



Putoline Chain & Engine Degreaser (AE)

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 23-10-2018 Revision date: 6-1-2023 Supersedes version of: 8-11-2022 Version: 3.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : Putoline Chain & Engine Degreaser (AE)
UFI : VJ40-E00M-H003-RX6D
Product code : PW.10.00
Type of product : Detergent
Vaporizer : Aerosol
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Degreaser
Function or use category : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Putoline Oil
Dollegoorweg, 15
NL- 7602 EC Almelo
Netherlands
T 0031 (0)546 81 81 65
vib@putoline.com

1.4. Emergency telephone number

| Country | Organisation/Company | Address | Emergency number | Comment |
|----------------|---|--|--|--------------------------------------|
| Ireland | National Poisons Information Centre Beaumont Hospital | PO Box 1297 Beaumont Road 9 Dublin | +353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| United Kingdom | National Poisons Information Service (Cardiff Centre) University Hospital Llandough | Penlan Road CF64 2XX Cardiff | 0344 892 0111 | Only for healthcare professionals |

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229
Aspiration hazard, Category 1 H304
Hazardous to the aquatic environment – Chronic Hazard, Category 4 H413
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May be fatal if swallowed and enters airways. May cause long lasting harmful effects to aquatic life.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated.

H413 - May cause long lasting harmful effects to aquatic life.

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.

P102 - Keep out of reach of children.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

P280 - Wear protective gloves, eye protection.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 - If eye irritation persists: Get medical advice/attention.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

EUH-statements

: EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|---------|--|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | CAS-No.: 246538-78-3 EC-No.: 920-901-0 REACH-no: 01-2119456810-40 | 25 – 50 | Asp. Tox. 1, H304 EUH066 |
| Alkanes (C11-C12), iso-alkanes, <2% aromates | CAS-No.: 90622-57-4 EC-No.: 918-167-1 REACH-no: 01-2119472146-39 | 25 – 50 | Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 4, H413 EUH066 |
| Butane substance with national workplace exposure limit(s) (GB, IE) (Note K) | CAS-No.: 106-97-8 EC-No.: 203-448-7 EC Index-No.: 601-004-00-0 REACH-no: 01-2119474691-32 | 10 – 25 | Flam. Gas 1A, H220 Press. Gas (Comp.), H280 |

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| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--|---|----------|---|
| Propane substance with a Community workplace exposure limit (Note U) | CAS-No.: 74-98-6 EC-No.: 200-827-9 EC Index-No.: 601-003-00-5 REACH-no: 01-2119486944-21 | 10 – 25 | Flam. Gas 1A, H220 Press. Gas (Comp.), H280 |
| isobutane substance with national workplace exposure limit(s) (IE) (Note K) | CAS-No.: 75-28-5 EC-No.: 200-857-2 REACH-no: 01-2119485395-27 | 2,5 – 10 | Flam. Gas 1A, H220 Press. Gas (Comp.), H280 |

Specific concentration limits:

| Name | Product identifier | Specific concentration limits |
|--|---|-------------------------------|
| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics | CAS-No.: 246538-78-3 EC-No.: 920-901-0 REACH-no: 01-2119456810-40 | (25 ≤C < 100) EUH066 |
| Alkanes (C11-C12), iso-alkanes, <2% aromates | CAS-No.: 90622-57-4 EC-No.: 918-167-1 REACH-no: 01-2119472146-39 | (25 ≤C < 100) EUH066 |

Note K : The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w 1,3- butadiene (Einecs No 203-450-8), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P210-P403 shall apply.

Note U (Table 3): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case. The following codes are assigned: Press. Gas (Comp.), Press. Gas (Liq.), Press. Gas (Ref. Liq.), Press. Gas (Diss.).

Aerosols shall not be classified as gases under pressure (See Annex I, Part 2, Section 2.3.2.1, Note 2)

Product subject to CLP Article 1.1.3.7. The disclosure rules of the components is modified in this case.

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|--|
| First-aid measures general | : Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Do not induce vomiting. Call a physician immediately. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|-------------------------------------|---|
| Symptoms/effects after skin contact | : Repeated exposure may cause skin dryness or cracking. |
| Symptoms/effects after ingestion | : Risk of lung oedema. |

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.
Explosion hazard : Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire : Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep cool.
Storage temperature : 5 – 40 °C

7.3. Specific end use(s)

No additional information available

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

| Butane (106-97-8) | |
|---|--|
| Ireland - Occupational Exposure Limits | |
| Local name | Butane, all isomers: Butane |
| OEL STEL [ppm] | 1000 ppm |
| Regulatory reference | Chemical Agents Code of Practice 2021 |
| United Kingdom - Occupational Exposure Limits | |
| Local name | Butane |
| WEL TWA (OEL TWA) [1] | 1450 mg/m ³ |
| WEL TWA (OEL TWA) [2] | 600 ppm |
| WEL STEL (OEL STEL) | 1810 mg/m ³ |
| WEL STEL (OEL STEL) [ppm] | 750 ppm |
| Remark | Carc (Capable of causing cancer and/or heritable genetic damage, only applies if Butane contains more than 0.1% of buta-1,3-diene) |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |
| Propane (74-98-6) | |
| EU - Indicative Occupational Exposure Limit (IOEL) | |
| IOEL TWA [ppm] | 1000 ppm |
| Ireland - Occupational Exposure Limits | |
| Local name | Aliphatic hydrocarbon gases Alkanes (C1-C3): Propane |
| Remark | Asphx. (Gaseous chemical substances which may not produce significant physiological effects in the exposed employee, but when present in high concentrations will act as simple asphyxiants) |
| Regulatory reference | Chemical Agents Code of Practice 2021 |
| isobutane (75-28-5) | |
| Ireland - Occupational Exposure Limits | |
| Local name | Butane, all isomers: Isobutane |
| OEL STEL [ppm] | 1000 ppm |
| Regulatory reference | Chemical Agents Code of Practice 2021 |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

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8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

| Eye protection | | | |
|----------------|----------------------|-----------------|----------|
| Type | Field of application | Characteristics | Standard |
| Safety glasses | Droplet | clear | EN 166 |

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

| Hand protection | | | | | |
|-----------------|----------------------|-------------------|----------------|-------------|------------|
| Type | Material | Permeation | Thickness (mm) | Penetration | Standard |
| Reusable gloves | Nitrile rubber (NBR) | 6 (> 480 minutes) | ≥0.35 | | EN ISO 374 |

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|-----------------|--------------------------------|
| Physical state | : Liquid |
| Colour | : Colourless to Amber. |
| Appearance | : Aerosols. |
| Odour | : characteristic. |
| Odour threshold | : Not available |
| Melting point | : Not applicable |
| Freezing point | : Not available |
| Boiling point | : -44,5 °C |
| Flammability | : Extremely flammable aerosol. |

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| | |
|---|--|
| Explosive properties | : Pressurised container: May burst if heated. |
| Explosive limits | : Not available |
| Lower explosion limit | : 0,6 vol % |
| Upper explosion limit | : 10,9 vol % |
| Flash point | : -97 °C |
| Auto-ignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : substance/mixture is non-polar/aprotic |
| Viscosity, kinematic | : ≤ 20,5 mm ² /s (40 °C) - ASTM D7279 |
| Solubility | : Water: Insoluble / Slightly miscible |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : 8300 hPa at 20 °C |
| Vapour pressure at 50°C | : Not available |
| Density | : 0,661 g/cm ³ at 20 °C |
| Relative density | : Not available |
| Relative vapour density at 20°C | : Not available |
| Particle characteristics | : Not applicable |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

| | |
|----------------------------|------------|
| % of flammable ingredients | : 100 |
| Critical temperature | : > 200 °C |

9.2.2. Other safety characteristics

| | |
|-------------|-------------|
| VOC content | : 636,2 g/l |
|-------------|-------------|

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|-----------------------------|------------------|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3)

| | |
|---------------|--|
| LD50 oral rat | > 5000 mg/kg [Test(s) equivalent or similar to OECD Guideline 401] |
|---------------|--|

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| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3) | |
|--|---|
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LD50 dermal rabbit | ≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat (Vapours) | 5 mg/l/4h |

| Alkanes (C11-C12), iso-alkanes, <2% aromates (90622-57-4) | |
|---|---|
| LD50 dermal rat | > 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LD50 dermal rabbit | ≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |

| | |
|-----------------------------------|--|
| Skin corrosion/irritation | : Not classified pH: substance/mixture is non-polar/aprotic |
| Serious eye damage/irritation | : Not classified pH: substance/mixture is non-polar/aprotic |
| Respiratory or skin sensitisation | : Not classified |
| Germ cell mutagenicity | : Not classified |
| Carcinogenicity | : Not classified |
| Reproductive toxicity | : Not classified |
| STOT-single exposure | : Not classified |
| STOT-repeated exposure | : Not classified |
| Aspiration hazard | : May be fatal if swallowed and enters airways. |

| Putoline Chain & Engine Degreaser (AE) | |
|--|--|
| Vaporizer | Aerosol |
| Viscosity, kinematic | ≤ 20,5 mm ² /s (40 °C) - ASTM D7279 |

| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3) | |
|--|--|
| Viscosity, kinematic | 1,77 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)' |

| Alkanes (C11-C12), iso-alkanes, <2% aromates (90622-57-4) | |
|---|--|
| Viscosity, kinematic | 1,57 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)' |

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

| | |
|---|---|
| Ecology - general | : May cause long lasting harmful effects to aquatic life. |
| Hazardous to the aquatic environment, short-term (acute) | : Not classified |
| Hazardous to the aquatic environment, long-term (chronic) | : May cause long lasting harmful effects to aquatic life. |

| Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3) | |
|--|--|
| NOEC (acute) | 1000 mg/l (Pseudokirchneriella subcapitata, 72h) |
| EC0, acute, daphnia | = 1000 mg/l (48 Hours) |
| EC0, acute, Pseudokirchneriella subcapitata | = 1000 mg/l (72 Hours) |
| LC0, acute, Oncorhynchus mykiss | = 1000 mg/l (96 Hours) |

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Alkanes (C11-C12), iso-alkanes, <2% aromates (90622-57-4)

| | |
|----------------|---|
| NOEC (chronic) | 0,011 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
|----------------|---|

12.2. Persistence and degradability

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| | |
|-------------------------------|----------------------------|
| Persistence and degradability | Not readily biodegradable. |
|-------------------------------|----------------------------|

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3)

| | |
|-------------------------------|------------------------|
| Persistence and degradability | Readily biodegradable. |
|-------------------------------|------------------------|

| | |
|----------------|-------------------------------|
| Biodegradation | 31,3 % 28d [similar material] |
|----------------|-------------------------------|

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics (246538-78-3)

| | |
|----------------|---------------------|
| Ecology - soil | Extremely volatile. |
|----------------|---------------------|

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-----------------------------------|---|
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| European List of Waste (LoW) code | : 20 01 13* - solvents |
| HP Code | : HP3 - "Flammable:" <ul style="list-style-type: none">– flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;– flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;– flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;– flammable gaseous waste: gaseous waste which is flammable in air at 20 °C and a standard pressure of 101.3 kPa;– water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;– other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste. |
| | HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment |






SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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| ADR | IMDG | IATA | ADN | RID |
|---|---|---|---|---|
| 14.1. UN number or ID number | | | | |
| UN 1950 | UN 1950 | UN 1950 | UN 1950 | UN 1950 |
| 14.2. UN proper shipping name | | | | |
| AEROSOLS | AEROSOLS | Aerosols, flammable | AEROSOLS | AEROSOLS |
| Transport document description | | | | |
| UN 1950 AEROSOLS, 2.1, (D) | UN 1950 AEROSOLS, 2.1 | UN 1950 Aerosols, flammable, 2.1 | UN 1950 AEROSOLS, 2.1 | UN 1950 AEROSOLS, 2.1 |
| 14.3. Transport hazard class(es) | | | | |
| 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: No | Dangerous for the environment: No Marine pollutant: No | Dangerous for the environment: No | Dangerous for the environment: No | Dangerous for the environment: No |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

| | |
|---|----------------------|
| Classification code (ADR) | : 5F |
| Special provisions (ADR) | : 190, 327, 344, 625 |
| Limited quantities (ADR) | : 1I |
| Excepted quantities (ADR) | : E0 |
| Packing instructions (ADR) | : P207 |
| Special packing provisions (ADR) | : PP87, RR6, L2 |
| Mixed packing provisions (ADR) | : MP9 |
| Transport category (ADR) | : 2 |
| Special provisions for carriage - Packages (ADR) | : V14 |
| Special provisions for carriage - Loading, unloading and handling (ADR) | : CV9, CV12 |
| Special provisions for carriage - Operation (ADR) | : S2 |
| Tunnel restriction code (ADR) | : D |

Transport by sea

| | |
|-----------------------------------|------------------------------------|
| Special provisions (IMDG) | : 63, 190, 277, 327, 344, 381, 959 |
| Limited quantities (IMDG) | : SP277 |
| Excepted quantities (IMDG) | : E0 |
| Packing instructions (IMDG) | : P207, LP200 |
| Special packing provisions (IMDG) | : PP87, L2 |
| EmS-No. (Fire) | : F-D |
| EmS-No. (Spillage) | : S-U |
| Stowage category (IMDG) | : None |
| Stowage and handling (IMDG) | : SW1, SW22 |
| Segregation (IMDG) | : SG69 |

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Air transport

| | |
|--|--------------------|
| PCA Excepted quantities (IATA) | : E0 |
| PCA Limited quantities (IATA) | : Y203 |
| PCA limited quantity max net quantity (IATA) | : 30kgG |
| PCA packing instructions (IATA) | : 203 |
| PCA max net quantity (IATA) | : 75kg |
| CAO packing instructions (IATA) | : 203 |
| CAO max net quantity (IATA) | : 150kg |
| Special provisions (IATA) | : A145, A167, A802 |
| ERG code (IATA) | : 10L |

Inland waterway transport

| | |
|-----------------------------------|----------------------|
| Classification code (ADN) | : 5F |
| Special provisions (ADN) | : 190, 327, 344, 625 |
| Limited quantities (ADN) | : 1 L |
| Excepted quantities (ADN) | : E0 |
| Equipment required (ADN) | : PP, EX, A |
| Ventilation (ADN) | : VE01, VE04 |
| Number of blue cones/lights (ADN) | : 1 |

Rail transport

| | |
|---|----------------------|
| Classification code (RID) | : 5F |
| Special provisions (RID) | : 190, 327, 344, 625 |
| Limited quantities (RID) | : 1L |
| Excepted quantities (RID) | : E0 |
| Packing instructions (RID) | : P207, LP200 |
| Special packing provisions (RID) | : PP87, RR6, L2 |
| Mixed packing provisions (RID) | : MP9 |
| Transport category (RID) | : 2 |
| Special provisions for carriage – Packages (RID) | : W14 |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW9, CW12 |
| Colis express (express parcels) (RID) | : CE2 |
| Hazard identification number (RID) | : 23 |

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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VOC Directive (2004/42)

VOC content : 636,2 g/l

Biocide Regulation (528/2012)

Child-resistant fastening : Not applicable

Tactile warning : Not applicable

Detergent Regulation (648/2004)

Allergenic fragrances > 0.01 %:

Hydrocarbons, C11-C13, isoalkanes, <2% aromatics

Labelling of contents

| Component | % |
|------------------------|------|
| aliphatic hydrocarbons | ≥30% |
| non-ionic surfactants | <5% |

Seveso Directive (Disaster Risk Reduction)

| Seveso III Part I (Categories of dangerous substances) | Qualifying quantity (tonnes) | |
|--|------------------------------|------------|
| | Lower-tier | Upper-tier |
| P3a FLAMMABLE AEROSOLS 'Flammable' aerosols Category 1 or 2, containing flammable gases Category 1 or 2 or flammable liquids Category 1 | 150 | 500 |

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes

| Section | Changed item | Change | Comments |
|---------|-------------------------------|----------|----------|
| | Excepted quantities (IMDG) | Added | |
| | Limited quantities (IMDG) | Added | |
| 1.2 | Function or use category | Added | |
| 9.1 | pH | Added | |
| 12.2 | Persistence and degradability | Modified | |
| 16 | Abbreviations and acronyms | Modified | |

Abbreviations and acronyms:

| | |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |

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| Abbreviations and acronyms: | |
|-----------------------------|--|
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

| Full text of H- and EUH-statements: | |
|-------------------------------------|---|
| Aquatic Chronic 4 | Hazardous to the aquatic environment – Chronic Hazard, Category 4 |
| Asp. Tox. 1 | Aspiration hazard, Category 1 |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |
| Flam. Gas 1A | Flammable gases, Category 1A |

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Full text of H- and EUH-statements:

| | |
|--------------------|---|
| Flam. Liq. 3 | Flammable liquids, Category 3 |
| H220 | Extremely flammable gas. |
| H222 | Extremely flammable aerosol. |
| H226 | Flammable liquid and vapour. |
| H229 | Pressurised container: May burst if heated. |
| H280 | Contains gas under pressure; may explode if heated. |
| H304 | May be fatal if swallowed and enters airways. |
| H413 | May cause long lasting harmful effects to aquatic life. |
| Press. Gas (Comp.) | Gases under pressure : Compressed gas |

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.