according to Regulation (EC) No 1907/2006

Degreaser

Revision date: 17.09.2018

Product code: 0223-Entfetter

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

1.1. Product identifier

Degreaser

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

Use of the substance/mixture

Metal surface treatment products

1.3. Details of the supplier of the safety data sheet

| Company name: | MARAWE GmbH & Co. KG | |
|--------------------------|------------------------------------|--------------------------|
| Street: | Donaustaufer Str. 378 - Gebäude 64 | |
| Place: | D-93055 Regensburg | |
| Telephone: | 0941 / 29020439 | Telefax: 0941 / 29020593 |
| e-mail: | info@marawe.de | |
| Contact person: | Dr. Peter Raster, Dr. Stefan | |
| | Weiss, Dr. Jonas Mark | |
| e-mail: | info@marawe.de | |
| Internet: | www.marawe.de | |
| 1.4. Emergency telephone | 0176 / 23510701 | |
| | | |

number:

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories: Flammable liquid: Flam. Liq. 3 Skin corrosion/irritation: Skin Irrit. 2 Serious eye damage/eye irritation: Eye Irrit. 2 Hazard Statements: Flammable liquid and vapour. Causes skin irritation. Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

| Signal | word | Warning |
|--------|-------|---------|
| Signal | woru. | vanning |

Pictograms:



Hazard statements

| H226 | Flammable liquid and vapour. |
|------|--------------------------------|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |

Precautionary statements

| recautionaly sta | |
|------------------|--|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P103 | Read label before use. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P233 | Keep container tightly closed. |

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| P240 | Ground and bond container and receiving equipment. | |
| P241 | Use explosion-proof electrical/ventilating/lighting equipment. | |
| P242 | Use non-sparking tools. | |
| P243 | Take action to prevent static discharges. | |
| P264 | Wash Hände thoroughly after handling. | |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. | |
| P302+P352 | IF ON SKIN: Wash with plenty of water. | |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. | |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. | |
| P362+P364 | Take off contaminated clothing and wash it before reuse. | |
| 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. | |
| P370+P378 | In case of fire: Use Pulverlöscher to extinguish. | |
| P403+P235 | Store in a well-ventilated place. Keep cool. | |
| P501 | Dispose of contents/container to sachgerechter Entsorgung. | |

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

| CAS No | Chemical name | | | | | |
|---------------------|--------------------------|--------------|----------|-----------|--|--|
| | EC No | Index No | REACH No | | | |
| | Classification according | | | | | |
| 64-17-5 | ethanol, ethyl alcohol | 35 - < 40 % | | | | |
| | 200-578-6 | 603-002-00-5 | | | | |
| | Flam. Liq. 2; H225 | | | | | |
| 1310-73-2 | Sodium hydroxide; caus | tic soda | | 1 - < 5 % | | |
| | 215-185-5 | | | | | |
| Skin Corr. 1A; H314 | | | | | | |

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

SECTION 4: First aid measures

4.1. Description of first aid measures

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water.

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

Causes skin burns. Causes drowsiness or dizziness.

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

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Treat symptomatically. Wash with plenty of water.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder. CO2 or powder Foam Water.

5.2. Special hazards arising from the substance or mixture

Flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Danger of explosion

6.3. Methods and material for containment and cleaning up

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.

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

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use an "effective exhaust ventilation system" according to 2001/59/EC (Annex 7A).

Advice on storage compatibility

Do not store together with: Oxidizing agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Metal surface treatment products

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Exposure limits (EH40)

| CAS No | Substance | ppm | mg/m³ | fibres/ml | Category | Origin |
|-----------|------------------|------|-------|-----------|---------------|--------|
| 64-17-5 | Ethanol | 1000 | 1920 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |
| 1310-73-2 | Sodium hydroxide | - | - | | TWA (8 h) | WEL |
| | | - | 2 | | STEL (15 min) | WEL |

8.2. Exposure controls

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: goggles.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. 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.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state: Colour: Odour: pH-Value (at 25 °C): | Liquid clear alcoholic | 13 |
|---|------------------------------|--|
| Changes in the physical state Melting point: Initial boiling point and boiling range: | | not determined 78 °C |
| Flash point: | | 21 °C |
| Flammability Solid: Gas: | | not applicable not applicable |
| Lower explosion limits: Upper explosion limits: | | 3 vol. % 21 vol. % |
| Auto-ignition temperature Solid: Gas: Decomposition temperature: | | not applicable not applicable not determined |

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| Oxidizing properties Not oxidising. | | | | | | |
| Vapour pressure: (at 25 °C) | 5,95 hPa | | | | | |
| Density: | not determined | | | | | |
| Water solubility: | easily soluble | | | | | |
| Solubility in other solvents not determined | | | | | | |
| Partition coefficient: | not determined | | | | | |
| Vapour density: | not determined | | | | | |
| Evaporation rate: | not determined | | | | | |
| 9.2. Other information | | | | | | |
| Solid content: | not determined | | | | | |

SECTION 10: Stability and reactivity

10.1. Reactivity

Possibility of hazardous reactions. Flammable. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Acid, Peroxides, Oxidizing agent.

10.4. Conditions to avoid

Vapours can form explosive mixtures with air. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

Keep away from: Acid, Oxidizing agent, Peroxides.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

| CAS No | Chemical name | Chemical name | | | | | | |
|---------|-------------------------|------------------------|-----------|---------|--------|--------|--|--|
| | Exposure route | Dose | | Species | Source | Method | | |
| 64-17-5 | ethanol, ethyl alcohol | ethanol, ethyl alcohol | | | | | | |
| | | LD50 mg/kg | 6200 | Rat | IUCLID | | | |
| | inhalative (4 h) vapour | LC50 | 95,6 mg/l | Rat | RTECS | | | |

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

SECTION 12: Ecological information

12.1. Toxicity

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The product is not: Ecotoxic.

| CAS No | Chemical name | | | | | | |
|-----------|--------------------------------|---------------------------|-----------|-------------------------|--------|--------|--|
| | Aquatic toxicity | Dose | [h] [d] | Species | Source | Method | |
| 64-17-5 | ethanol, ethyl alcohol | | | | | | |
| | Acute crustacea toxicity | EC50 9268 - 14221 mg/l | 48 h | Daphnia magna | IUCLID | | |
| 1310-73-2 | Sodium hydroxide; caustic soda | | | | | | |
| | Acute fish toxicity | LC50 45,4 mg/l | | Onchorhynchus mykiss | | | |

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

| CAS No | Chemical name | Log Pow |
|---------|------------------------|---------|
| 64-17-5 | ethanol, ethyl alcohol | -0,31 |

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

070304 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic dyes and pigments (except 06 11); other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of used product

070304 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic dyes and pigments (except 06 11); other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging

070304 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of organic dyes and pigments (except 06 11); other organic solvents, washing liquids and mother liquors; hazardous waste

Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number:

UN 1170

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| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | | |
| <u>14.3. Transport hazard class(es):</u> | 3 | | |
| 14.4. Packing group: | III | | |
| Hazard label: | 3 | | |
| Classification code: | F1 | | |
| Special Provisions: | 144 601 | | |
| Limited quantity: Excepted quantity: | 5 L E1 | | |
| Transport category: | 3 | | |
| Hazard No: | 30 | | |
| Tunnel restriction code: | D/E | | |
| Inland waterways transport (ADN) | | | |
| <u>14.1. UN number:</u> | UN 1170 | | |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | | |
| 14.3. Transport hazard class(es): | 3 | | |
| 14.4. Packing group: | III | | |
| Hazard label: | 3 | | |
| Classification code: | F1 | | |
| Special Provisions: | 144 601 | | |
| Limited quantity: Excepted quantity: | 5 L E1 | | |
| | | | |
| Marine transport (IMDG) | | | |
| <u>14.1. UN number:</u> | | | |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | | |
| 14.3. Transport hazard class(es): | 3 | | |
| 14.4. Packing group: | | | |
| Hazard label: Special Provisions: | 3 144, 223 | | |
| Limited quantity: | 5 L | | |
| Excepted quantity: | E1 | | |
| EmS: | F-E, S-D | | |
| Air transport (ICAO-TI/IATA-DGR) | | | |
| <u>14.1. UN number:</u> | UN 1170 | | |
| 14.2. UN proper shipping name: | ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION) | | |
| 14.3. Transport hazard class(es): | 3 | | |
| 14.4. Packing group: | III | | |
| Hazard label: | 3 | | |
| Special Provisions: | A3 A58 A180 | | |
| Limited quantity Passenger: | 10 L | | |
| Passenger LQ: Excepted quantity: | Y344 E1 | | |
| IATA-packing instructions - Passenger: | 355 | | |
| IATA-packing instituctions - rassenger: | 60 L | | |
| IATA-packing instructions - Cargo: | 366 | | |
| IATA-max. quantity - Cargo: | 220 L | | |
| 14.6. Special precautions for user | | | |
| Warning: Combustible liquid. | | | |
| 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code | | | |
| not applicable | not applicable | | |
| | | | |

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SECTION 15: Regulatory information

| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture | | |
|--|---|--|
| EU regulatory information | | |
| 2010/75/EU (VOC): | 39 % | |
| 2004/42/EC (VOC): | 39 % | |
| Additional information | | |
| To follow: 850/2004/EC, 79/117/EE | EC, 689/2008/EC | |
| National regulatory information | | |
| Employment restrictions: | Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). | |
| Water contaminating class (D): | 1 - slightly water contaminating | |
| | | |

15.2. Chemical safety assessment

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

SECTION 16: Other information

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50%

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

| Classification | Classification procedure |
|---------------------|--------------------------|
| Flam. Liq. 3; H226 | On basis of test data |
| Skin Irrit. 2; H315 | Calculation method |
| Eye Irrit. 2; H319 | Calculation method |

Relevant H and EUH statements (number and full text)

| H225 | Highly flammable liquid and vapour. |
|------|--|
| H226 | Flammable liquid and vapour. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eve irritation. |

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.

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