body weight), then a limit test should be conducted. When there is no information on a substance to be tested, for animal welfare reasons it is recommended to use the starting dose of 200 mg/kg body weight.

Occasionally, it may be desirable to achieve a refinement of information further than would be possible after conducting the test with the three fixed dose levels of 25, 200 and 2 000 mg/kg body weight. In these cases further testing at additional fixed dose levels of 5, 50 or 500 mg/kg body weight may be considered.

Doses that are known to cause marked pain and distress, due to corrosive or severely irritant actions, need not be administered.

The time interval between treatment groups is determined by the onset, duration, and severity of toxic signs. Treatment of animals of the other sex, or at the next dose, should be delayed until one is confident of survival of the previously dosed animals.

1.4.2.4. Limit test

A limit test at one dose level of 2 000 mg/kg body weight may be carried out with three animals of each sex. If substance related mortality is produced, further testing at 200 mg/kg (or 500 mg/kg) body weight may need to be carried out.

1.4.2.5. Observation period

The animals should normally be observed for 14 days, except where animals need to be removed from the study and humanely killed for animal welfare reasons or are found dead. However, the duration of observation should not be fixed rigidly. It should be determined by the toxic reactions, time of onset and length of recovery period, and may thus be extended when considered necessary. The times at which signs of toxicity appear and disappear are important, especially if there is a tendency for toxic signs to be delayed. All observations are systematically recorded with individual records being maintained for each animal.

1.4.3. *Procedure*

Following the period of fasting the animals should be weighed prior to test substance administration. After the substance has been administered, food may be withheld for a further 3-4 hours. Where a dose is administered in fractions over a period, it may be necessary to provide the animals with food and water, depending on the length of the period.

The maximum volume of liquid that can be administered at one time depends on the size of the test animal. In rodents, the volume should not normally exceed 1 ml/100 g body weight; however, in the case of aqueous solutions 2 ml/100 g body weight can be considered. Variability in test volume should be minimised by adjusting the concentration to ensure a constant volume at all dose levels. If a single dose is not possible, the dose may be given in smaller fractions over a period not exceeding 24 hours.

Details of the test procedure are described in Annex 1.

1.4.3.1. General observations

Careful clinical observations should be made at least twice on the day of dosing, or more frequently when indicated by the response of the animals to the treatment, and at least once daily thereafter. Animals found in a moribund condition and animals showing severe pain and enduring signs of severe distress should be humanely killed. Animals killed for humane reasons are considered in the same way as animals that died on test.

When animals are killed for humane reasons or found dead, the time of death should be recorded as precisely as possible. Additional observations will be necessary if the animals continue to display signs of toxicity. Observations should include changes in skin and fur, eyes and mucous membranes, and also respiratory, circulatory, autonomic and central nervous systems, and somatomotor activity and behaviour pattern. Attention should be directed to observations of tremors, convulsions, salivation, diarrhoea, lethargy, sleep and coma.

All observations are systematically recorded with individual records being maintained for each animal.

1.4.3.2. Body weight

All animals should be weighed shortly before the test substance is administered, and at least weekly thereafter. Weight changes should be calculated and recorded. At the end of the test surviving animals are weighed before being humanely killed.

1.4.3.3. Gross necropsy

All test animals, including those which die during the test or are removed from the study, should be subjected to gross necropsy. All gross pathological changes should be recorded for each animal. Microscopic examination of organs showing evidence of gross pathology, in animals surviving 24 or more hours, may also be considered because it may yield useful information.

## 2. DATA

Individual animal data should be provided. Additionally, all data should be summarised in tabular form showing for each test group the number of animals used, the number of animals displaying signs of toxicity, the number of animals found dead during the test or killed for humane reasons, time of death of individual animals, a description and the time course of toxic effects and reversibility, and necropsy findings.

General guidance on the interpretation of the results for classification is given in Annex 2.

## 3. REPORTING

**Test report**

The test report shall, if possible, include the following information:

*Test animals:*

— species/strain;

— microbiological status of the animals, when known;

— number, age and sex of animals;

— source, housing conditions, diet, etc.;

— individual weights of animals at the start of the test, in weekly intervals thereafter and at the end of the test.

*Test conditions:*

— justification for choice of vehicle, if other than water;

— details of the administration of the test substance including dosing volumes and time of dosing;

— details of food and water quality (including type/source, water source);

— the rationale for the selection of the starting dose.

*Results:*

— tabulation of response data by sex and dose level for each animal (i.e. animals showing signs of toxicity including mortality, nature, severity and duration of effects);

— Time course of onset of signs of toxicity and whether these were reversible for each animal;

— necropsy findings and any histopathological findings for each animal, if available.

*Discussion of results.*

*Conclusions.*

4. **REFERENCES**

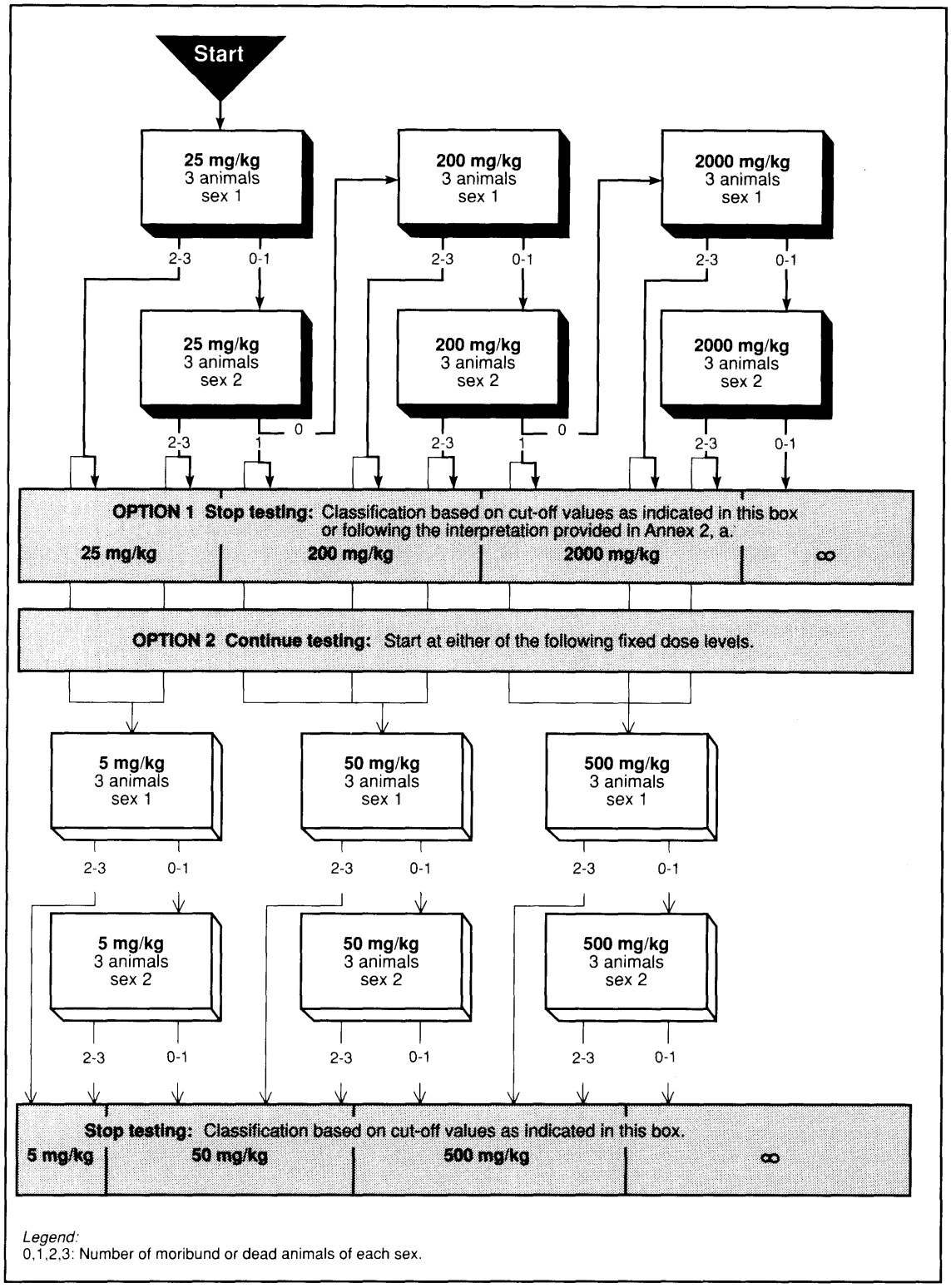
This method is analogous to OECD TG 423.

*ANNEX 1*

## TEST PROCEDURE

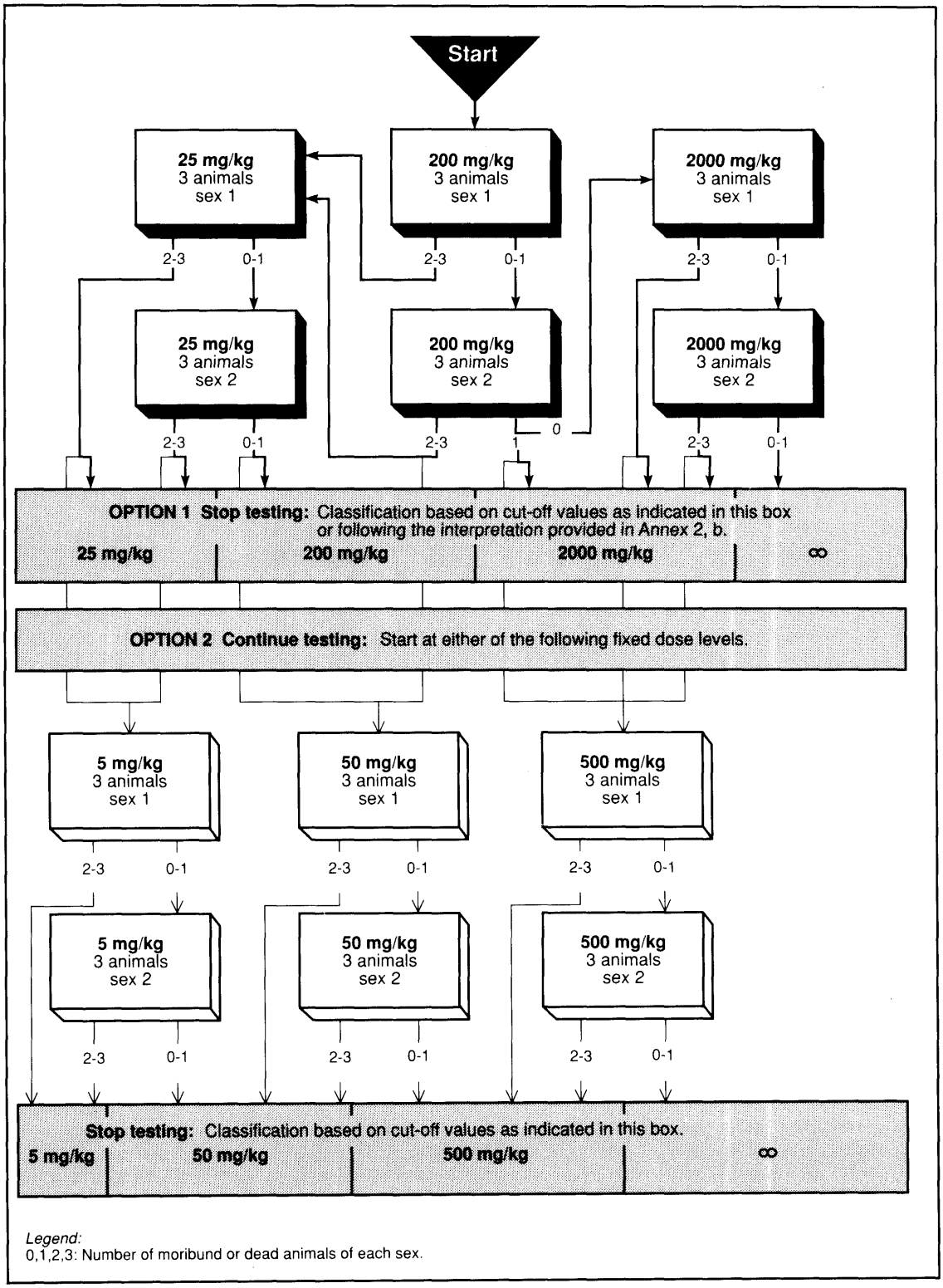
1. As indicated in point 1.4.2.3, the starting dose should be the one which is likely to produce mortality in at least some of the dosed animals. Information that could be used to select the starting dose include:
   - — data on physical chemical properties;
   - — structure-activity relationship;
   - — all data from other toxicity tests; and
   - — anticipated use of the test substance.
2. For each starting dose, the respective testing schemes, as included in this annex, outline the procedure to be followed. Depending on the number of humanely killed or dead animals the test procedure follows the indicated arrows.
3. When at a starting dose of 25 or 200 mg/kg body weight only one animal of the second sex dies, this would normally lead to no further testing. However, when no toxic signs are observed in the other five animals, during autopsy consideration should be given to the possibility that mortality may not have been substance related. In such a case, the test should be continued with dosing at the next higher level.
4. When at a dose of 2 000 mg/kg body weight, one animal per sex dies, the $LD_{50}$ value is expected to exceed 2 000 mg/kg body weight. However, because this is a borderline result, the response of the remaining two animals per sex should be carefully considered and the occurrence of distinct, marked toxic signs in these animals may well lead to classification corresponding to an $LD_{50}$ value of 2 000 mg/kg body weight or less, or would justify further testing at this same level.
5. The procedure allows for testing at three additional fixed doses (option 2). This option could either be used to select an alternative dose at a given decision point, or for further testing after having completed the actual test (option 1). The option 1, test procedure is indicated with bold arrows, whereas for the option 2 test procedure, thin arrows are used.

(a) **Test procedure with a starting dose of 25 mg/kg body weight**



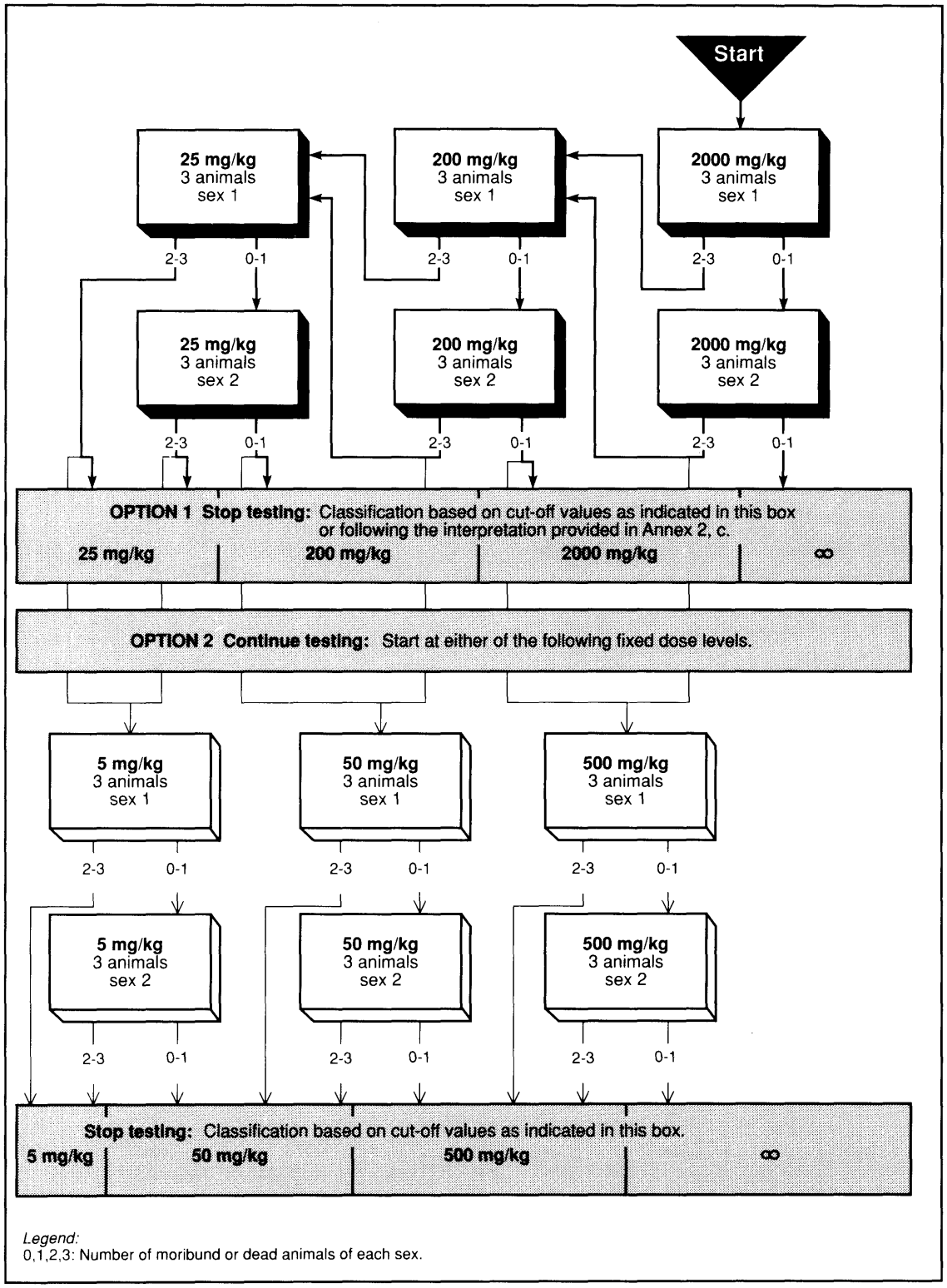

*Legend:*
0,1,2,3: Number of moribund or dead animals of each sex.

(b) **Test procedure with a starting dose of 200 mg/kg body weight**




*Legend:*
0,1,2,3: Number of moribund or dead animals of each sex.

(c) **Test procedure with a starting dose of 2 000 mg/kg body weight**




*Legend:*
0,1,2,3: Number of moribund or dead animals of each sex.

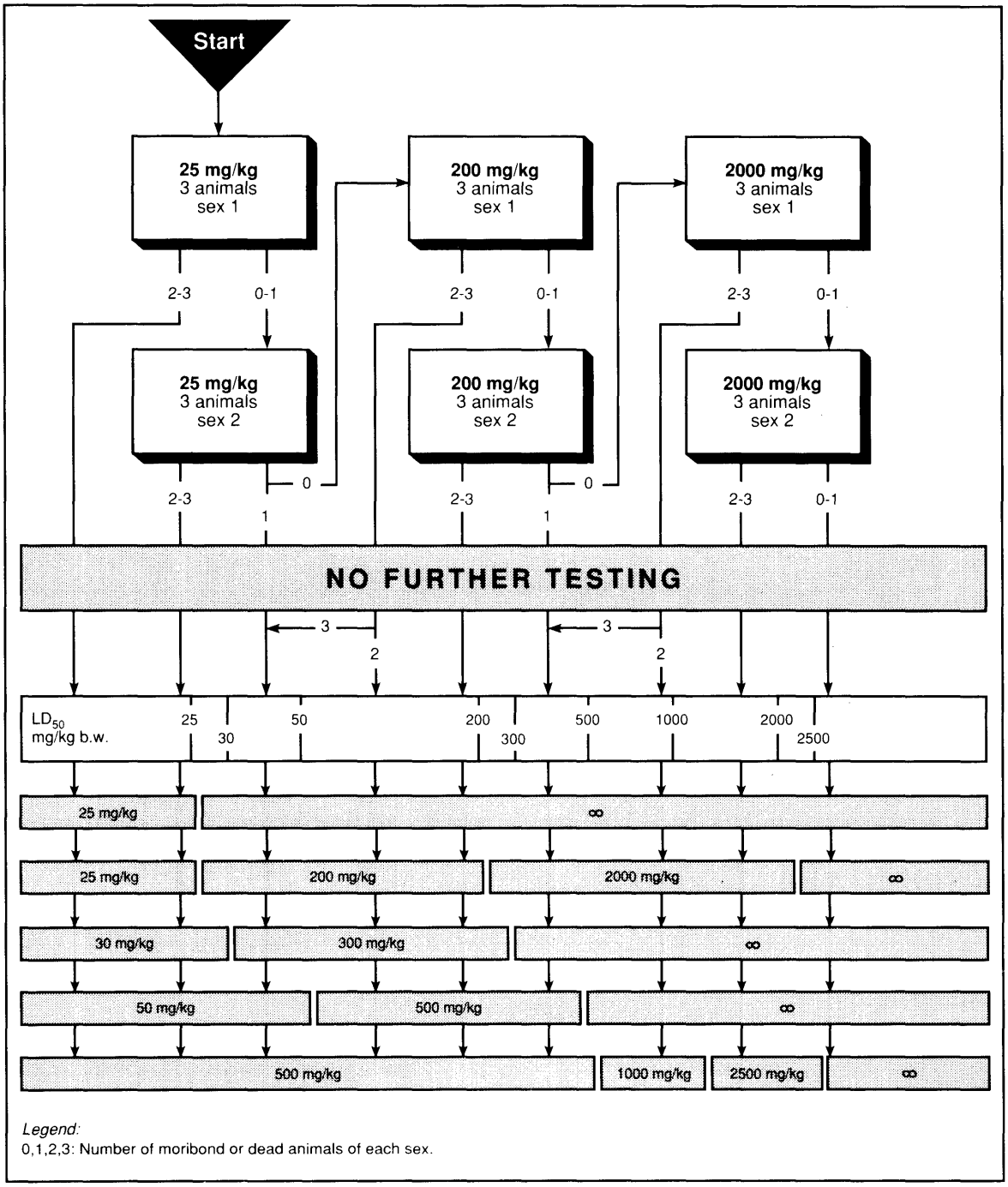
*ANNEX 2*

## INTERPRETATION OF RESULTS BASED ON OPTION 1 TESTING

The grey boxes below the "no further testing" box in the schemes of this annex, represent cut off values for classification. Following the test procedure as outlined in option 1, the appropriate arrow should be followed further downwards, until it reaches the grey box of concern.

(a) **Interpretation of results based on option 1 testing**

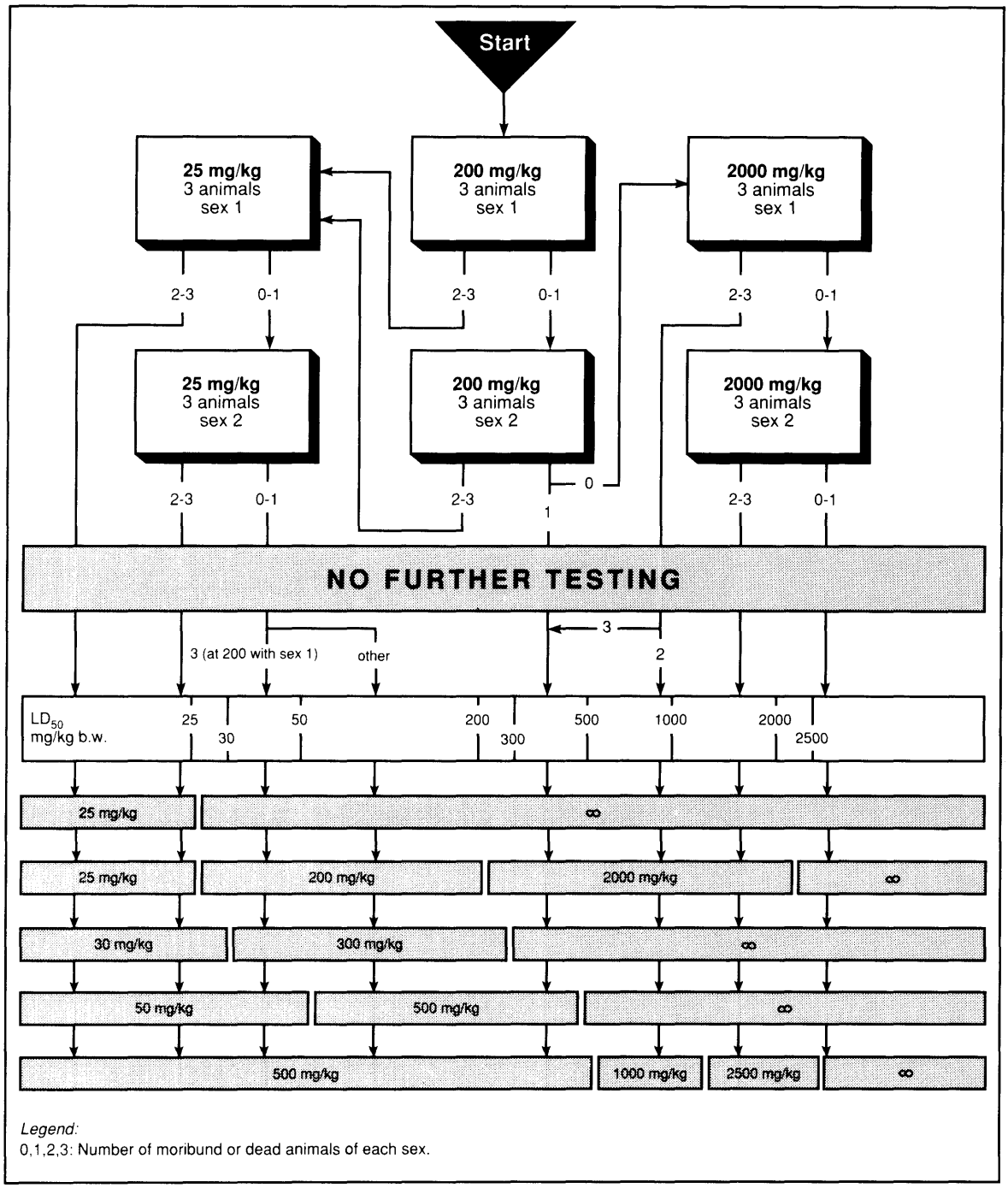
Starting dose: 25 mg/kg body weight




*Legend:*
0,1,2,3: Number of moribond or dead animals of each sex.

(b) **Interpretation of results based on option 1 testing**

Starting dose: 200 mg/kg body weight

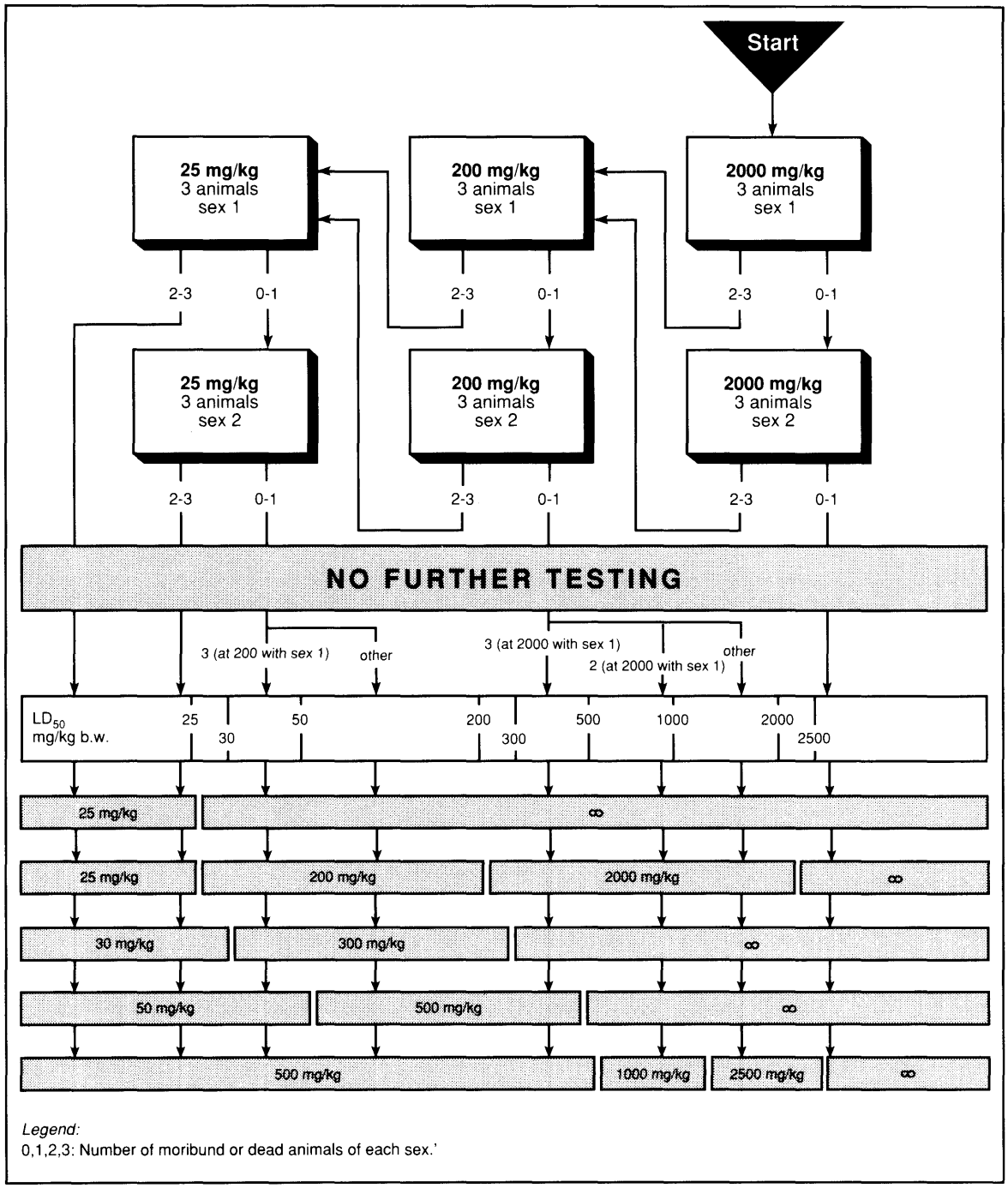



*Legend:*

0,1,2,3: Number of moribund or dead animals of each sex.

(c) **Interpretation of results based on option 1 testing**

Starting dose: 2 000 mg/kg body weight




*Legend:*
0,1,2,3: Number of moribund or dead animals of each sex.'

*ANNEX IV C*

'B.6 SKIN SENSITISATION

1. **METHOD**

1.1. **Introduction**

*Remarks:*

The sensitivity and ability of tests to detect potential human skin sensitisers are considered important in a classification system for toxicity relevant to public health.

There is no single test method which will adequately identify all substances with a potential for sensitising human skin and which is relevant for all substances.

Factors such as the physical characteristics of a substance, including its ability to penetrate the skin, must be considered in the selection of a test.

Two types of tests using guinea-pigs have been developed: the adjuvant-type tests, in which an allergic state is potentiated by dissolving or suspending the test substance in Freunds Complete Adjuvant (FCA), and the non-adjuvant tests.

Adjuvant-type tests are likely to be more accurate in predicting a probable skin sensitising effect of a substance in humans than those methods not employing Freunds Complete Adjuvant and are thus the preferred methods.

The Guinea-Pig Maximisation Test (GPMT) is a widely used adjuvant-type test. Although several other methods can be used to detect the potential of a substance to provoke skin sensitisation reaction, the GPMT is considered to be the preferred adjuvant technique.

With many chemical classes, non-adjuvant tests (the preferred one being the Buehler test) are considered to be less sensitive.

In certain cases there may be good reasons for choosing the Buehler test involving topical application rather than the intradermal injection used in the Guinea-Pig Maximisation Test. Scientific justification should be given when the Buehler test is used.

The Guinea-Pig Maximisation Test (GPMT) and the Buehler test are described in this method. Other methods may be used provided that they are well-validated and scientific justification is given.

If a positive result is seen in a recognised screening test, a test substance may be designated as a potential sensitiser, and it may not be necessary to conduct a further guinea pig test. However, if a negative result is seen in such a test, a guinea pig test must be conducted using the procedure described in this test method.

See also General Introduction Part B.

1.2. **Definitions**

*Skin sensitisation:* (allergic contact dermatitis) is an immunologically mediated cutaneous reaction to a substance. In the human, the responses may be characterised by pruritis, erythema, oedema, papules, vesicles, bullae or a combination of these. In other species the reactions may differ and only erythema and oedema may be seen.

*Induction exposure:* an experimental exposure of a subject to a test substance with the intention of inducing a hypersensitive state.

*Induction period:* a period of at least one week following an induction exposure during which a hypersensitive state may be developed.

*Challenge exposure:* an experimental exposure of a previously treated subject to a test substance following an induction period, to detemine if the subject reacts in a hypersensitive manner.

1.3. **Reference substances**

The sensitivity and reliability of the experimental technique used should be assessed every six months by use of substances which are known to have mild-to-moderate skin sensitisation properties.

In a properly conducted test, a response of at least 30 % in an adjuvant test and at least 15 % in a non-adjuvant test should be expected for mild/moderate sensitisers.

The following substances are preferred:

| CAS numbers | EINECS numbers | EINECS names | Common names |
|---|---|---|---|
| 101-86-0 | 202-983-3 | α-hexylcinnamaldehyde | α-hexylcinnamaldehyde |
| 149-30-4 | 205-736-8 | benzothiazole-2-thiol (mercapto-benzothiazole) | kaptax |
| 94-07-7 | 202-303-5 | benzocaine | nordcaine |

There may be circumstances where, given adequate justification other control substances meeting the above criteria may be used.

1.4. **Principle of the test method**

The test animals are initially exposed to the test substance by intradermal injections and/or epidermal application (induction exposure). Following a rest period of 10 to 14 days (induction period), during which an immune response may develop, the animals are exposed to a challenge dose. The extent and degree of skin reaction to the challenge exposure in the test animals is compared with that demonstrated by control animals which undergo sham treatment during induction and receive the challenge exposure.

1.5. **Description of the test methods**

If removal of the test substance is considered necessary, this should be achieved using water or an appropriate solvent without altering the existing response or the integrity of the epidermis.

1.5.1. *Guinea-Pig Maximisation Test (GPMT)*

1.5.1.1. Preparations

Healthy young adult albino guinea-pigs are acclimatised to the laboratory conditions for at least 5 days prior to the test. Before the test, animals are randomised and assigned to the treatment groups. Removal of hair is by clipping, shaving or possibly by chemical depilation, depending on the test method used. Care should be taken to avoid abrading the skin. The animals are weighed before the test commences and at the end of the test.

1.5.1.2. Test conditions

1.5.1.2.1. Test animals

Commonly used laboratory strains of albino guinea-pigs are used.

1.5.1.2.2. Number and sex

Male and/or female animals can be used. If females are used, they should be nulliparous and non-pregnant.

A minimum of 10 animals is used in the treatment group and at least 5 animals in the control group. When fewer than 20 test and 10 control guinea pigs have been used, and it is not possible to conclude that the test substance is a sensitiser, testing in additional animals to give a total of at least 20 test and 10 control animals is strongly recommended.

1.5.1.2.3. Dose levels

The concentration of the test substance used for each induction exposure should be well-tolerated systemically and should be the highest to cause mild-to-moderate skin irritation. The concentration used for the challenge exposure should be the highest non-irritant dose. If necessary, the appropriate concentrations can be determined from a pilot study using two or three animals. Consideration should be given to the use of FCA-treated animals for this purpose.

1.5.1.3. Procedure

1.5.1.3.1. Induction

Day 0-treated group

Three pairs of intradermal injections of 0.1 ml volume are given in the shoulder region which is leared of hair so that one of each pair lies on each side of the midline.

Injection 1: a 1:1 mixture (v/v) FCA/water or physiological saline

Injection 2: the test substance in an appropriate vehicle at the selected concentration

Injection 3: the test substance at the selected concentration formulated in a 1:1 mixture (v/v) FCA/water or physiological saline

In injection 3, water soluble substances are dissolved in the aqueous phase prior to mixing with FCA. Liposoluble or insoluble substances are suspended in FCA prior to combining with the aqueous phase. The final concentration of test substance shall be equal to that used in injection 2.

Injections 1 and 2 are given close to each other and nearest the head, while 3 is given towards the caudal part of the test area.

Day 0-control group

Three pairs of intradermal injections of 0.1 ml volume are given in the same sites as in the treated animals.

Injection 1: a 1:1 mixture (v/v) FCA/water or physiological saline

Injection 2: the undiluted vehicle

Injection 3: a 50 % w/v formulation of the vehicle in a 1:1 mixture (v/v) FCA/water or physiological saline.

Day 5-7-treated and control groups

Approximately twenty-four hours before the topical induction application, if the substance is not a skin irritant, the test area, after close-clipping and/or shaving is treated with 0.5 ml of 10 % sodium lauryl sulphate in vaseline, in order to create a local irritation.

Day 6-8-treated group

The test area is again cleared of hair. A filter paper (2 × 4 cm) is fully-loaded with test substance in a suitable vehicle and applied to the test area and held in contact by an occlusive dressing for 48 hours. The choice of the vehicle should be justified. Solids are finely pulverised and incorporated in a suitable vehicle. Liquids can be applied undiluted, if appropriate.

Day 6-8-control group

The test area is again cleared of hair. The vehicle only is applied in a similar manner to the test area and held in contact by an occlusive dressing for 48 hours.

1.5.1.3.2. Challenge

Day 20-22-treated and control groups

The flanks of treated and control animals are cleared of hair. A patch or chamber loaded with the test substance is applied to one flank of the animals and, when relevant, a patch or chamber loaded with the vehicle only may also be applied to the other flank. The patches are held in contact by an occlusive dressing for 24 hours.

1.5.1.3.3. Observation and Grading: treated and control groups

— approximately 21 hours after removing the patch the challenge area is cleaned and closely-clipped and/or shaved and depilated if necessary;

— approximately 3 hours later (approximately 48 hours from the start of the challenge application) the skin reaction is observed and recorded according to the grades shown in appendix;

— approximately 24 hours after this observation a second observation (72 hours) is made and once again recorded.

Blind reading of test and control animals is encouraged.

If it is necessary to clarify the results obtained in the first challenge, a second challenge (i.e. a rechallenge), where appropriate with a new control group, should be considered approximately one week after the first one. A rechallenge may also be performed on the original control group.

All skin reactions and any unusual findings, including systemic reactions, resulting from induction and challenge procedures should be observed and recorded according to the grading scale of Magnusson/Kligman (See appendix). Other procedures, e.g. histopathological examination, the measurement of skin fold thickness, may be carried out to clarify doubtful reactions.

1.5.2. *Buehler test*

1.5.2.1. Preparations

Healthy young adult albino guinea-pigs are acclimatised to the laboratory condition for at least 5 days prior to the test. Before the test, animals are randomised and assigned to the treatment groups. Removal of hair is by clipping, shaving or possibly by chemical depilation, depending on the test method used. Care should be taken to avoid abrading the skin. The animals are weighed before the test commences and at the end of the test.

1.5.2.2. Test conditions

1.5.2.2.1. Test animals

Commonly used laboratory strains of albino guinea-pigs are used.

1.5.2.2.2. Number and sex

Male and/or female animals can be used. If females are used, they should be nulliparous and non-pregnant.

A minimum of 20 animals is used in the treatment group and at least 10 animals in the control group.

1.5.2.2.3. Dose levels

The concentration of test substance used for each induction exposure should be the highest possible to produce a mild but not excessive irritation. The concentration used for the challenge exposure should be the highest non-irritating dose. If necessary, the appropriate concentrations can be determined from a pilot study using two or three animals.

For water soluble test materials, it is appropriate to use water or a dilute non-irritating solution of surfactant as the vehicle. For other test materials 80 % ethanol/water is preferred for induction and acetone for challenge.

1.5.2.3. Procedure

1.5.2.3.1. Induction

Day 0-treated group

One flank is cleared of hair (closely-clipped). The test patch system should be fully loaded with test substance in a suitable vehicle (the choice of the vehicle should be justified; liquid test substances can be applied undiluted, if appropriate).

The test patch system is applied to the test area and held in contact with the skin by an occlusive patch or chamber and a suitable dressing for 6 hours.

The test patch system must be occlusive. A cotton pad is appropriate and can be circular or square, but should approximate 4-6 $cm^2$. Restraint using an appropriate restrainer is preferred to assure occlusion. If wrapping is used, additional exposures may be required.

Day 0-control group

One flank is cleared of hair (closely-clipped). The vehicle only is applied in a similar manner to that used for the treated group. The test patch system is held in contact with the skin by an occlusive patch or chamber and a suitable dressing for 6 hours. If it can be demonstrated that a sham control group is not necessary, a naive control group may be used.

Day 6-8 and 13-15-treated and control group

The same application as on day 0 is carried out on the same test area (cleared of hair if necessary) of the same flank on day 6-8, and again on day 13-15.

1.5.2.3.2. Challenge

Day 27-29-treated and control group

The untreated flank of treated and control animals is cleared of hair (closely-clipped). An occlusive patch or chamber containing the appropriate amount of test substance is applied, at the maximum non-irritant concentration, to the posterior untreated flank of treated and control animals.

When relevant, an occlusive patch or chamber with vehicle only is also applied to the anterior untreated flank of both treated and control animals. The patches or chambers are held in contact by a suitable dressing for 6 hours.

1.5.2.3.3. Observation and grading

— approximately 21 hours after removing the patch the challenge area is cleared of hair;

— approximately three hours later (approximately 30 hours after application of the challenge patch) the skin reactions are observed and recorded according to the grades shown in the appendix.

— approximately 24 hours after the 30 hour observation (approximaely 54 hours after application of the challenge patch) skin reactions are again observed and recorded.

Blind reading of the test and control animals is encouraged.

If it is necessary to clarify the results obtained in the first challenge, a second challenge (i.e. a rechallenge), where appropriate with a new control group, should be considered approximately one week after the first one. A rechallenge may also be performed on the original control group.

All skin reactions and any unusual findings, including systemic reactions, resulting from induction and challenge procedures should be observed and recorded according to the Magnusson/Kligman grading scale (See appendix). Other procedures, e.g. histopathological examination, the measurement of skin fold thickness, may be carried out to clarify doubtful reactions.

## 2. DATA (GPMT AND BUEHLER)

Data should be summarised in tabular form showing for each animal the skin reactions at each observation.

3. **REPORTING (GPMT AND BUEHLER)**

If a screening assay is performed before the guinea pig test the description or reference of the test (e.g. Local Lymph Node Assay (LLNA), Mouse Ear Swelling Test (MEST)), including details of the procedure, must be given together with results obtained with the test and reference substances.

**Test report (GMPT and Buehler test)**

The test report shall, if possible, include the following information:

*Test animals:*

— strain of guinea-pig used;

— number, age and sex of animals;

— source, housing conditions, diet, etc.,

— individual weights of animals at the start of the test.

*Test conditions:*

— technique of patch site preparation;

— detail of patch materials used and patching technique;

— result of pilot study with conclusion on induction and challenge concentrations to be used in the test;

— details of test substance preparation, application and removal;

— justification for choice of vehicle;

— vehicle and test substance concentrations used for induction and challenge exposures and the total amount of substance applied for induction and challenge.

*Results:*

— a summary of the results of the latest sensitivity and reliability check (see 1.3) including information on substance, concentration and vehicle used;

— on each animal including grading system;

— narrative description of the nature and degree effects observed;

— any histopathological findings.

*Discussion of results.*

*Conclusions.*

4. **REFERENCES**

This method is analogous to OECD TG 406.

*Appendix*

TABLE:

**Magnusson/Kligman grading scale for the evaluation of challenge patch pest reactions**

0 = no visible change

1 = discrete or patchy erythema

2 = moderate and confluent erythema

3 = intense erythema and swelling'

*ANNEX IV D*

'B.7 REPEATED DOSE (28 DAYS) TOXICITY (ORAL)

1. **METHOD**

1.1. **Introduction**

See General Introduction Part B.

1.2. **Definitions**

See General Introduction Part B.

1.3. **Principle of the test method**

The test substance is orally administered daily in graduated doses to several groups of experimental animals, one dose level per group for a period of 28 days. During the period of administration the animals are observed closely, each day for signs of toxicity. Animals which die or are killed during the test are necropsied and at the conclusion of the test surviving animals are killed and necropsied.

This method places more emphasis on neurological effects as a specific endpoint, and the need for careful clinical observations of the animals, so as to obtain as much information as possible, is stressed. The method should identify chemicals with neurotoxic potential, which may warrant further indepth investigation of this aspect. In addition, the method may give an indication of immunological effects and reproductive organ toxicity.

1.4. **Description of the test method**

1.4.1. *Preparations*

Healthy young adult animals are randomly assigned to the control and treatment groups. Cages should be arranged in such a way that possible effects due to cage placement are minimized. The animals are identified uniquely and kept in their cages for at least five days prior to the start of the study to allow for acclimatisation to the laboratory conditions.

The test substance is administered by gavage or via the diet or drinking water. The method of oral administration is dependent on the purpose of the study, and the physical/chemical properties of the substance.

Where necessary, the test substance is dissolved or suspended in a suitable vehicle. It is recommended that, wherever possible, the use of an aqueous solution/suspension be considered first, followed by consideration of a solution/emulsion in oil (e.g. corn oil) and then by possible solution in other vehicles. For vehicles other than water the toxic characteristics of the vehicle must be known. The stability of the test substance in the vehicle should be determined.

1.4.2. *Test conditions*

1.4.2.1. Test animals

The preferred rodent species is the rat, although other rodent species may be used. Commonly used laboratory strains of young healthy adult animals should be employed. The females should be nulliparous and non-pregnant. Dosing should begin as soon as possible after weaning and, in any case, before the animals are nine weeks old.

At the commencement of the study the weight variation of animals used should be minimal and not exceed ± 20 % of the mean weight of each sex.

Where a repeated dose oral study is conducted as a preliminary to a long term study, preferably animals from the same strain and source should be used in both studies.

1.4.2.2. Number and sex

At least 10 animals (five female and five male) should be used at each dose level. If interim kills are planned, the number should be increased by the number of animals scheduled to be killed before the completion of the study.

In addition, a satellite group of 10 animals (five animals per sex) may be treated with the high dose level for 28 days and observed for reversibility, persistence, or delayed occurrence of toxic effects for 14 days post-treatment. A satellite group of 10 control animals (five animals per sex) is also used.

1.4.2.3. Dose levels

Generally, at least three test groups and a control group should be used. Except for treatment with the test substance, animals in the control group should be handled in an identical manner to the test group subjects. If a vehicle is used in administering the test substance, the control group should receive the vehicle in the highest volume used.

If from assessment of other data, no effects would be expected at a dose of 1 000 mg/kg bw/d, a limit test may be performed. If there are no suitable data available, a range finding study may be performed to aid the determination of the doses to be used.

Dose levels should be selected taking into account any existing toxicity and (toxico-) kinetic data available for the test substance or related materials. The highest dose level should be chosen with the aim of inducing toxic effects but not death or severe suffering. Thereafter, a descending sequence of dose levels should be selected with a view to demonstrating any dosage related response and no-observed-adverse effects at the lowest dose level (NOAEL). Two to four fold intervals are frequently optimal for setting the descending dose levels and addition of a fourth test group is often preferable to using very large intervals (e.g. more than a factor of 10) between dosages.

For substances administered via the diet or drinking water it is important to ensure that the quantities of the test substance involved do not interfere with normal nutrition or water balance. When the test substance is administered in the diet either a constant dietary concentration (ppm) or a constant dose level in terms of the animals' body weight may be used; the alternative used must be specified. For a substance administered by gavage, the dose should be given at similar times each day, and adjusted as necessary to maintain a constant dose level in terms of animal body weight.

Where a repeated dose study is used as a preliminary to a long term study, a similar diet should be used in both studies.

1.4.2.4. Limit test

If a test at one dose level of at least 1 000 mg/kg body weight/day or, for dietary or drinking water administration, an equivalent percentage in the diet or drinking water (based upon body weight determinations), using the procedures described for this study, produces no observable toxic effects and if toxicity would not be expected based upon data from structurally related substances, then a full study using three dose levels may not be considered necessary. The limit test applies except when human exposure indicates the need for a higher dose level to be used.

1.4.2.5. Observation period

The observation period should be 28 days. Animals in a satellite group scheduled for follow-up observations should be kept for at least a further 14 days without treatment to detect delayed occurrence, or persistence of, or recovery from toxic effects.

1.4.3. *Procedure*

The animals are dosed with the test substance daily seven days each week for a period of 28 days; use of a five-day per week dosing regime needs to be justified. When the test substance is administered by gavage, this should be done in a single dose to the animals using a stomach tube or a suitable intubation cannula. The maximum volume of liquid that can be administered at one time depends on the size of the test animal. The volume should not exceed 1 ml/100 g body weight, except in the case of aqueous solutions where 2 ml/100 g body weight may be used. Except for irritating or corrosive substances which will normally reveal exacerbated effects with higher concentrations, variability in test volume should be minimised by adjusting the concentration to ensure a constant volume at all dose levels.

1.4.3.1. General observations

General clinical observations should be made at least once a day, preferably at the same time(s) each day and considering the peak period of anticipated effects after dosing. The health condition of the animals should be recorded. At least twice daily, all animals are observed for morbidity and mortality. Moribund animals and animals in severe distress or pain should be removed when noticed, humanely killed and necropsied.

Once before the first exposure (to allow for within-subject comparisons), and at least once a week thereafter, detailed clinical observations should be made in all animals. These observations should be made outside the home cage in a standard arena and preferably at the same time, each time. They should be carefully recorded, preferably using scoring systems, explicitly defined by the testing laboratory. Effort should be made to ensure that variations in the test conditions are minimal and that observations are preferably conducted by observers unaware of the treatment. Signs noted should include but not be limited to, changes in skin, fur, eyes, mucous membranes, occurence of secretions and excretions and autonomic activity (e.g. lacrimation, piloerection, pupil size, unusual respiratory pattern). Changes in gait, posture and reponse to handling as well as the presence of clonic or tonic movements, stereotypes (e.g. excessive grooming, repetitive circling) or bizarre behaviour (e.g. self-mutilation, walking backwards) should also be recorded.

In the fourth exposure week sensory reactivity to stimuli of different types (e.g. auditory, visual and proprioceptive stimuli), assessment of grip strength and motor actitivity assessment should be conducted. Further details of the procedures that could be followed are given in the literature (see General Introduction Part B).

Functional observations conducted in the fourth exposure week may be omitted when the study is conducted as a preliminary study to a subsequent subchronic (90-day) study. In that case, the functional observations should be included in this follow-up study. On the other hand, the availability of data on functional observations from the repeated dose study may enhance the ability to select dose levels for a subsequent subchronic study.

Exceptionally, functional observations may also be omitted for groups that otherwise reveal signs of toxicity to an extent that would significantly interfere with the functional test performance.

1.4.3.2. Body weight and food/water consumption

All animals should be weighed at least once a week. Measurements of food and water consumption should be made at least weekly. If the test substance is administered via the drinking water, water consumption should also be measured at least weekly.

1.4.3.3. Haematology

The following haematological examinations should be made at the end of the test period: haematocrit, haemoglobin concentration, erythrocyte count, total an differential leucocyte count, platelet count and a measure of blood clotting time/potential.

Blood samples should be taken from a named site just prior to or as part of the procedure for killing the animals, and stored under appropriate conditions.

1.4.3.4. Clinical biochemistry

Clinical biochemistry determinations to investigate major toxic effects in tissues and, specifically, effects on kidney and liver, should be performed on blood samples obtained of all animals just prior to or as part of the procedure for killing the animals (apart from those found moribund and/or intercurrently killed). Overnight fasting of the animals prior to blood sampling is recommended (1). Investigations of plasma or serum shall include sodium, potassium, glucose, total cholesterol, urea, creatinine, total protein and albumin, at least two enzymes indicative of hepatocellular effects (such as alanine aminotransferase, aspartate aminotransferase, alkaline phosphatase, gamma glutamyl transpeptidase, and sorbitol dehydrogenase). Measurements of additional enzymes (of hepatic or other origin) and bile acids may provide useful information under certain circumstances

(1) For a number of measurements in serum and plasma, most notably for glucose, overnight fasting would be preferable. The major reason for this preference is that the increased variability which would inevitably result from non-fasting, would tend to mask more subtle effects and make interpretation difficult. On the other hand, however, overnight fasting may interfere with the general metabolism of the animals and, particularly in feeding studies, may disturb the daily exposure to the test substance. If overnight fasting is adopted, clinical biochemical determinations should be performed after the conduct of functional observations in week 4 of the study.

Optionally, the following urine analysis determinations could be performed during the last week of the study using timed urine volume collection; appearance, volume, osmolality or specific gravity, pH, protein, glucose and blood/blood cells.

In addition, studies to investigate serum markers of general tissue damage should be considered. Other determinations that should be carried out if the known properties of the test substance may, or are suspected to, affect related metabolic profiles include calcium, phosphate, fasting triglycerides, specific hormones, methaemoglobin and cholinesterase. These need to be identified for substances in certain classes or on a case-by-case basis.

Overall, there is a need for a flexible approach, depending on the species and the observed and/or expected effect with a given substance.

If historical baseline data are inadequate, consideration should be given to determination of haematological and clinical biochemistry variables before dosing commences.

1.4.3.5. Gross necropsy

All animals in the study shall be subjected to a full, detailed gross necropsy which includes careful examination of the external surface of the body, all orifices, and the cranial, thoracic and abdominal cavities and their contents. The liver, kidneys, adrenals, testes, epididymides, thymus, spleen, brain and heart of all animals should be trimmed of any adherent tissue, as appropriate, and their wet weight taken as soon as possible after dissection to avoid drying.

The following tissues should be preserved in the most appropriate fixation medium for both the type of tissue and the intended subsequent histopathological examination: all gross lesions, brain (representative regions including cerebrum, cerebellum and pons), spinal cord, stomach, small and large intestines (including Peyer's patches), liver, kidneys, adrenals, spleen, heart, thymus, thyroid, trachea and lungs (preserved by inflation with fixative and then immersion), gonads, accessory sex organs (e.g. uterus, prostate), urinary bladder, lymph nodes (preferably one lymph node covering the route of administration and another one distant from the route of administration to cover systemic effects), peripheral nerve (sciatic or tibial) preferably in close proximity to the muscle, and a section of bone marrow (or, alternatively, a fresh mounted bone marrow aspirate). The clinical and other findings may suggest the need to examine additional tissues. Also any organs considered likely to be target organs based on the known properties of the test substance should be preserved.

1.4.3.6. Histopathological examination

Full histopathology should be carried out on the preserved organs and tissues of all animals in the control and high dose groups. These examinations should be extended to animals of all other dosage groups, if treatment-related changes are observed in the high dose group.

All gross lesions shall be examined.

When a satellite group is used, histopathology should be performed on tissues and orans indentified as showing effects in the treated groups.

2. **DATA**

Individual data should be provided. Additionally, all data should be summarised in tabular form showing for each test group the number of animals at the start of the test, the number of animals found dead during the test or killed for humane reasons and the time of any death or humane kill, the number showing signs of toxicity, a description of the signs of toxicity observed, including time of onset, duration, and severity of any toxic effects, the number of animals showing lesions, the type of lesions and the percentage of animals displaying each type of lesion.

When possible, numerical results should be evaluated by an appropriate and generally acceptable statistical method. The statistical methods should be selected during the design of the study.

3. **REPORTING**

**Test report**

The test report shall, if possible, include the following information:

*Test animals:*

— species/strain used;

— number, age and sex of animals;

— source, housing conditions, diet, etc.;

— individual weights of animals at the start of the test in weekly intervals thereafter and at the end of the test

*Test conditions:*

— justification for choice of vehicle, if other than water;

— rationale for dose level selection;

— details of test substance formulation/diet preparation, achieved concentration, stability and homogeneity of the preparation;

— details of the administration of the test substance;

— conversion from diet/drinking water test substance concentration (ppm) to the actual dose (mg/kg body weight/day), if applicable;

— details of food and water quality

*Results:*

— body weight/body weight changes;

— food consumption, and water consumption, if applicable;

— toxic response data by sex and dose level, including signs of toxicity;

— nature, severity and duration of clinic observations (whether reversible or not);

— sensory activity, grip strength and motor activity assessments;

— haematological tests with relevant base-line values;

— clinical biochemistry tests with relevant base-line values;

— body weight at killing and organ weight data;

— necropsy findings;

— a detailed description of all histopathological findings

— absorption data if available;

— statistical treatment of results, where appropriate.

*Discussion of results.*

*Conclusions.*

4. **REFERENCES**

This method is analogous to OECD TG 407.'

*ANNEX IV E*

# 'B.37 DELAYED NEUROTOXICITY OF ORGANOPHOSPHORUS SUBSTANCES FOLLOWING ACUTE EXPOSURE

## 1. METHOD

### 1.1. Introduction

In the assessment and evaluation of the toxic effects of substances, it is important to consider the potential of certain classes of substances to cause specific types of neurotoxicity that might not be detected in other toxicity studies. Certain organophosphorus substances have been observed to cause delayed neurotoxicity and should be considered as candidates for evaluation.

*In vitro* screening tests could be employed to identify those substances which may cause delayed polyneuropathy; however, negative findings from *in vitro* studies do not provide evidence that the test substance is not a neurotoxicant.

See General Introduction Part B.

### 1.2. Definitions

*Organophosphorus substances* include uncharged organophosphorus esters, thioesters or anhydrides of organophosphoric, organophosphonic or organophosphoramidic acids or of related phosphorothioic, phosphonothioic or phosphorothioamidic acids, or other substances that may cause the delayed neurotoxicity sometimes seen in this class of substances.

*Delayed neurotoxicity* is a syndrome associated with prolonged delayed onset of ataxia, distal axonopathies in spinal cord and peripheral nerve, and inhibition and aging of neuropathy target esterase (NTE) in neural tissue.

### 1.3. Reference substances

A reference substance may be tested with a positive control group as a means of demonstrating that under the laboratory test conditions, the response of the tested species has not changed significantly.

An example of a widely used neurotoxicant is tri-o-tolyl phosphate (CAS 78-30-8, EINECS 201-103-5, CAS nomenclature: phosphoric acid, tris(2-methylphenyl)ester), also known as tris-o-cresylphosphate.

### 1.4. Principle of the test method

The test substance is administered orally in a single dose to domestic hens which have been protected from acute cholinergic effects, when appropriate. The animals are observed for 21 days for behavioural abnormalities, ataxia, and paralysis. Biochemical measurements, in particular neuropathy target esterase inhibition (NTE), are undertaken on hens randomly selected from each group, normally 24 and 48 hours after dosing. Twenty-one days after exposure, the remainder of the hens are killed and histopathological examination of selected neural tissues is undertaken.

### 1.5. Description of the test method

#### 1.5.1. *Preparations*

Healthy young adult hens free from interfering viral diseases and medication and without abnormalities of gait should be randomized and assigned to treatment and control groups and acclimatized to the laboratory conditions for at least 5 days prior to the start of the study.

Cages or enclosures which are large enough to permit free mobility of the hens, and easy observation of gait should be used.

Dosing with the test substance should normally be by the oral route using gavage, gelatine capsules, or a comparable method. Liquids may be given undiluted or dissolved in an appropriate vehicle such as corn oil; solids should be dissolved if possible since large doses of solids in gelatine capsules may not be absorbed efficiently. For non-aqueous vehicles the toxic characteristics of the vehicle should be known, and if not known should be determined before the test.

1.5.2. *Test conditions*

1.5.2.1. Test animals

The young adult domestic laying hen *(Gallus gallus domesticus)*, aged 8 to 12 months, is recommended. Standard size breeds and strains should be employed and the hens normally should have been reared under conditions which permitted free mobility.

1.5.2.2. Number and sex

In addition to the treatment group, both a vehicle control group and a positive control group should be used. The vehicle control group should be treated in a manner identical to the treatment group, except that administration of the test substance is omitted.

Sufficient number of hens should be utilized in each group of birds so that at least six birds can be killed for biochemical determination (three at each of two time points) and six can survive the 21 day observation period for pathology.

The positive control group may be run concurrently or be a recent historical control group. It should contain at least six hens, treated with a known delayed neurotoxicant, three hens for biochemistry and three hens for pathology. Periodic updating of historical data is recommended. New positive control data should be developed when some essential element (e.g. strain, feed, housing conditions) of the conduct of the test has been changed by the performing laboratory.

1.5.2.3. Dose levels

A preliminary study using an appropriate number of hens and dose levels groups should be performed to establish the level to be used in the main study. Some lethality is typically necessary in this preliminary study to define an adequate main study dose. However, to prevent death due to acute cholinergic effects, atropine or another protective agent, known to not interfere with delayed neurotoxic responses, may be used. A variety of test methods may be used to estimate the maximum non-lethal dose of test substances (See method B.1bis). Historical data in the hen or other toxicological information may also be helpful in dose selection.

The dose level of the test substance in the main study should be as high as possible taking into account the results of the preliminary dose selection study and the upper limit dose of 2,000 mg/kg body weight. Any mortality which might occur should not interfere with the survival of sufficient animals for biochemistry (six) and histology (six) at 21 days. Atropine or another protective agent, known to not interfere with delayed neurotoxic responses, should be used to prevent death due to acute cholinergic effects.

1.5.2.4. Limit test

If a test at a dose level of at least 2,000 mg/kg body weight/day, using the procedures described for this study, produces no observable toxic effects and if toxicity would not be expected based upon data from structurally related substances, then a study using a higher dose may not be considered necessary. The limit test applies except when human exposure indicates the need for a higher dose level to be used.

1.5.2.5. Observation period

Observation period should be 21 days.

1.5.3. *Procedure*

After administration of a protective agent to prevent death due to acute cholinergic effect, the test substance is administered in a single dose.

1.5.3.1. General observation

Observations should start immediately after exposure. All hens should be carefully observed several times during the first 2 days and thereafter at least once daily for a period of 21 days or until scheduled kill. All signs of toxicity should be recorded, including the time of onset, type, severity and duration of behavioural abnormalities. Ataxia should be measured on an ordinal grading scale consisting of at least four levels, and paralysis should be noted. At least twice a week the hens selected for pathology should be taken outside the cages and subjected to a period of forced motor activity, such as ladder climbing, in order to facilitate the observation of minimal toxic effects. Moribund animals and animals in severe distress or pain should be removed when noticed, humanely killed and necropsied.

1.5.3.2. Body weight

All hens should be weighed just prior to administration of the test substance and at least once a week thereafter.

1.5.3.3. Biochemistry

Six hens randomly selected from each of the treatment and vehicle control groups, and three hens from the positive control group (when this group is run concurrently), should be killed within a few days after dosing, and the brain and lumbar spinal cord prepared and assayed for neuropathy target esterase inhibition activity. In addition, it may also be useful to prepare and assay sciatic nerve tissue for neuropathy target esterase inhibition activity. Normally, three birds of the control and each treatment group are killed after 24 hours and three at 48 hours, whereas the three hens of the positive controls should be killed at 24 hours. If observation of clinical signs of intoxication (this can often be assessed by observation of the time of onset of cholinergic signs) indicates that the toxic agent may be disposed of very slowly then it may be preferable to sample tissue from three birds at each of two times between 24 and as late as 72 hours after dosing.

Analyses of acetylcholinesterase (AChE) may also be performed on these samples, if deemed appropriate. However, spontaneous reactivation of AChE may occur *in vivo,* and so lead to underestimation of the potency of the substance as an AChE inhibitor.

1.5.3.4. Gross necropsy

Gross necropsy of all animals (scheduled killed and killed when moribund) should include observation of the appearance of the brain and spinal cord.

1.5.3.5. Histopathological examination

Neural tissue from animals surviving the observation period and not used for biochemical studies should be subjected to microscopic examination. Tissues should be fixed *in situ,* using perfusion techniques. Sections should include cerebellum (mid-longitudinal level), medulla oblongata, spinal cord, and peripheral nerves. The spinal cord sections should be taken from the upper cervical segment, the mid-thoracic and the lumbo-sacral regions. Sections of the distal region of the tibial nerve and its branches to the gastrocnemial muscle and of the sciatic nerve should be taken. Sections should be stained with appropriate myelin and axon-specific stains.

## 2. DATA

Negative results on the endpoints selected in this method (biochemistry, histopathology and behavioural observation) would not normally require further testing for delayed neurotoxicity. Equivocal or inconclusive results for these endpoints may require further evaluation.

Individual data should be provided. Additionally, all data should be summarized in tabular form, showing for each test group the number of animals at the start of the test, the number of animals showing lesions, behavioural or biochemical effects, the types and severity of these lesions or effects, and the percentage of animals displaying each type and severity of lesion or effect.

The findings of this study should be evaluated in terms of the incidence, severity, and correlation of behavioural, biochemical and histopathological effects and any other observed effects in the treated and control groups.

Numerical results should be evaluated by appropriate and generally acceptable statistical methods. The statistical methods used should be selected during the design of the study.

3. **REPORTING**

**Test report**

The test report shall, if possible, include the following information:

*Test animals:*

— strain used;

— number and age of animals;

— source, housing conditions, etc.;

— individual weights of animals at the start of the test.

*Test conditions:*

— details of test substance preparation, stability and homogeneity; where appropriate;

— justification for choice of vehicle;

— details of the administration of the test substance;

— details of food and water quality;

— rationale for dose selection;

— specification of doses administered, including details of the vehicle, volume and physical form of the material administered;

— identity and details of the administration of any protective agent.

*Results:*

— body weight data;

— toxic response data by group, including mortality;

— nature, severity and duration of clinic observations (whether reversible or not);

— a detailed description of biochemical methods and findings;

— necropsy findings;

— a detailed description of all histopathological findings;

— statistical treatment of results, where appropriate.

*Discussion of results.*

*Conclusions.*

4. **REFERENCES**

This method is analogous to OECD TG 418.

# B.38 DELAYED NEUROTOXICITY OF ORGANOPHOSPHORUS SUBSTANCES 28 DAY REPEATED DOSE STUDY

## 1. METHOD

### 1.1. Introduction

In the assessment and evaluation of the toxic effects of substances, it is important to consider the potential of certain classes of substances to cause specific types of neurotoxicity that might not be detected in other toxicity studies. Certain organophosphorus substances have been observed to cause delayed neurotoxicity and should be considered as candidates for evaluation.

*In vitro* screening tests could be employed to identify those substances which may cause delayed polyneuropathy; however, negative findings from *in vitro* studies do not provide evidence that the test substance is not a neurotoxicant.

This 28-day delayed neurotoxicity test provides information on possible health hazards likely to arise from repeated exposures over a limited period of time. It will provide information on dose response and can provide an estimate of a no-observed-adverse effect level which can be of use for establishing safety criteria for exposure.

See also General Introduction Part B.

### 1.2. Definitions

*Organophosphorus substances* include uncharged organophosphorus esters, thioesters or anhydrides of organophosphoric, organophosphonic or organophosphoramidic acids or of related phosphorothioic, phosphonothioic or phosphorothioamidic acids or other substances that may cause the delayed neurotoxicity sometimes seen in this class of substances.

*Delayed neurotoxicity* is a syndrome associated with prolonged delayed onset of ataxia, distal axonopathies in spinal cord and peripheral nerve, and inhibition and ageing of neuropathy target esterase (NTE) in neural tissue.

### 1.3. Principle of the test method

Daily doses of the test substance are administered orally to domestic hens for 28 days. The animals are observed at least daily for behavioural abnormalities, ataxia and paralysis until 14 days after the last dose: Biochemical measurements, in particular neuropathy target esterase inhibition (NTE), are undertaken, on hens randomly selected from each group, normally 24 and 48 hours after the last dose. Two weeks after the last dose, the remainder of the hens are killed and histopathological examination of selected neural tissues is undertaken.

### 1.4. Description of the test method

#### 1.4.1. *Preparations*

Healthy young adult hens free from interfering viral diseases and medication, and without abnormalities of gait should be randomized and assigned to treatment and control groups and acclimatized to the laboratory conditions for at least 5 days prior to the start of the study.

Cages or enclosures which are large enough to permit free mobility of the hens and easy observation of gait should be used.

Oral dosing each day, 7 days per week, should be carried out, preferably by gavage or administration of gelatine capsules. Liquids may be given undiluted or dissolved in an appropriate vehicle such as corn oil; solids should be dissolved if possible since large doses of solids in gelatine capsules may not be absorbed efficiently. For non-aqueous vehicles the toxic characteristics of the vehicle should be known, and if not known should be determined before the test.

#### 1.4.2. *Test conditions*

##### 1.4.2.1. Test animals

The young adult domestic laying hen *(Gallus gallus domesticus)*, aged 8 to 12 months, is recommended. Standard size, breeds and strains should be employed and the hens normally should have been reared under conditions with permitted free mobility.

1.4.2.2. Number and sex

Generally at least three treatment groups and a vehicle control group should be used. The vehicle control group should be treated in a manner identical to the treatment group, except that administration of the test substance is omitted.

Sufficient number of hens should be utilized in each group of birds so that at least six birds can be killed for biochemical determinations (three at each of two timepoints) and six birds can survive the 14-day post-treatment observation period for pathology.

1.4.2.3. Dose levels

Dose levels should be selected taking into account three results from an acute test on delayed neurotoxicity and any other existing toxicity or kinetic data available for the test compound. The highest dose level should be chosen with the aim of inducing toxic effects, preferably delayed neurotoxicity, but not death nor obvious suffering. Thereafter, a descending sequence of dose levels should be selected with a view to demonstrate any dose-related response and no-observed-adverse effects at the lowest dose level.

1.4.2.4. Limit test

If a test at a dose level of at least 1000 mg/kg body weight/day, using the procedures described for this study, produces no observable toxic effects and if toxicity would not be expected based upon data from structurally related substances, then a study using a higher dose may not be considered necessary. The limit test applies except when expected human exposure indicates the need for a higher dose level to be used.

1.4.2.5. Observation period

All the animals should be observed at least daily during the exposure period and 14 days after, unless scheduled necropsy.

1.4.3. *Procedure*

Animals are dosed with the test substance on seven days per week for a period of 28 days

1.4.3.1. General observations

Observations should start immediately after treatment begins. All hens should be carefully observed at least once daily on each of the 28 days of treatment, and for 14 days after dosing or until scheduled kill. All signs of toxicity should be recorded including their time of onset, type, severity and duration. Observations should include, but not be limited to, behavioural abnormalities. Ataxia should be measured on an ordinal grading scale consisting of at least four levels, and paralysis should be noted. At least twice a week the hens should be taken outside the cages and subjected to a period of forced motor activity, such as ladder climbing, in order to facilitate the observation of minimal toxic effects. Moribund animals in severe distress or pain should be removed when noticed, humanely killed and necropsied.

1.4.3.2. Body weight

All hens should be weighed just prior to the first administration of the test substance and at least once a week thereafter.

1.4.3.3. Biochemistry

Six hens randomly selected from each of the treatment and vehicle control groups should be killed within a few days after the last dose, and the brain and lumbar spinal cord prepared and assayed for neuropathy target esterase (NTE) inhibition activity. In addition, it may also be useful to prepare and assay sciatic nerve tissue for neuropathy target esterase (NTE) inhibition activity. Normally, three birds of the control and each treatment group are killed after 24 hours and three at 48 hours after the last dose. If data from the acute study or other studies (e.g. toxicokinetics) indicate that other times of killing after final dosing are preferable then these times should be used and the rationale documented.

Analyses of acetylcholinesterase (AChE) may also be performed on these samples, if deemed appropriate. However, spontaneous reactivation of AChE may occur *in vivo,* and so lead to underestimation of the potency of the substance as an AChE inhibitor.

1.4.3.4. Gross necropsy

Gross necropsy of all animals (scheduled killed and killed when moribund) should include observation of the appearance of the brain and spinal cord.

1.4.3.5. Histopathological examination

Neural tissue from animals surviving the observation period and not used for biochemical studies should be subjected to microscopic examination. Tissues should be fixed *in situ,* using perfusion techniques. Sections should include cerebellum (mid longitudinal level), medulla oblongata, spinal cord and peripheral nerves. The spinal cord sections should be taken from the upper cervical segment, the mid-thoracic and the lumbo-sacral regions. Sections of the distal region of the tibial nerve and its branches to the gastrocnemial muscle and of the sciatic nerve should be taken. Sections should be stained with appropriate myelin and axon-specific stains. Initially, microscopic examination should be carried out on the preserved tissues of all animals in the control and high dose group. When there is evidence of effects in the high dose group, microscopic examination should also be carried out in hens from the intermediate and low dose groups.

## 2. DATA

Negative results on the endpoints selected in this method (biochemistry, histopathology and behavioural observation) would not normally require further testing for delayed neurotoxicity. Equivocal or inconclusive results for these endpoints may require further evaluation.

Individual data should be provided. Additionally, all data should be summarized in tabular form, showing for each test group the number of animals at the start of the test, the number of animals showing lesions, behavioural or biochemical effects, the types and severity of these lesions or effects, and the percentage of animals displaying each type and severity of lesion or effect.

The findings of this study should be evaluated in terms of the incidence, severity, and correlation of behavioural, biochemical and histopathological effects and any other observed effects in each of the treated and control groups.

Numerical results should be evaluated by appropriate and generally acceptable statistical methods. The statistical methods should be selected during the design of the study.

## 3. REPORTING

**Test report**

The test report shall, if possible, include the following information:

*Test animals:*

— strain used;

— number and age of animals;

— source, housing conditions, etc.;

— individual weights of animals at the start of the test.

*Test conditions:*

— details of test substance preparation, stability and homogeneity, where appropriate;

— justification for choice of vehicle;

— details of the administration of the test substance;

— details of food and water quality;

— rationale for dose selection;

— specification of doses administered, including details of the vehicle, volume and physical form of the material administered;

— rationale for choosing other times for biochemical determination, if other than 24 and 48 h.

*Results:*

— body weight data;

— toxic response data by dose level, including mortality;

— no-observed adverse effect level;

— nature, severity and duration of clinic observations (whether reversible or not);

— a detailed description of biochemical methods and findings;

— necropsy findings;

— a detailed description of all histopathological findings;

— statistical treatment of results, where appropriate.

*Discussion of results.*

*Conclusions.*

4. **REFERENCES**

This method is analogous to OECD TG 419'

*ANNEX V*

A. Sections 8 and 9 of the 'Contents' of the Annex are modified as follows:

'8. SPECIAL CASES: substances

8.1. Mobile gas containers

8.2. Gas containers intended for propane, butane or liquefied petroleum gas (LPG)

8.3. Metals in massive form

8.4. Substances classified with R65

9. SPECIAL CASES: preparations

9.1. Gaseous preparations (gas mixtures)

9.2. Gas containers intended for preparations containing stenched propane, butane or liquefied petroleum gas (LPG)

9.3. Alloys, preparations containing polymers, preparations containing elastomers

9.4. Preparations classified with R65

9.5. Organic peroxides'

B. The following text is inserted in section 3.2.3 after the criteria for R20 'Harmful by inhalation':

'R65 Harmful: may cause lung damage if swallowed

Liquid substances and preparations presenting an aspiration hazard in humans because of their low viscosity:

(a) For substances and preparations containing aliphatic, alicyclic and aromatic hydrocarbons in a total concentration equal to or greater than 10 % and having either

— a flow time of less than 30 sec. in a 3 mm ISO cup according to EN 535, or

— a kinematic viscosity measured by a calibrated glass capillary viscometer in accordance with ISO 3104/3105 of less than $7 \times 10^{-6}$ m²/sec at 40 °C, or

— a kinematic viscosity derived from measurements of rotational viscometry in accordance with ISO 3219 of less than $7 \times 10^{-6}$ m²/sec at 40 °C.

Note that substances and preparations meeting these criteria need not be classified if they have a mean surface tension greater than 25mN/m at 40 °C.

(b) For other substances and preparations, not subject to the above criteria, based on practical experience in humans.'

C. The text of section 3.2.6.3 is replaced by the following text:

'3.2.6.3. *Respiratory system irritation*

The following risk phrase shall be assigned in accordance with the criteria given:

R37 Irritating to respiratory system

Substances and preparations which cause serious irritation to the respiratory system based on:

— pratical observation in humans

— positive results from appropriate animal tests

Comments regarding the use of R37

In interpreting practical observations in humans, care should be taken to distinguish between effects which lead to classification with R48 (see section 3.2.4) from those leading to classification with R37. Conditions normally leading to classification with R37 are reversible and usually limited to the upper airways.

Positive results from appropriate animal tests may include data obtained in a general toxicity test, including histopathological data from the respiratory system. Data from the measurement of experimental bradypnea may also be used to assess airway irritation.'

D. The text of section 3.2.7 Sensitisation is replaced by the following text:

'3.2.7. Sensitisation

3.2.7.1. *Sensitisation by inhalation*

Substances and preparations shall be classified as sensitising and assigned the symbol "Xn", the indication of danger "Harmful", and the risk phrase R42 in accordance with the criteria given below:

R42 May cause sensitisation by inhalation

— if there is evidence that the substance or preparation can induce specific respiratory hypersensitivity

— where there are positive results from appropriate animal tests

— if the substance is an isocyanate, unless there is evidence that the substance does not cause respiratory hypersensitivity

Comments regarding the use of R42

Human evidence

Evidence that the substance can induce specific respiratory hypersensitivity will normally be based on human experience. In this context hypersensitivity is normally seen as asthma, but other hyerpsensitivity reactions such as rhinitis and alveolitis are also considered. The condition will have the clinical character of an allergic reaction. However, immunological mechanisms do not have to be demonstrated.

When considering the evidence from human exposure, it is necessary for a decision on classification to take into account in addition to the evidence from the cases:

— the size of the population exposed

— the extent of exposure

The evidence referred to above could be

— clinical history and data from appropriate lung function tests related to exposure to the substance, confirmed by other supportive evidence which may include:

  — a chemical structure related to substances known to cause respiratory hypersensitivity

  — in vivo immunological test (e.g. skin prick test)

  — in vitro immunological test (e.g. serological analysis)

  — studies that may indicate other specific but non-immunological mechanisms of action, e.g. repeated low-level irritation, pharmacologically mediated effects

  — data from a positive bronchial challenge test with the substance conducted according to accepted guidelines for the determination of a specific hypersensitivity reaction

Clinical history should include both medical and occupational history to determine a relationship between exposure to a specific substance and development of respiratory hypersensitivity. Relevant information includes aggravating factors both in the home and workplace, the onset and progress of the disease, family history and medical history of the patient in question. The medical history should also include a note of other allergic or airway disorders from childhood, and smoking history.

The results of positive bronchial challenge tests are considered to provide sufficient evidence for classification on their own. It is however recognized that in practice many of the examinations listed above will already have been carried out.

Substances that elicit symptoms of asthma by irritation only in people with bronchial hyperreactivity should not be assigned R42.

Animal studies

Data from tests which may be indicative of the potential of a substance to cause sensitisation by inhalation in humans may include:

— IgE measurements (e.g. in mice)

— specific pulmonary responses in guinea pigs

3.2.7.2. *Sensitisation by skin contact*

Substances and preparations shall be classified as sensitising and assigned the symbol "Xi", the indication of danger "Irritant", and the risk phrase R43 in accordance with the criteria given below:

R43 May cause sensitisation by skin contact

— if practical experience shows the substance or preparation to be capable of inducing sensitisation by skin contact in a substantial number of persons

— where there are positive results from an appropriate animal test

Comments regarding the use of R43

Human evidence

The following evidence (practical experience) is sufficient to classify a substance with R43:

— Positive data from appropriate patch testing, normally in more than one dermatological clinic, or

— Epidemiological studies showing allergic contact dermaitis caused by the substance. Situations in which a high proportion of those exposed exhibit characteristic symptoms are to be looked at with special concern, even if the number of cases is small, or

— Positive data from experimental studies in man (see also 3.1.1).

The following is sufficient to classify a substance with R43 when there is supportive evidence:

— Isolated episodes of allergic contact dermatitis, or

— Epidemiological studies where chance, bias or confounders have not been ruled out fully with reasonable confidence.

Supportive evidence may include:

— data from animal tests performed according to existing guidelines, with a result that does not meet the criteria given in the section on animal studies but is sufficiently close to the limit to be considered significant, or

— data from non-standard methods, or

— appropriate structure-activity relationships.

Animal studies

Positive results from appropriate animal tests are:

In the case of the adjuvant type test method for skin sensitization detailed in Annex V or in the case of other adjuvant-type test methods, a response of at least 30 % of the animals is considered as positive. For any other test method a response of at least 15 % of the animals is considered positive.

3.2.7.3. *Immunological contact urticaria*

Some substances which meet the criteria for R42 may in addition cause immunological contact urticaria. In these cases, information concerning contact urticaria should be included by the use of appropriate S-phrases, usually S24 and S36/37, and in the Safety Data Sheet.

For substances which produce signs of immunological contact urticaria which do not fulfil the criteria for R42, consideration should be given to classification with R43.

There is no recognised animal model available to identify substances which cause immunological contact urticaria. Therefore, classification will normally be based on human evidence which will be similar to that for skin sensitisation (R43).

3.2.7.4. Note that if the symbol "Xn" and the indication of danger "Harmful" are assigned, the symbol "Xi" and indication of danger "Irritant" are optional.'

E. The text of the criteria for S62 in section 6 is replaced by the following:

'S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label

— Applicability:

— substances and preparations classified as harmful with R65 in accordance with the criteria in section 3.2.3,

— not applicable to substances or preparations which are placed on the market in aerosol containers (or in containers fitted with a sealed spray attachment), see sections 8 and 9.

— Criteria for use:

— *obligatory* for substances and preparations mentioned above if sold to, or likely to be used by, the general public,

— recommended for the substances and preparations mentioned above when used in industry.'

F. The following section is inserted in Section 8:

'8.2. **Gas containers intended for propane, butane or liquefied petroleum gas (LPG)**

These substances are classified in Annex I. Although classified in accordance with Article 2, they do not present a danger to human health when they are placed on the market in closed refillable cylindes or in non-refillable cartridges within the scope of EN 417 as fuel gases which are only released for combustion.

These cylinders or cartridges must be labelled with the appropriate symbol and the R- and S-phrases concerning flammability. No information concerning the effects on human health is required on the label. However, the information concerning effects on human health which should have appeared on the label shall be transmitted to the professional user by the person responsible for placing the substance on the market in the format foreseen in Article 27 of the Directive. For the consumer, sufficient information shall be transmitted to enable them to take all necessary measures for health and safety as foreseen in Article 1 paragraph 3 of Directive 91/155/EEC, as modified by Directive 93/112/EEC.'

G. The heading to 'Section 8.2 Metals in massive form' is replaced by:

'8.3. **Metals in massive form'**

H. The following section is inserted in Section 8:

'8.4. **Substances classified with R65**

Substances classified as harmful on the basis of an aspiration hazard need not be labelled as harmful with R56 when placed on the market in aerosol containers or in containers fitted with a sealed spray attachment.'

I. The text of Section 9.1.3 is replaced by the following text:

'9.1.3. Labelling

For mobile gas containers the requirements concerning labelling are considered to be satisfied when they are in agreement with Article 8 (5) (b) of Directive 88/379/EEC.

However, by way of derogation from Articles 8 (1) and (2), for gas containers with a water capacity of less than or equal to 150 litres, the format and dimensions of the label can follow the prescriptions of the ISO Standard 7225. In this case, the label can bear the generic name or industrial/commercial name of the preparation provided that the dangerous component substances of the preparation are shown on the body of the gas container in a clear and indelible way.

The information specified in Article 7 may be provided on a durable information disc or label held captive on the containers.'

J. The following section is inserted in Section 9:

'9.2. **Gas containers intended for preparations containing stenched propane, butane or liquefied petroleum gas (LPG)**

Propane, butane and liquefied petroleum gas are classified in Annex I. Although preparations containing these substances are classified in accordance with Article 3 of Directive 88/379/EEC, they do not present a danger to human health when they are placed on the market in closed refillable cylinders or in non-refillable cartridges within the scope on EN 417 as fuel gases which are only released for combustion.

These cylinders and cartridges must be labelled with the appropriate symbol and the R- and S-phrases concerning flammability. No information concerning the effects on human health is required on the label. However, the information concerning effects on human health which should have appeared on the label shall be transmitted to the professional user by the person responsible for placing the substance on the market in the format foreseen in Article 10 of Directive 88/379/EEC. For the consumer, sufficient information shall be transmitted to enable them to take all necessary measures for health and safety as foreseen in Article 1 paragraph 3 of Directive 91/155/EEC.'

K. The heading of 'Section 9.2 Alloys, preparations containing polymers, preparations containing elastomers' is replaced by:

'9.3. **Alloys, preparations containing polymers, preparations containing elastomers'.**

L. The following section is added to Section 9:

'9.4. **Preparations classified with R65**

Preparations classified as harmful on the basis of an aspiration hazard need not be labelled as harmful with R65 when placed on the market in aerosol containers or in containers fitted with a sealed spray attachment.'

M. The heading of 'Section 9.4 Organic peroxides' is replaced by:

'9.5. **Organic peroxides'**