

Status: Point in time view as at 12/10/2008.

Changes to legislation: There are currently no known outstanding effects for the Regulation (EC) No 1907/2006 of the European Parliament and of the Council, ANNEX XVII Table 4: rows 51 - 100. (See end of Document for details)

[^{XI} ANNEX XVII

RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, PREPARATIONS AND ARTICLES

Editorial Information

- X1** Substituted by Corrigendum to Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Official Journal of the European Union L 396 of 30 December 2006).

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Appendix 4

Point 29 — Mutagens: category 2

ANNEX XVII Table 4: rows 51 - 100

Tail gas (petroleum), catalytic reformed naphtha fractionation stabiliser; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of catalytic reformed naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₄ .)	649-079-00-9	270-806-7	68478-26-2	H, K
Tail gas (petroleum), saturate gas plant mixed stream, C ₄ -rich; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of straight-run naphtha, distillation tail gas and catalytic reformed naphtha stabiliser tail gas. It consists of hydrocarbons	649-080-00-4	270-813-5	68478-32-0	H, K

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having carbon numbers in the range of C ₃ through C ₆ , predominantly butane and isobutane.)				
Tail gas (petroleum), saturate gas recovery plant, C ₁₋₂ -rich; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of distillate tail gas, straight-run naphtha, catalytic reformed naphtha stabiliser tail gas. It consists predominantly of hydrocarbons having carbon numbers in the range of C ₁ through C ₅ , predominantly methane and ethane.)	649-081-00-X	270-814-0	68478-33-1	H, K
Tail gas (petroleum), vacuum residues thermal cracker; Petroleum gas (A complex combination of hydrocarbons obtained from the thermal cracking of vacuum residues. It consists of hydrocarbons having carbon numbers	649-082-00-5	270-815-6	68478-34-2	H, K

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predominantly in the range of C ₁ through C ₅ .)				
Hydrocarbons, C ₃₋₄ -rich, petroleum distillate; Petroleum gas (A complex combination of hydrocarbons produced by distillation and condensation of crude oil. It consists of hydrocarbons having carbon numbers in the range of C ₃ through C ₅ , predominantly C ₃ through C ₄ .)	649-083-00-0	270-990-9	68512-91-4	H, K
Gases (petroleum), full-range straight-run naphtha dehexaniser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of the full-range straight-run naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C ₂ through C ₆ .)	649-084-00-6	271-000-8	68513-15-5	H, K
Gases (petroleum), hydrocracking depropaniser off, hydrocarbon-rich; Petroleum gas	649-085-00-1	271-001-3	68513-16-6	H, K

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<p>(A complex combination of hydrocarbon produced by the distillation of products from a hydrocracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C₁ through C₄. It may also contain small amounts of hydrogen and hydrogen sulfide.)</p>				
<p>Gases (petroleum), light straight-run naphtha stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained by the stabilisation of light straight-run naphtha. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C₂ through C₆.)</p>	649-086-00-7	271-002-9	68513-17-7	H, K
<p>Residues (petroleum), alkylation splitter, C₄-rich; Petroleum gas (A complex residuum from the distillation</p>	649-087-00-2	271-010-2	68513-66-6	H, K

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of streams from various refinery operations. It consists of hydrocarbons having carbon numbers in the range of C ₄ through C ₅ , predominantly butane, and boiling in the range of approximately -11,7 °C to 27,8 °C.)				
Hydrocarbons, C ₁₋₄ ; Petroleum gas (A complex combination of hydrocarbons provided by thermal cracking and absorber operations and by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₄ and boiling in the range of approximately minus 164 °C to minus 0,5 °C.)	649-088-00-8	271-032-2	68514-31-8	H, K
Hydrocarbons, C ₁₋₄ , sweetened; Petroleum gas (A complex combination of hydrocarbons obtained by subjecting hydrocarbon gases to a sweetening	649-089-00-3	271-038-5	68514-36-3	H, K

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process to convert mercaptans or to remove acidic impurities. It consists of hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₄ and boiling in the range of approximately - 164 °C to -0,5 °C.)				
Hydrocarbons, C ₁₋₃ ; Petroleum gas (A complex combination of hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₃ and boiling in the range of approximately - 164 °C to - 42 °C.)	649-090-00-9	271-259-7	68527-16-2	H, K
Hydrocarbons, C ₁₋₄ , debutaniser fraction; Petroleum gas	649-091-00-4	271-261-8	68527-19-5	H, K
Gases (petroleum), C ₁₋₅ , wet; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of crude oil and/ or the cracking of tower gas oil. It consists of hydrocarbons	649-092-00-X	271-624-0	68602-83-5	H, K

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having carbon numbers predominantly in the range of C ₁ through C ₅ .)				
Hydrocarbons, C ₂₋₄ ; Petroleum gas	649-093-00-5	271-734-9	68606-25-7	H, K
Hydrocarbons, C ₃ ; Petroleum gas	649-094-00-0	271-735-4	68606-26-8	H, K
Gases (petroleum), alkylation feed; Petroleum gas (A complex combination of hydrocarbons produced by the catalytic cracking of gas oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C ₃ through C ₄ .)	649-095-00-6	271-737-5	68606-27-9	H, K
Gases (petroleum), depropaniser bottoms fractionation off; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation of depropaniser bottoms. It consists predominantly of butane, isobutane and butadiene.)	649-096-00-1	271-742-2	68606-34-8	H, K
Gases (petroleum), refinery blend; Petroleum gas	649-097-00-7	272-183-7	68783-07-3	H, K

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(A complex combination obtained from various processes. It consists of hydrogen, hydrogen sulfide and hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ .)				
Gases (petroleum), catalytic cracking; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of the products from a catalytic cracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C ₃ through C ₅ .)	649-098-00-2	272-203-4	68783-64-2	H, K
Gases (petroleum), C ₂₋₄ , sweetened; Petroleum gas (A complex combination of hydrocarbons obtained by subjecting a petroleum distillate to a sweetening process to convert mercaptans	649-099-00-8	272-205-5	68783-65-3	H, K

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or to remove acidic impurities. It consists predominantly of saturated and unsaturated hydrocarbons having carbon numbers predominantly in the range of C ₂ through C ₄ and boiling in the range of approximately - 51 °C to - 34 °C.)				
Gases (petroleum), crude oil fractionation off; Petroleum gas (A complex combination of hydrocarbons produced by the fractionation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ .)	649-100-00-1	272-871-7	68918-99-0	H, K
Gases (petroleum), dehexaniser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of combined naphtha streams. It consists of saturated aliphatic	649-101-00-7	272-872-2	68919-00-6	H, K

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hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ .)				
Gases (petroleum), light straight run gasoline fractionation stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of light straight-run gasoline. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ .)	649-102-00-2	272-878-5	68919-05-1	H, K
Gases (petroleum), naphtha unifier desulphurisation stripper off; Petroleum gas (A complex combination of hydrocarbons produced by a naphtha unifier desulphurisation process and stripped from the naphtha product. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in	649-103-00-8	272-879-0	68919-06-2	H, K

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the range of C ₁ through C ₄ .)				
Gases (petroleum), straight-run naphtha catalytic reforming off; Petroleum gas (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and fractionation of the total effluent. It consists of methane, ethane, and propane.)	649-104-00-3	272-882-7	68919-09-5	H, K
Gases (petroleum), fluidised catalytic cracker splitter overheads; Petroleum gas (A complex combination of hydrocarbons produced by the fractionation of the charge to the C ₃ -C ₄ splitter. It consists predominantly of C ₃ hydrocarbons.)	649-105-00-9	272-893-7	68919-20-0	H, K
Gases (petroleum), straight-run stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation of the liquid from the first	649-106-00-4	272-883-2	68919-10-8	H, K

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<p>tower used in the distillation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C₁ through C₄.)</p>				
<p>Gases (petroleum), catalytic cracked naphtha debutaniser; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C₁ through C₄.)</p>	649-107-00-X	273-169-3	68952-76-1	H, K
<p>Tail gas (petroleum), catalytic cracked distillate and naphtha stabiliser; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of catalytic cracked naphtha and distillate. It consists predominantly of hydrocarbons having carbon</p>	649-108-00-5	273-170-9	68952-77-2	H, K

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numbers predominantly in the range of C ₁ through C ₄ .)				
Tail gas (petroleum), thermal-cracked distillate, gas oil and naphtha absorber; Petroleum gas (A complex combination of hydrocarbons obtained from the separation of thermal-cracked distillates, naphtha and gas oil. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₆ .)	649-109-00-0	273-175-6	68952-81-8	H, K
Tail gas (petroleum), thermal cracked hydrocarbon fractionation stabiliser, petroleum coking; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of thermal cracked hydrocarbons from a petroleum coking process. It consists of hydrocarbons having carbon numbers predominantly in	649-110-00-6	273-176-1	68952-82-9	H, K

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the range of C ₁ through C ₆ .)				
Gases (petroleum, light steam-cracked, butadiene concentrate; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of products from a thermal cracking process. It consists of hydrocarbons having a carbon number predominantly of C ₄ .)	649-111-00-1	273-265-5	68955-28-2	H, K
Gases (petroleum), straight-run naphtha catalytic reformer stabiliser overhead; Petroleum gas (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and the fractionation of the total effluent. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C ₂ through C ₄ .)	649-112-00-7	273-270-2	68955-34-0	H, K

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Hydrocarbons, C ₄ ; Petroleum gas	649-113-00-2	289-339-5	87741-01-3	H, K
Alkanes, C ₁₋₄ , C ₃ -rich; Petroleum gas	649-114-00-8	292-456-4	90622-55-2	H, K
Gases (petroleum), steam-cracker C ₃ -rich; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of products from a steam cracking process. It consists predominantly of propylene with some propane and boils in the range of approximately - 70 °C to 0 °C.)	649-115-00-3	295-404-9	92045-22-2	H, K
Hydrocarbons, C ₄ , steam-cracker distillate; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of the products of a steam cracking process. It consists predominantly of hydrocarbons having a carbon number of C ₄ , predominantly 1-butene and 2-butene, containing also butane and isobutene and boiling in	649-116-00-9	295-405-4	92045-23-3	H, K

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the range of approximately - 12 °C to 5 °C.)				
Petroleum gases, liquefied, sweetened, C ₄ fraction; Petroleum gas (A complex combination of hydrocarbons obtained by subjecting a liquified petroleum gas mix to a sweetening process to oxidise mercaptans or to remove acidic impurities. It consists predominantly of C ₄ saturated and unsaturated hydrocarbons.)	649-117-00-4	295-463-0	92045-80-2	H, K, S
Raffinates (petroleum), steam-cracked C ₄ fraction cuprous ammonium acetate extraction, C ₃₋₅ and C ₃₋₅ unsaturated., butadiene-free; Petroleum gas	649-119 -00-5	307-769-4	97722-19-5	H, K
Gases (petroleum), amine system feed; Refinery gas (The feed gas to the amine system for removal of hydrogen sulphide. It consists primarily of	649-120-00-0	270-746-1	68477-65-6	H, K

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hydrogen. Carbon monoxide, carbon dioxide, hydrogen sulfide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ may also be present.)				
Gases (petroleum), benzene unit hydrodesulphuriser off; Refinery gas (Off gases produced by the benzene unit. It consists primarily of hydrogen. Carbon monoxide and hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₆ , including benzene, may also be present.)	649-121-00-6	270-747-7	68477-66-7	H, K
Gases (petroleum), benzene unit recycle, hydrogen-rich; Refinery gas (A complex combination of hydrocarbons obtained by recycling the gases of the benzene unit. It consists primarily of hydrogen	649-122-00-1	270-748-2	68477-67-8	H, K

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with various small amounts of carbon monoxide and hydrocarbons having carbon numbers in the range of C ₁ through C ₆ .)				
Gases (petroleum), blend oil, hydrogen-nitrogen-rich; Refinery gas (A complex combination of hydrocarbons obtained by distillation of a blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide, and aliphatic hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₅ .)	649-123-00-7	270-749-8	68477-68-9	H, K
Gases (petroleum), catalytic reformed naphtha stripper overheads; Refinery gas (A complex combination of hydrocarbons obtained from stabilisation of catalytic reformed	649-124-00-2	270-759-2	68477-77-0	H, K

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naphtha. It consists of hydrogen and saturated hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₄ .)				
Gases (petroleum), C ₆₋₈ catalytic reformer recycle; Refinery gas (A complex combination of hydrocarbons produced by distillation of products from catalytic reforming of C ₆ -C ₈ feed and recycled to conserve hydrogen. It consists primarily of hydrogen. It may also contain various small amounts of carbon monoxide, carbon dioxide, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₆ .)	649-125-00-8	270-761-3	68477-80-5	H, K
Gases (petroleum), C ₆₋₈ catalytic reformer; Refinery gas (A complex combination of hydrocarbons	649-126-00-3	270-762-9	68477-81-6	H, K

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produced by distillation of products from catalytic reforming of C ₆ -C ₈ feed. It consists of hydrocarbons having carbon numbers in the range of C ₁ through C ₅ and hydrogen.)				
Gases (petroleum), C ₆₋₈ catalytic reformer recycle, hydrogen-rich; Refinery gas	649-127-00-9	270-763-4	68477-82-7	H, K
Gases (petroleum), C ₂ -return stream; Refinery gas (A complex combination of hydrocarbons obtained by the extraction of hydrogen from a gas stream which consists primarily of hydrogen with small amounts of nitrogen, carbon monoxide, methane, ethane, and ethylene. It contains predominantly hydrocarbons such as methane, ethane, and ethylene with small amounts of hydrogen, nitrogen and carbon monoxide.)	649-128-00-4	270-766-0	68477-84-9	H, K
Gases (petroleum),	649-129-00-X	270-774-4	68477-92-9	H, K]

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dry sour, gas-concentration-unit-off; Refinery gas (The complex combination of dry gases from a gas concentration unit. It consists of hydrogen, hydrogen sulphide and hydrocarbons having carbon numbers predominantly in the range of C ₁ through C ₃ .)				
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