# Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Iron-X LS



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

### 1.1. Product identifier

Iron-X LS

UFI: TYD9-Q04M-J003-S7WE

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

**Use of the substance/mixture**

Automotive care products

**Uses advised against**

Any non-intended use.

### 1.3. Details of the supplier of the safety data sheet

| | |
|---|---|
| Company name: | CarPro Global Limited. |
| Street: | No. 10, Atocia Street |
| Place: | M-2120 Hamrun. Malta |
| Telephone: | +972 546 411 911 |
| E-mail: | safety@carpro.global |
| Internet: | https://carpro.global/ |

**Further Information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Regulation (EC) No 1272/2008**

Met. Corr. 1; H290
Acute Tox. 4; H302
Skin Irrit. 2; H315
Eye Irrit. 2; H319
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

ammonium mercaptoacetate
geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol
(R)-p-mentha-1,8-diene; d-limonene
citral

**Signal word:** Warning

**Pictograms:**



**Hazard statements**

| | |
|---|---|
| H290 | May be corrosive to metals. |
| H302 | Harmful if swallowed. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |

**Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water and soap. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P501 | Dispose of contents/container to local/regional/national/international regulations. |

**2.3. Other hazards**

Endocrine disrupting properties: 4-(1,1,3,3-Tetramethylbutyl)-phenylol, ethoxylated.
The substance is suspected of having endocrine disrupting properties. The evaluation of endocrine disrupting properties is under development (ECHA).
The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

**3.2. Mixtures**

**Relevant ingredients**

| CAS No | Chemical name | | | Quantity |
|---|---|---|---|---|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 5421-46-5 | ammonium mercaptoacetate | | | 12 - < 15 % |
| | 226-540-9 | | | |
| | Met. Corr. 1, Acute Tox. 3, Skin Sens. 1; H290 H301 H317 | | | |
| 68439-50-9 | Alcohols, C12-14, ethoxylated | | | 10 - < 12 % |
| | 500-213-3 | | | |
| | Eye Irrit. 2, Aquatic Acute 1; H319 H400 | | | |
| 9004-82-4 | Sodium dodecylpoly(oxyethylene) sulfate | | | 5 - < 7 % |
| | Skin Irrit. 2, Eye Irrit. 2; H315 H319 | | | |
| 9002-93-1 | 4-(1,1,3,3-Tetramethylbutyl)-phenylol, ethoxylated | | | 1 - < 3 % |
| | Aquatic Chronic 3, ED ENV 1; H412 EUH430 | | | |
| 34590-94-8 | (2-methoxymethylethoxy)propanol* | | | 1 - < 3 % |
| | 252-104-2 | | | |
| | | | | |
| 7664-38-2 | phosphoric acid | | | 1 - < 3 % |
| | 231-633-2 | 015-011-00-6 | | |
| | Skin Corr. 1B, Eye Dam. 1; H314 H318 | | | |
| 50-21-5 | lactic acid | | | 1 - < 3 % |
| | 200-018-0 | | | |
| | Skin Corr. 1C, Eye Dam. 1; H314 H318 EUH071 | | | |
| 106-24-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | | | 0.1 - < 0.2 % |
| | 203-377-1 | 603-241-00-5 | | |
| | Skin Irrit. 2, Eye Dam. 1, Skin Sens. 1; H315 H318 H317 | | | |
| 5989-27-5 | (R)-p-mentha-1,8-diene; d-limonene | | | 0.1 - < 0.2 % |
| | 227-813-5 | 601-096-00-2 | | |
| | Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1B, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 3; H226 H315 H317 H304 H400 H412 | | | |

| | | | | |
|---|---|---|---|---|
| 5392-40-5 | citral | | | 0.1 - < 0.2 % |
| | 226-394-6 | 605-019-00-3 | | |
| | Skin Irrit. 2, Skin Sens. 1; H315 H317 | | | |

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

**Specific Conc. Limits, M-factors and ATE**

| CAS No | EC No | Chemical name | Quantity |
|---|---|---|---|
| | Specific Conc. Limits, M-factors and ATE | | |
| 5421-46-5 | 226-540-9 | ammonium mercaptoacetate | 12 - < 15 % |
| | oral: ATE = 100 mg/kg | | |
| 68439-50-9 | 500-213-3 | Alcohols, C12-14, ethoxylated | 10 - < 12 % |
| | oral: LD50 = >2000 mg/kg | | |
| 9004-82-4 | | Sodium dodecylpoly(oxyethylene) sulfate | 5 - < 7 % |
| | dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg | | |
| 7664-38-2 | 231-633-2 | phosphoric acid | 1 - < 3 % |
| | Skin Corr. 1B; H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 25 | | |
| 50-21-5 | 200-018-0 | lactic acid | 1 - < 3 % |
| | inhalation: LC50 = (>7,94) mg/l (dusts or mists); dermal: LD50 = (>2000) mg/kg; oral: LD50 = (>2000) mg/kg | | |
| 106-24-1 | 203-377-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | 0.1 - < 0.2 % |
| | dermal: LD50 = > 5000 mg/kg; oral: LD50 = 3600 mg/kg | | |
| 5989-27-5 | 227-813-5 | (R)-p-mentha-1,8-diene; d-limonene | 0.1 - < 0.2 % |
| | dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg Aquatic Acute 1; H400: M=1 | | |
| 5392-40-5 | 226-394-6 | citral | 0.1 - < 0.2 % |
| | dermal: LD50 = >2000 mg/kg; oral: LD50 = 6800 mg/kg | | |

**Labelling for contents according to Regulation (EC) No 648/2004**

5 % - < 15 % non-ionic surfactants, 5 % - < 15 % anionic surfactants, perfumes (Geraniol, Limonene, Citral, Linalool).

**Further Information**

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: 4-(1,1,3,3-Tetramethylbutyl)-phenylol, ethoxylated

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove contaminated, saturated clothing immediately.

**After inhalation**

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of allergic symptoms, especially in the breathing area, seek medical advice immediately. Apply cortisone spray at early stage.

**After contact with skin**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

**After contact with eyes**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist.

**After ingestion**

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical advice.

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

See sections 2 and 11

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

Treat symptomatically.

## SECTION 5: Firefighting measures

**5.1. Extinguishing media**

**Suitable extinguishing media**

Carbon dioxide (CO2). Dry extinguishing powder. Alcohol resistant foam. Atomized water.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO2). Sulphur oxides. Nitrogen oxides (NOx). Ammonia (NH3). Phosphorus oxides.

**5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

**Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

## SECTION 6: Accidental release measures

**6.1. Personal precautions, protective equipment and emergency procedures**

**General advice**

Safe handling: see section 7

**For non-emergency personnel**

Wear personal protection equipment (refer to section 8).

**For emergency responders**

No special measures are necessary.

**6.2. Environmental precautions**

Discharge into the environment must be avoided.

**6.3. Methods and material for containment and cleaning up**

**For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal .

**For cleaning up**

Clean contaminated objects and areas thoroughly observing environmental regulations.

**6.4. Reference to other sections**

Safe handling: see section 7
Personal protection equipment: see section 8
Disposal: see section 13

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

**Advice on safe handling**

Wear suitable protective clothing. See section 8.

**Advice on protection against fire and explosion**

Usual measures for fire prevention.

**Advice on general occupational hygiene**

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

**Further information on handling**

General protection and hygiene measures: See section 8.

### 7.2. Conditions for safe storage, including any incompatibilities

**Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.

**Hints on joint storage**

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

**Further information on storage conditions**

Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.
Recommended storage temperature: 20 °C
Protect against: frost. UV-radiation/sunlight. heat. Humidity

### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Occupational exposure limits**

| CAS No | Substance | ppm | mg/m³ | fib/cm³ | Category | Origin |
|---|---|---|---|---|---|---|
| 34590-94-8 | (2-Methoxymethylethoxy)-l-propanol | 50 | 308 | | TWA (8 h) | |
| 5392-40-5 | Citral (Inhalable Fraction and Vapour) | 5 | - | | TWA (8 h) | |
| 64-17-5 | Ethanol | 1000 | - | | STEL (15 min) | |
| 7664-38-2 | Orthophosphoric acid | - | 1 | | TWA (8 h) | |
| | | - | 2 | | STEL (15 min) | |

### 8.2. Exposure controls





**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.
Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses; chemical goggles (if splashing is possible). EN ISO 16321-1:2022

**Hand protection**

Wear suitable gloves.
Suitable material:
FKM (fluororubber). - Thickness of glove material: 0,4 mm
Breakthrough time >= 8 h
Butyl rubber. - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm
Breakthrough time >= 8 h
PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm
Breakthrough time >= 8 h
For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.
Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Suitable protective clothing: Lab apron.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.
Respiratory protection necessary at:
-Exceeding exposure limit values
-Insufficient ventilation and aerosol or mist formation
Suitable respiratory protective equipment: particulates filter device (DIN EN 143). type: P1-3
Half-face mask or quarter facepiece: maximum use concentration for substances with exposure limits: P1 filter: up to a max. of 4 times the exposure limit. P2 filter: up to a max. of 10 times the exposure limit. P3 filter: up to a max. of 30 times the expo.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used.

**Environmental exposure controls**

Do not allow uncontrolled discharge of product into the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| | | |
|---|---|---|
| Physical state: | liquid | |
| Colour: | red | |
| Odour: | characteristic | |
| Odour threshold: | not determined | |
| Melting point/freezing point: | | not determined |
| Boiling point or initial boiling point and boiling range: | | 100 °C |
| Flammability: | | not determined |
| Lower explosion limits: | | not determined |
| Upper explosion limits: | | not determined |
| Flash point: | | not determined |
| Auto-ignition temperature: | | not determined |
| Decomposition temperature: | | not determined |
| pH-Value (at 20 °C): | | 5,7 |
| Viscosity / kinematic: | | not determined |
| Water solubility: | | not determined |

Solubility in other solvents

not determined

| | |
|---|---|
| Dissolution rate: | not relevant |
| Partition coefficient n-octanol/water: | not relevant |
| Dispersion stability: | not relevant |

| | |
|---|---|
| Vapour pressure: | not determined |
| Density: | not determined |
| Bulk density: | not relevant |
| Relative vapour density: | not determined |
| Particle characteristics: | not relevant |

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

none

| | |
|---|---|
| Sustained combustibility: | No data available |

Self-ignition temperature

| | |
|---|---|
| Solid: | not relevant |
| Gas: | not relevant |

Oxidizing properties

none

**Other safety characteristics**

| | |
|---|---|
| Evaporation rate: | not determined |
| Solvent separation test: | not determined |
| Solvent content: | not determined |
| Solid content: | not determined |
| Sublimation point: | not relevant |
| Softening point: | not relevant |
| Pour point: | not relevant |
| Viscosity / dynamic: | not determined |
| Flow time: | not determined |

**Further Information**

No information available.

## SECTION 10: Stability and reactivity

**10.1. Reactivity**

May be corrosive to metals.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

Refer to section 10.5.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Acid.

**10.6. Hazardous decomposition products**

Does not decompose when used for intended uses.

## SECTION 11: Toxicological information

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

**Toxicocinetics, metabolism and distribution**

No data available.

**Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 769,2 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

| CAS No | Chemical name | | | | |
|---|---|---|---|---|---|
| | Exposure route | Dose | Species | Source | Method |
| 5421-46-5 | ammonium mercaptoacetate | | | | |
| | oral | ATE 100 mg/kg | | | |
| 68439-50-9 | Alcohols, C12-14, ethoxylated | | | | |
| | oral | LD50 >2000 mg/kg | Rat | ECHA Dossier | |
| 9004-82-4 | Sodium dodecylpoly(oxyethylene) sulfate | | | | |
| | oral | LD50 >2000 mg/kg | Rat | ECHA Dossier | |
| | dermal | LD50 >2000 mg/kg | Rat | ECHA Dossier | |
| 50-21-5 | lactic acid | | | | |
| | oral | LD50 (>2000) mg/kg | Rat | ECHA Dossier | |
| | dermal | LD50 (>2000) mg/kg | Rabbit | ECHA Dossier | |
| | inhalation (4 h) dust/mist | LC50 (>7,94) mg/l | Rat | ECHA Dossier | OECD 403 |
| 106-24-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | | | | |
| | oral | LD50 3600 mg/kg | Rat | ECHA Dossier | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | ECHA Dossier | |
| 5989-27-5 | (R)-p-mentha-1,8-diene; d-limonene | | | | |
| | oral | LD50 > 5000 mg/kg | Rat | GESTIS | |
| | dermal | LD50 > 5000 mg/kg | Rabbit | GESTIS | |
| 5392-40-5 | citral | | | | |
| | oral | LD50 6800 mg/kg | Rat. | ECHA Dossier | |
| | dermal | LD50 >2000 mg/kg | Rat. | ECHA Dossier | |

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye irritation.

**Sensitising effects**

May cause an allergic skin reaction. (ammonium mercaptoacetate; geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol; (R)-p-mentha-1,8-diene; d-limonene; citral)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol (CAS-No.: 106-24-1):

In-vitro mutagenicity: Method: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) Result: negative. Literature information: ECHA Dossier. Reproductive toxicity: (dermal.) Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test) Species: Rat, Result: NOEL = 300 mg/kg; Literature information: ECHA Dossier
Developmental toxicity/teratogenicity: (dermal.) Method: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test) Species: Rat, Result: NOAEL = 300 mg/kg; Literature information: ECHA Dossier

citral (CAS-No.: 5392-40-5):
In-vitro mutagenicity: Method: OECD Guideline 471 (Bacterial Reverse Mutation Assay) = negative. Literature information: ECHA Dossier; In-vivo mutagenicity OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test) = negative. Literature information: ECHA Dossier; Carcinogenicity: Method: -; Species: Rat. Result: negative. Literature information: RESS,NB HAILEY,JR MARONPOT,RR BUCHER,JR TRAVLOS,GS, HASEMAN,JK ORZECH,DP JOHNSON,JD AND HEJTMANCIK,MR; TOXICOLOGY AND CARCINOGENESIS STUDIES OF MICROENCAPSULATED CITRAL IN RATS AND MICE; TOXICOL. SCI. 71(2):198-206, 2003

(R)-p-mentha-1,8-diene; D-limonene (CAS-No.: 5989-27-5):
In-vitro mutagenicity: OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test) = negative. Literature information: ECHA Dossier; Carcinogenicity: Method: OECD Guideline 451 (Carcinogenicity Studies); Species: Rat;Length of test: 2 years; Result: NOAEL >= 300 <= 600 mg/kg; Literature information: ECHA Dossier

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol (CAS-No.: 106-24-1):
Subchronic oral toxicity: Method: -, Species: Rat,
Results: NOEL >= 550 mg/kg; Literature information: ECHA Dossier

(R)-p-mentha-1,8-diene; D-limonene (CAS-No.: 5989-27-5):
Subacute oral toxicity: Species: Mouse. NOAEL = 1650 mg/kg; Literature information: ECHA Dossier

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

No data available.

### 11.2. Information on other hazards

**Endocrine disrupting properties**

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

Based on available data, the classification criteria are not met.

| CAS No | Chemical name | | | | | |
|---|---|---|---|---|---|---|
| | Aquatic toxicity | Dose | [h] \| [d] | Species | Source | Method |
| 9004-82-4 | Sodium dodecylpoly(oxyethylene) sulfate | | | | | |
| | Acute fish toxicity | LC50 (7,1) mg/l | 96 h | Danio rerio | ECHA Dossier | |
| | Acute algae toxicity | ErC50 (27) mg/l | 72 h | Desmodesmus subspicatu | ECHA Dossier | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Acute crustacea toxicity | EC50 mg/l | (7,2) | 48 h | Daphnia magna | ECHA Dossier | |
| | Fish toxicity | NOEC mg/l | (0,14) | 28 d | Oncorhynchus mykiss | ECHA Dossier | |
| 50-21-5 | lactic acid | | | | | | |
| | Acute fish toxicity | LC50 | 130 mg/l | 96 h | Lepomis macrochirus | ECHA Dossier | |
| | Acute algae toxicity | ErC50 mg/l | 3500 | 72 h | Pseudokirchnerella subcapitata | ECHA Dossier | OECD 201 |
| | Acute crustacea toxicity | EC50 | 130 mg/l | 48 h | Daphnia magna | ECHA Dossier | OECD 202 |
| | Acute bacteria toxicity | EC50 mg/l ( ) | >88,2 | 3 h | Activated sludge | ECHA Dossier | OECD 209 |
| 106-24-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | | | | | | |
| | Acute fish toxicity | LC50 mg/l | ~ 22 | 96 h | Danio rerio | ECHA Dossier | OECD Guideline 203 |
| | Acute algae toxicity | ErC50 mg/l | 13,1 | 72 h | Desmodesmus subspicatus | ECHA Dossier | OECD Guideline 201 |
| | Acute crustacea toxicity | EC50 mg/l | 10,8 | 48 h | Daphnia magna | ECHA Dossier | OECD Guideline 202 |
| | Acute bacteria toxicity | EC50 ) | 70 mg/l ( | 0 h | Activated sludge | ECHA Dossier | OECD Guideline 209 |
| 5989-27-5 | (R)-p-mentha-1,8-diene; d-limonene | | | | | | |
| | Acute fish toxicity | LC50 | 0,7 mg/l | 96 h | Pimephales promelas | | |
| | Acute crustacea toxicity | EC50 mg/l | 0,42 | 48 h | Daphnia magna | | |
| 5392-40-5 | citral | | | | | | |
| | Acute fish toxicity | LC50 | 4,6 mg/l | 96 h | Leuciscus idus | ECHA Dossier | |
| | Acute algae toxicity | ErC50 mg/l | 103,8 | 72 h | Desmodesmus subspicatus | ECHA Dossier | |
| | Acute crustacea toxicity | EC50 | 6,8 mg/l | 48 h | Daphnia magna | ECHA Dossier | |

**12.2. Persistence and degradability**

The product has not been tested.

| CAS No | Chemical name | | | |
|---|---|---|---|---|
| | Method | Value | d | Source |
| | Evaluation | | | |
| 68439-50-9 | Alcohols, C12-14, ethoxylated | | | |
| | OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D | 95 | 28 | ECHA Dossier |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | |
| 9004-82-4 | Sodium dodecylpoly(oxyethylene) sulfate | | | |
| | OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C | 100% | 28 | ECHA Dossier |
| | Readily biodegradable (according to OECD criteria). | | | |
| 50-21-5 | lactic acid | | | |
| | EU Method C.6 | 50% | 5 | ECHA Dossier |
| | UN Test N.1: Test method for readily combustible solids | | | |
| 106-24-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | | | |
| | OECD 301A / ISO 7827 / EEC 92/69 annex V, C.4-A | 90 - 100 % | 3 | ECHA Dossier |
| | Easily biodegradable (concerning to the criteria of the OECD) | | | |
| 5392-40-5 | citral | | | |
| | EU Method C.4-D | 90% | 28 | ECHA Dossier |
| | Readily biodegradable (according to OECD criteria). | | | |

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

| CAS No | Chemical name | Log Pow |
|---|---|---|
| 68439-50-9 | Alcohols, C12-14, ethoxylated | 5,96 |
| 50-21-5 | lactic acid | -0,62 |
| 106-24-1 | geraniol; (2E)-3,7-dimethylocta-2,6-dien-1-ol | 2,6 |
| 5989-27-5 | (R)-p-mentha-1,8-diene; d-limonene | 4,23 |
| 5392-40-5 | citral | 2,76 |

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

### 12.6. Endocrine disrupting properties

Endocrine disrupting properties: 4-(1,1,3,3-Tetramethylbutyl)-phenylol, ethoxylated.
The substance is suspected of having endocrine disrupting properties. The evaluation of endocrine disrupting properties is under development (ECHA).

### 12.7. Other adverse effects

No data available.

**Further information**

Do not allow to enter into surface water or drains.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal recommendations**

Observe in addition any national regulations! Consult the local waste disposal expert about waste disposal.
Non-contaminated packages may be recycled.
According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.
Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

200129 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); detergents containing hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

## SECTION 14: Transport information

**Land transport (ADR/RID)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1760 |
| **14.2. UN proper shipping name:** | CORROSIVE LIQUID, N.O.S. (ammonium mercaptoacetate, phosphoric acid) |
| **14.3. Transport hazard class(es):** | 8 |
| **14.4. Packing group:** | III |
| Hazard label: | 8 |




| | |
|---|---|
| Classification code: | C9 |
| Special Provisions: | 274 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| Transport category: | 3 |
| Hazard No: | 80 |
| Tunnel restriction code: | E |

**Inland waterways transport (ADN)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1760 |
| **14.2. UN proper shipping name:** | CORROSIVE LIQUID, N.O.S. (ammonium mercaptoacetate, phosphoric acid) |
| **14.3. Transport hazard class(es):** | 8 |
| **14.4. Packing group:** | III |
| Hazard label: | 8 |




| | |
|---|---|
| Classification code: | C9 |
| Special Provisions: | 274 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |

**Marine transport (IMDG)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1760 |
| **14.2. UN proper shipping name:** | CORROSIVE LIQUID, N.O.S. (ammonium mercaptoacetate, phosphoric acid) |
| **14.3. Transport hazard class(es):** | 8 |
| **14.4. Packing group:** | III |
| Hazard label: | 8 |




| | |
|---|---|
| Marine pollutant: | NO |
| Special Provisions: | 223, 274 |
| Limited quantity: | 5 L |
| Excepted quantity: | E1 |
| EmS: | F-A, S-B |

**Air transport (ICAO-TI/IATA-DGR)**

| | |
|---|---|
| **14.1. UN number or ID number:** | UN 1760 |
| **14.2. UN proper shipping name:** | CORROSIVE LIQUID, N.O.S. (ammonium mercaptoacetate, phosphoric acid) |
| **14.3. Transport hazard class(es):** | 8 |
| **14.4. Packing group:** | III |
| Hazard label: | 8 |




| | |
|---|---|
| Special Provisions: | A3 A803 |
| Limited quantity Passenger: | 1 L |
| Passenger LQ: | Y841 |
| Excepted quantity: | E1 |
| IATA-packing instructions - Passenger: | 852 |
| IATA-max. quantity - Passenger: | 5 L |
| IATA-packing instructions - Cargo: | 856 |
| IATA-max. quantity - Cargo: | 60 L |

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

refer to section 6 - 8

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

## SECTION 15: Regulatory information

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

**EU regulatory information**

Authorisations (REACH, annex XIV):

4-(1,1,3,3-Tetramethylbutyl)-phenylol, ethoxylated

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 75

| | |
|---|---|
| Directive 2010/75/EU on industrial emissions: | not determined |
| Directive 2004/42/EC on VOC in paints and varnishes: | not determined |
| Information according to Directive 2012/18/EU (SEVESO III): | Not subject to 2012/18/EU (SEVESO III) |

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].
REACH 1907/2006 Appendix XVII, No (mixture): 3, 75

**National regulatory information**

| | |
|---|---|
| Employment restrictions: | Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). |
| Water hazard class (D): | 2 - obviously hazardous to water |

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

**Changes**

Rev. 1,0; 21.03.2016, Initial release
Rev. 2,00; 27.12.2017, Changes in section: 1-16.
Rev. 2,1; 19.04.2021, Changes in section: 1-16.
Rev. 2,2; 26.08.2021, Changes in section: 2,3,16
Rev. 2,3; 02.03.2022; Changes in section: 2,3

Rev. 2,4; 11.04.2023, Changes in section: 1 - 3, 6, 8 - 12, 15, 16
Rev. 3,0; 22.04.2026, Changes in section: 1-16

**Abbreviations and acronyms**

Met. Corr. 1: Corrosive to metals, hazard category 1
Flam. Liq. 3: Flammable liquids, hazard category 3
Acute Tox. 3: Acute toxicity, hazard category 3
Acute Tox. 4: Acute toxicity, hazard category 4
Asp. Tox. 1: Aspiration hazard, hazard category 1
Skin Corr. 1B: Skin corrosion, sub-category 1B
Skin Corr. 1C: Skin corrosion, sub-category 1C
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
Skin Sens. 1: Skin sensitisation, hazard category 1
Skin Sens. 1B: Skin sensitisation, hazard category 1B
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3
ED ENV 1: Endocrine disruptor for the environment, hazard category 1
ADR: Accord européen sur le transport des marchandises dangereuses par Route ( European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW: Arbeitsplatzgrenzwert
CAS: Chemical Abstracts Service
CLP: Classification, Labelling and Packaging of substances and mixtures
DNEL: Derived No Effect Level
d: day(s)
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European LIst of Notified Chemical Substances
ECHA: European Chemicals Agency
EWC: European Waste Catalogue
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO: International Civil Aviation Organization
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)
h: hour
LOAEL: Lowest observed adverse effect level
LOAEC: Lowest observed adverse effect concentration
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NOAEL: No observed adverse effect level
NOAEC: No observed adverse effect concentration
NLP: No-Longer Polymers
N/A: not applicable
OECD: Organisation for Economic Co-operation and Development
PNEC: predicted no effect concentration
PBT: Persistent bioaccumulative toxic
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail
REACH: Registration, Evaluation, Authorisation of Chemicals
SVHC: substance of very high concern
TRGS: Technische Regeln für Gefahrstoffe
UN: United Nations
VOC: Volatile Organic Compounds

WGK: Water Hazard Class (Germany)

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

| Classification | Classification procedure |
|---|---|
| Met. Corr. 1; H290 | On basis of test data |
| Acute Tox. 4; H302 | Calculation method |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |
| Skin Sens. 1; H317 | Calculation method |

**Relevant H and EUH statements (number and full text)**

| | |
|---|---|
| H226 | Flammable liquid and vapour. |
| H290 | May be corrosive to metals. |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H304 | May be fatal if swallowed and enters airways. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life. |
| H412 | Harmful to aquatic life with long lasting effects. |
| EUH071 | Corrosive to the respiratory tract. |

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*