

Page 1 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Rostloeser XXL

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

Rust remover

Sector of use [SU]:

SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 - Consumer uses: Private households (=general public = consumers)

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC24 - Lubricants, greases, release products

PC35 - Washing and cleaning products

Process category [PROC]:

PROC 1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC 2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC 7 - Industrial spraying

PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC 8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC11 - Non industrial spraying

Article Categories [AC]:

AC99 - Not required.

Environmental Release Category [ERC]:

ERC 4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC 7 - Use of functional fluid at industrial site

ERC 8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

ERC 8d - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH Jerg-Wieland-Str. 4 89081 Ulm-Lehr

Tel.: (+49) 0731-1420-0 Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification



Page 2 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class Hazard category **Hazard statement**

Asp. Tox. H304-May be fatal if swallowed and enters airways. 1

Aerosol 1 H222-Extremely flammable aerosol.

Aerosol 1 H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

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.

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

EUH066-Repeated exposure may cause skin dryness or cracking.

Without adequate ventilation, formation of explosive mixtures may be possible.

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substances

n.a. 3.2 Mixtures

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics | |
|--|-----------------------|
| Registration number (REACH) | 01-2119457273-39-XXXX |
| Index | |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 918-481-9 |
| CAS | (64742-48-9) |
| content % | 50-70 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Asp. Tox. 1, H304 |

| Carbon dioxide | Substance for which an EU exposure limit value applies. |
|--|---|
| Registration number (REACH) | |
| Index | |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 204-696-9 |



(B)

Page 3 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| CAS | 124-38-9 |
|--|----------|
| content % | 1-<20 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | |

| 2-Butoxyethanol | Substance for which an EU exposure limit value applies. |
|--|---|
| Registration number (REACH) | 01-2119475108-36-XXXX |
| Index | 603-014-00-0 |
| EINECS, ELINCS, NLP, REACH-IT List-No. | 203-905-0 |
| CAS | 111-76-2 |
| content % | 1-<10 |
| Classification according to Regulation (EC) 1272/2008 (CLP), M-factors | Acute Tox. 4, H302 |
| | Eye Irrit. 2, H319 |
| | Skin Irrit. 2, H315 |
| | Acute Tox. 4, H332 |

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here. Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."

Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting. Consult doctor immediately.

Danger of aspiration.

In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

Irritation of the respiratory tract

with long-term contact:

Product removes fat.

Irritation of the skin.

Frostbite

Reddening

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable extinguishing media

Adapt to the nature and extent of fire.



Œ

Page 4 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Water jet spray/foam/CO2/dry extinguisher

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon Oxides of sulphur

Hydrocarbons

Toxic pyrolysis products.

Danger of explosion by prolonged heating.

Explosive vapour/air or gas/air mixtures.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Keep away from sources of ignition - Do not smoke.

Do not use on hot surfaces.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Store in a well-ventilated place.

Observe special regulations for aerosols!

Not to be stored in gangways or stair wells.

Do not store with oxidizing agents.

Observe special storage conditions.

Keep protected from direct sunlight and temperatures over 50°C.



Page 5 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

7.3 Specific end use(s) No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40): 800 mg/m3

| Chemical Name Hyd | rocarbons, C1 | 10-C13, n-alkanes, isoalkanes, cycli | cs, <2% aromatics | Content %:50-70 |
|---------------------------------------|---------------|--------------------------------------|-----------------------|------------------------|
| WEL-TWA: 800 mg/m3 | ., . | WEL-STEL: | , | |
| Monitoring procedures: | - | Draeger - Hydrocarbons 0,1%/c (81 | 1 03 571) | |
| | - | Draeger - Hydrocarbons 2/a (81 03 | 581) | |
| | - | Compur - KITA-187 S (551 174) | | |
| BMGV: | | | Other information: (O | EL acc. to RCP-method, |
| | | | paragraphs 84-87, EH4 | 10) |
| | oon dioxide | | | Content %:1-<20 |
| WEL-TWA: 5000 ppm (9150 mg/m3) (W | EL), 5000 | WEL-STEL: 15000 ppm (2740 | 0 mg/m3) (WEL) | |
| ppm (9000 mg/m3) (EU) | | | | |
| Monitoring procedures: | - | Draeger - Carbon Dioxide 0,1%/a (| | |
| | - | Draeger - Carbon Dioxide 0,5%/a (| | |
| | - | Draeger - Carbon Dioxide 1%/a (Cl | | |
| | - | Draeger - Carbon Dioxide 100/a (8 | | |
| | | Draeger - Carbon Dioxide 5%/A (C | H 20 301) | |
| | | Compur - KITA-126 B (549 475) | | |
| | | Compur - KITA-126 SA (549 467) | | |
| | | Compur - KITA-126 SB (548 816) | | |
| | | Compur - KITA-126 SF (549 491) | | |
| | - | Compur - KITA-126 SG (550 210) | | |
| | - | Compur - KITA-126 SH (549 509) | | |
| | | Compur - KITA-126 UH (549 517) | - 4 | |
| | | NIOSH 6603 (Carbon dioxide) - 199 | | 1000 |
| DMOV | - | OSHA ID-172 (Carbon dioxide in w | | |
| BMGV: | | | Other information: | |
| | utoxyethanol | | | Content %:1-<10 |
| WEL-TWA: 25 ppm (123 mg/m3) (WEL) | , 20 ppm (98 | WEL-STEL: 50 ppm (246 mg/r | m3) (WEL, EU) | |
| mg/m3) (EU) | | 1/174 (00 11/0) (5 (0 070) | | |
| Monitoring procedures: | - | Compur - KITA-190 U(C) (548 873) | | (0.1 |
| | | DFG MethNr. 2 (D) (Loesungsmitt | | |
| | | 2002 - EU project BC/CEN/ENTR/0 | ` | 004) |
| | | NIOSH 1403 (ALCOHOLS IV) - 200 | | TNUNO\\ 4000 |
| | | NIOSH 2549 (VOLATILE ORGANIC | | ENING)) - 1996 |
| BMGV: 240 mmol butoxyacetic acid/mol | - | OSHA 83 (2-Butoxyethanol (Butyl C | Cthor information | /\A/E1 \ |
| | | urine, post shift (BMGV) | Other information: Sk | |
| | nist, mineral | | | Content %: |
| WEL-TWA: 5 mg/m3 (Mineral oil, exclud | ing metal | WEL-STEL: | | |
| working fluids, ACGIH) | | | | |
| Monitoring procedures: | - | Draeger - Oil Mist 1/a (67 33 031) | | |
| BMGV: | | | Other information: | |
| | | | | |

| 2-Butoxyethanol | | | | | | |
|---------------------|--------------------------|------------------|------------|-------|----------|------|
| Area of application | Exposure route / | Effect on health | Descriptor | Value | Unit | Note |
| | Environmental | | | | | |
| | compartment | | | | | |
| | Environment - freshwater | | PNEC | 8,8 | mg/l | |
| | Environment - marine | | PNEC | 0,88 | mg/l | |
| | Environment - sediment, | | PNEC | 34,6 | mg/kg dw | |
| | freshwater | | | | | |



Œ

Page 6 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| | Environment - soil | | PNEC | 2,8 | mg/kg dw |
|---------------------|----------------------------------|------------------------------|------|------|------------|
| | Environment - sewage | | PNEC | 463 | mg/l |
| | treatment plant | | | | |
| | Environment - sediment, | | PNEC | 3,46 | mg/kg dw |
| | marine | | | | |
| | Environment - sporadic | | PNEC | 9,1 | mg/l |
| | (intermittent) release | | | | |
| | Environment - soil | | PNEC | 2,33 | mg/kg |
| | Environment - oral (animal feed) | | PNEC | 20 | mg/kg |
| Consumer | Human - inhalation | Long term, local effects | DNEL | 147 | mg/m3 |
| Consumer | Human - dermal | Short term, systemic effects | DNEL | 44,5 | mg/kg bw/d |
| Consumer | Human - inhalation | Short term, systemic effects | DNEL | 426 | mg/m3 |
| Consumer | Human - oral | Short term, systemic effects | DNEL | 13,4 | mg/kg bw/d |
| Consumer | Human - inhalation | Short term, local effects | DNEL | 123 | mg/m3 |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 38 | mg/kg bw/d |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 49 | mg/m3 |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 3,2 | mg/kg bw/d |
| Workers / employees | Human - dermal | Short term, systemic effects | DNEL | 89 | mg/kg bw/d |
| Workers / employees | Human - inhalation | Short term, systemic effects | DNEL | 663 | mg/m3 |
| Workers / employees | Human - inhalation | Short term, local effects | DNEL | 246 | mg/m3 |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 75 | mg/kg bw/d |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 98 | mg/m3 |

- WEL-TWA = Workplace Exposure Limit Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

 (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE).
- (8) = Inhalable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (9) = Respirable fraction (Directive 2017/164/EU, Directive 2004/37/CE). (11) = Inhalable fraction (Directive 2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (Directive 2004/37/CE). | WEL-STEL = Workplace Exposure Limit Short-term exposure limit (15-minute reference period).
- (8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU), 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
- ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.
- (13) = The substance can cause sensitisation of the skin and of the respiratory tract (Directive 2004/37/CE), (14) = The substance can cause sensitisation of the skin (Directive 2004/37/CE).

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn. Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. EN 14042.

EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.



Page 7 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

With danger of contact with eyes.

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Solvent resistant protective gloves (EN 374).

If applicable

Protective nitrile gloves (EN 374).

Minimum layer thickness in mm:

0,3

Permeation time (penetration time) in minutes:

> 120

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

If OES or MEL is exceeded.

Filter A P3 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

n.a.

9.1 Information on basic physical and chemical properties

Physical state: Aerosol. Active substance: liquid.

Colour: Colourless
Odour: Characteristic
Odour threshold: Not determined

pH-value: n.a. Melting point/freezing point: Not

Not determined Initial boiling point and boiling range: Not determined Flash point: Not determined Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Not determined Vapour density (air = 1):

Density: 0,829-0,86 g/ml (20°C)

Bulk density:

Solubility(ies): Not determined



Page 8 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Water solubility:
Partition coefficient (n-octanol/water):
Not determined
Auto-ignition temperature:
Not determined
Decomposition temperature:
Viscosity:
Not determined
Not determined

Explosive properties: Product is not explosive.

Oxidising properties: No

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Not determined

Surface tension:

Not determined

Not determined

Not determined

Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

In use, may form flammable/explosive vapour-air mixture.

This product is not reactive based on experiences.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

Hazardous reactions will not occur during storage and handling under normal conditions.

10.4 Conditions to avoid

Pressure increase will result in danger of bursting.

Heating, open flame, ignition sources

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

| Rostloeser XXL | | | | | | |
|----------------------------------|----------|-------|---------|----------|-------------|-------------------|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by oral route: | ATE | >2000 | mg/kg | | | calculated value |
| Acute toxicity, by dermal route: | | | | | | n.d.a. |
| Acute toxicity, by inhalation: | ATE | >20 | mg/l/4h | | | calculated value, |
| | | | | | | Vapours |
| Acute toxicity, by inhalation: | ATE | >5 | mg/l/4h | | | calculated value, |
| | | | | | | Aerosol |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin | | | | | | n.d.a. |
| sensitisation: | | | | | | |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - | | | | | | n.d.a. |
| single exposure (STOT-SE): | | | | | | |
| Specific target organ toxicity - | | | | | | n.d.a. |
| repeated exposure (STOT-RE): | | | | | | |
| Aspiration hazard: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |

| Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, <2% aromatics | | | | | | | |
|--|----------|-------|------|----------|-------------|-------|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes | |



Page 9 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| Acute toxicity, by oral route: | LD50 | >5000 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
|---|------|-------|----------|------------|--------------------------------------|-------------------|
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | OECD 402 (Acute | |
| | | | | | Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LC50 | >5000 | mg/m3/8h | Rat | OECD 403 (Acute Inhalation Toxicity) | |
| Skin corrosion/irritation: | | | | | | Repeated |
| | | | | | | exposure may |
| | | | | | | cause skin |
| | | | | | | dryness or |
| | | | | | | cracking. |
| Serious eye damage/irritation: | | | | | OECD 405 (Acute Eye | Not irritant |
| , | | | | | Irritation/Corrosion) | |
| Respiratory or skin | | | | Guinea pig | OECD 406 (Skin | No (skin contact) |
| sensitisation: | | | | . • | Sensitisation) | , |
| Germ cell mutagenicity: | | | | | OECD 471 (Bacterial | Negative, |
| ğ , | | | | | Reverse Mutation Test) | Analogous |
| | | | | | , | conclusion |
| Carcinogenicity: | | | | | OECD 453 (Combined | Negative, |
| , | | | | | Chronic | Analogous |
| | | | | | Toxicity/Carcinogenicity | conclusion |
| | | | | | Studies) | |
| Reproductive toxicity: | | | | | OECD 414 (Prenatal | Negative, |
| , | | | | | Developmental Toxicity | Analogous |
| | | | | | Study) | conclusion |
| Reproductive toxicity: | | | | | OECD 421 | Negative, |
| , , , , , , , | | | | | (Reproduction/Developm | Analogous |
| | | | | | ental Toxicity Screening | conclusion |
| | | | | | Test) | |
| Specific target organ toxicity - | | | | | 7 | No indications of |
| single exposure (STOT-SE): | | | | | | such an effect. |
| Specific target organ toxicity - | | | | | OECD 408 (Repeated | No indications of |
| repeated exposure (STOT-RE): | | | | | Dose 90-Day Oral | such an effect., |
| , | | | | | Toxicity Study in | Analogous |
| | | | | | Rodents) | conclusion |
| Aspiration hazard: | | | | | , | Yes |
| Symptoms: | | | | | | unconsciousness |
| · · · | | | | | | , headaches, |
| | | | | | | dizziness |

| Carbon dioxide | | | | | | |
|-------------------|----------|-------|------|----------|-------------|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Symptoms: | | | | J | | unconsciousness , blisters by skin- contact, vomiting, frostbite, annoyance, palpitations, itching, headaches, cramps, ear |
| | | | | | | noises, dizziness |

| 2-Butoxyethanol | | | | | | | |
|---|----------|-------|---------|---------------|---|---------------------------|--|
| Toxicity / effect | Endpoint | Value | Unit | Organism | Test method | Notes | |
| Acute toxicity, by oral route: | ATE | 1200 | mg/kg | | | | |
| Acute toxicity, by dermal route: | LD50 | 2275 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | | |
| Acute toxicity, by inhalation: Skin corrosion/irritation: | LC50 | 10-20 | mg/l/4h | Rat Rabbit | Regulation (EC) | Vapours Skin Irrit. 2, | |
| | | | | | 440/2008 B.4 (DERMAL IRRITATION/CORROSI ON) | Product removes fat. | |



Page 10 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| Serious eye damage/irritation: | | | | Rabbit | OECD 405 (Acute Eye | Eye Irrit. 2 |
|-------------------------------------|-------|------|-------|-------------|---------------------------|-------------------|
| | | | | | Irritation/Corrosion) | • |
| Respiratory or skin | | | | Guinea pig | OECD 406 (Skin | No (skin contact) |
| sensitisation: | | | | | Sensitisation) | , |
| Germ cell mutagenicity: | | | | Mouse | OECD 474 (Mammalian | Negative |
| · · · · · · · · · · · · · · · · · · | | | | | Erythrocyte | |
| | | | | | Micronucleus Test) | |
| Germ cell mutagenicity: | | | | Salmonella | OECD 471 (Bacterial | Negative |
| Com con matagomony. | | | | typhimurium | Reverse Mutation Test) | rioganio |
| Germ cell mutagenicity: | | | | туринианан | OECD 473 (In Vitro | Negative |
| Com oon matagementy. | | | | | Mammalian | riogativo |
| | | | | | Chromosome | |
| | | | | | Aberration Test) | |
| Germ cell mutagenicity: | | | | | OECD 476 (In Vitro | Namativa |
| Germ cell mutagenicity. | | | | | | Negative |
| | | | | | Mammalian Cell Gene | |
| | | | | | Mutation Test) | |
| Carcinogenicity: | | | | Rat | OECD 451 | Negative |
| | | | | | (Carcinogenicity Studies) | |
| Carcinogenicity: | NOAEC | 125 | ppm | Mouse | OECD 451 | Negative |
| | | | | | (Carcinogenicity Studies) | |
| Aspiration hazard: | | | | | | No |
| Symptoms: | | | | | | acidosis, ataxia, |
| | | | | | | breathing |
| | | | | | | difficulties, |
| | | | | | | respiratory |
| | | | | | | distress, |
| | | | | | | drowsiness, |
| | | | | | | unconsciousness |
| | | | | | | , annoyance, |
| | | | | | | coughing, |
| | | | | | | headaches, |
| | | | | | | , |
| | | | | | | gastrointestinal |
| | | | | | | disturbances, |
| | | | | | | insomnia, |
| | | | | | | mucous |
| | | | | | | membrane |
| | | | | | | irritation, |
| | | | | | | dizziness |
| Specific target organ toxicity - | NOAEL | <69 | mg/kg | Rat | OECD 408 (Repeated | |
| repeated exposure (STOT-RE), | | | bw/d | | Dose 90-Day Oral | |
| oral: | | | | | Toxicity Study in | |
| | | | | | Rodents) | |
| Specific target organ toxicity - | NOAEL | >150 | mg/kg | Rabbit | OECD 411 (Subchronic | |
| repeated exposure (STOT-RE), | | | bw/d | | Dermal Toxicity - 90-day | |
| dermal: | | | | 1 | Study) | |

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

| Rostloeser XXL | | | | | | | |
|----------------------------|----------|------|-------|------|----------|-------------|--------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | - | | | | _ | | n.d.a. |
| 12.1. Toxicity to daphnia: | | | | | | | n.d.a. |
| 12.1. Toxicity to algae: | | | | | | | n.d.a. |



Page 11 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028 Valid from: 03.05.2021

PDF print date: 14.06.2021

Rostloeser XXL

| 12.2. Persistence and | | | | The surfactant(s) |
|-------------------------|-----|--|--|-----------------------------------|
| degradability: | | | | contained in this |
| aog.aaay. | | | | mixture |
| | | | | complies(comply) |
| | | | | with the |
| | | | | biodegradability |
| | | | | criteria as laid |
| | | | | down in |
| | | | | |
| | | | | Regulation (EC) No.648/2004 on |
| | | | | |
| | | | | detergents. Data |
| | | | | to support this |
| | | | | assertion are |
| | | | | held at the |
| | | | | disposal of the |
| | | | | competent |
| | | | | authorities of the |
| | | | | Member States |
| | | | | and will be made |
| | | | | available to |
| | | | | them, at their |
| | | | | direct request or |
| | | | | at the request of |
| | | | | a detergent |
| | | | | manufacturer. |
| 12.3. Bioaccumulative | | | | n.d.a. |
| potential: | | | | |
| 12.4. Mobility in soil: | | | | n.d.a. |
| 12.5. Results of PBT | | | | n.d.a. |
| and vPvB assessment | | | | |
| 12.6. Other adverse | | | | n.d.a. |
| effects: | | | | |
| Other information: | AOX | | | According to the |
| | | | | recipe, contains |
| | | | | no AOX. |

| Hydrocarbons, C10-C13, | n-alkanes, iso | oalkanes, cy | clics, <2% a | romatics | | | |
|--------------------------------------|----------------|--------------|--------------|----------|----------------------------------|--|-------|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| 12.1. Toxicity to fish: | LC50 | 96h | >1000 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to fish: | NOELR | 28d | 0,1 | mg/l | Oncorhynchus mykiss | | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | >1000 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to daphnia: | NOELR | 21d | 0,18 | mg/l | Daphnia magna | | |
| 12.1. Toxicity to algae: | ErL50 | 72h | >1000 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOELR | 72h | 1000 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | 28d | 80 | % | | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | |
| 12.3. Bioaccumulative potential: | Log Pow | | 5,5-7,2 | | | | |
| 12.4. Mobility in soil: | Log Koc | | >3 | | | | |



Page 12 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| 12.5. Results of PBT and vPvB assessment | | | | | No PBT substance, No vPvB substance |
|--|--|-----|------|--|---|
| 12.6. Other adverse | | | | | Product floats on |
| effects: | | | | | the water |
| | | | | | surface. |
| Water solubility: | | ~10 | mg/l | | Slight |

| Carbon dioxide | | | | | | | | |
|-------------------------|----------|------|-------|------|-----------------|-------------|------------|--|
| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes | |
| 12.1. Toxicity to fish: | LC50 | 96h | 35 | mg/l | Salmo gairdneri | | | |
| Other information: | Log Kow | | 0,83 | | | | | |
| 12.6. Other adverse | | | | | | | Greenhouse | |
| effects: | | | | | | | effect | |
| Global warming | | | 1 | | | | | |
| potential (GWP): | | | | | | | | |

| Toxicity / effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|--------------------------------------|-----------|------|---------------|----------------|----------------------------------|---|--------------------------|
| 12.1. Toxicity to fish: | LC50 | 96h | 1474 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |
| 12.1. Toxicity to fish: | NOEC/NOEL | 21d | >100 | mg/l | Brachydanio rerio | OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study) | |
| 12.1. Toxicity to daphnia: | EC50 | 48h | 1550 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| 12.1. Toxicity to daphnia: | NOEC/NOEL | 21d | 100 | mg/l | Daphnia magna | OECD 211 (Daphnia magna Reproduction Test) | |
| 12.1. Toxicity to algae: | EC50 | 72h | 1840 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.1. Toxicity to algae: | NOEC/NOEL | 72h | 286 | mg/l | Pseudokirchneriell a subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| 12.2. Persistence and degradability: | | 28d | 95 | % | | OECD 301 E (Ready Biodegradability - Modified OECD Screening Test) | Readily biodegradable |
| 12.2. Persistence and degradability: | | 28d | >99 | % | | OECD 302 B (Inherent Biodegradability - Zahn- Wellens/EMPA Test) | Readily biodegradable |
| 12.3. Bioaccumulative potential: | BCF | | 3,2 | | | | Slight |
| 12.3. Bioaccumulative potential: | Log Pow | | 0,81 | | | OECD 107 (Partition Coefficient (n- octanol/water) - Shake Flask Method) | Not to be expected |
| 12.4. Mobility in soil: | H (Henry) | | 0,00000 16 | atm*m3/m ol | | , | |
| 12.4. Mobility in soil: | Koc | | 67 | | | | Expert judgeme |



(B)-

Page 13 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

| 12.5. Results of PBT | | | | | | | No PBT |
|-----------------------|------|-----|------|------|-----------------------|---------------|---------------------------------|
| and vPvB assessment | | | | | | | substance, No vPvB substance |
| Toxicity to bacteria: | EC10 | 16h | >700 | mg/l | Pseudomonas putida | DIN 38412 T.8 | |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be

allocated under certain circumstances. (2014/955/EU)

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.

Recommendation:

Return to manufacturer with residual pressure.

Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information

General statements

14.1. UN number: 1950

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

UN 1950 AEROSOLS

14.3. Transport hazard class(es):

14.4. Packing group:

Classification code: 5F LQ: 1L

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

AEROSOLS

14.3. Transport hazard class(es):
2.1
14.4. Packing group:

EmS: F-D, S-U Marine Pollutant: n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:

Aerosols, flammable

14.3. Transport hazard class(es): 2.1

14.4. Packing group:

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Persons employed in transporting dangerous goods must be trained.

All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.











(B)

Page 14 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered

according to storage, handling etc.):

| | <u>/</u> | | |
|-------------------|------------------|--------------------------------------|--------------------------------------|
| Hazard categories | Notes to Annex I | Qualifying quantity (tonnes) of | Qualifying quantity (tonnes) of |
| | | dangerous substances as | dangerous substances as |
| | | referred to in Article 3(10) for the | referred to in Article 3(10) for the |
| | | application of - Lower-tier | application of - Upper-tier |
| | | requirements | requirements |
| P3b | 11.1, 11.2 | 5000 (netto) | 50000 (netto) |

~ 58 %

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC):

REGULATION (EC) No 648/2004

30 % and more aliphatic hydrocarbons

Observe incident regulations.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

1

Revised sections:

Employee training in handling dangerous goods is required.

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

| Classification in accordance with regulation | Evaluation method used |
|--|---|
| (EC) No. 1272/2008 (CLP) | |
| Asp. Tox. 1, H304 | Classification according to calculation procedure. |
| Aerosol 1, H222 | Classification according to calculation procedure. |
| Aerosol 1, H229 | Classification based on the form or physical state. |

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

Asp. Tox. — Aspiration hazard



(B)

Page 15 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Aerosol - Aerosols

Acute Tox. — Acute toxicity - oral

Eye Irrit. — Eye irritation Skin Irrit. — Skin irritation

Acute Tox. — Acute toxicity - inhalation

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the

International Carriage of Dangerous Goods by Road)

AOX Adsorbable organic halogen compounds approx. approximately

Art., Art. no. Article number

ASTM ASTM International (American Society for Testing and Materials)

ATE Acute Toxicity Estimate

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BSEF The International Bromine Council

bw body weight

CAS Chemical Abstracts Service

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances

and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

DMEL Derived Minimum Effect Level DNEL Derived No Effect Level

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community
ECHA European Chemicals Agency
EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

etc. et cetera EU European Union

EVAL Ethylene-vinyl alcohol copolymer

Fax. Fax number gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

IARC International Agency for Research on Cancer IATA International Air Transport Association IBC (Code) International Bulk Chemical (Code)

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform Chemical Information Database IUPAC International Union for Pure Applied Chemistry LC50 Lethal Concentration to 50 % of a test population

LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)

LQ Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

OECD Organisation for Economic Co-operation and Development

org. organic

PBT persistent, bioaccumulative and toxic

PE Polyethylene

PNEC Predicted No Effect Concentration

ppm parts per million



Page 16 of 16

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 03.05.2021 / 0029

Replacing version dated / version: 08.03.2021 / 0028

Valid from: 03.05.2021 PDF print date: 14.06.2021

Rostloeser XXL

Polyvinylchloride

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List REACH-IT List-No.

Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT. Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International

Carriage of Dangerous Goods by Rail)

SVHC Substances of Very High Concern

Telephone Tel.

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by: Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.