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

1.1 Product identifier

   Trade name : HHS 2000 - 500 ML
   Product code : 0893106

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

   Use of the Substance/Mixture : Lubricant
   Professional use product

1.3 Details of the supplier of the safety data sheet

   Company : Adolf Wuerth GmbH & Co. KG
             Reinhold-Würth-Str. 12-17
             74653 Künzelsau
   Telephone : +49 794015 0
   Telefax : +49 794015 10 00
   E-mail address of person responsible for the SDS : prodsafe@wuerth.com

1.4 Emergency telephone number

   +49 (0)6132 – 84463

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

   Classification (REGULATION (EC) No 1272/2008)
   Aerosols, Category 1
   H222: Extremely flammable aerosol.
   H229: Pressurised container: May burst if heated.
   Skin irritation, Category 2
   H315: Causes skin irritation.
   Specific target organ toxicity - single exposure, Category 3
   H336: May cause drowsiness or dizziness.
   Long-term (chronic) aquatic hazard, Category 2
   H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

   Labelling (REGULATION (EC) No 1272/2008)
HHS 2000 - 500 ML

Version 9.1  Revision Date: 18.09.2018  SDS Number: 265436-00022  Date of last issue: 09.08.2018  Date of first issue: 11.06.2010

Hazard pictograms:

- Fire
- Exclamation mark
- Plant

Signal word: Danger

Hazard statements:

- H222 Extremely flammable aerosol.
- H229 Pressurised container: May burst if heated.
- H315 Causes skin irritation.
- H336 May cause drowsiness or dizziness.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

- 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.
- P261 Avoid breathing spray.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.

Response:

- P391 Collect spillage.

Storage:

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

Hazardous components which must be listed on the label:

- Hydrocarbons, C6, isoalkanes, <5% n-hexane

2.3 Other hazards

None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Registration number</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbons, C6, isoalkanes, &lt;5% n-hexane</td>
<td>Not Assigned</td>
<td></td>
<td></td>
<td>01-2119484651-34</td>
<td>Flam. Liq. 2; H225 Skin Irrit. 2; H315 STOT SE 3; H336 Asp. Tox. 1; H304 Aquatic Chronic 2; H411</td>
<td>&gt;= 30 - &lt; 50</td>
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</tbody>
</table>

For explanation of abbreviations see section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists.

If inhaled : If inhaled, remove to fresh air. Get medical attention if symptoms occur.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In case of eye contact : Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.

If swallowed : If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Causes skin irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire- : Flash back possible over considerable distance.
Vapours may form explosive mixtures with air. Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.

Hazardous combustion products: Carbon oxides

5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Remove all sources of ignition. Use personal protective equipment. Follow safe handling advice and personal protective equipment recommendations.

6.2 Environmental precautions

Environmental precautions: Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or oil barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absorbent. Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
6.4 Reference to other sections
See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Technical measures: See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation: Use with local exhaust ventilation. Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential.
Advice on safe handling: Do not get on skin or clothing. Do not breathe vapours or spray mist. Do not swallow. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment. Keep away from heat and sources of ignition. Take precautionary measures against static discharges. Take care to prevent spills, waste and minimize release to the environment. Do not spray on an open flame or other ignition source.
Hygiene measures: Ensure that eye flushing systems and safety showers are located close to the working place. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

7.2 Conditions for safe storage, including any incompatibilities
Requirements for storage areas and containers: Store locked up. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sunlight.
Advice on common storage: Do not store with the following product types: Self-reactive substances and mixtures, Organic peroxides, Oxidizing agents, Flammable solids, Pyrophoric liquids, Pyrophoric solids, Self-heating substances and mixtures, Substances and mixtures, which in contact with water, emit flammable gases, Explosives.
Storage class (TRGS 510): 2B, Aerosol cans and lighters
Storage period: 24 Months
Recommended storage temperature: < 40 °C
Further information on storage stability: No decomposition if stored and applied as directed.

7.3 Specific end use(s)
Specific use(s): No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| Occupational Exposure Limits |
|-----------------------------|-----------------|-----------------|-----------------|-----------------|
| Components                  | CAS-No.         | Value type (Form of exposure) | Control parameters | Basis          |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane | Not Assigned | AGW | 700 mg/m3 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 2;(II) | | | |
| Further information | Group exposure limit for hydrocarbon solvent mixtures, Commission for dangerous substances. See also No. 2.9 of the TRGS 900 |
| Isobutane                  | 75-28-5        | AGW | 1.000 ppm 2.400 mg/m3 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 4;(II) | | | |
| Further information | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). |
| Propane                    | 74-98-6        | AGW | 1.000 ppm 1.800 mg/m3 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 4;(II) | | | |
| Further information | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). |
| Butane                     | 106-97-8       | AGW | 1.000 ppm 2.400 mg/m3 | DE TRGS 900 |
| Peak-limit: excursion factor (category) | 4;(II) | | | |
| Further information | Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission). |
Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

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<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Hydrocarbons, C6, isoalkanes, &lt;5% n-hexane</td>
<td>Workers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>5306 mg/m³</td>
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<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>13964 mg/kg bw/day</td>
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<tr>
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<td>Consumers</td>
<td>Inhalation</td>
<td>Long-term systemic effects</td>
<td>1131 mg/m³</td>
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<tr>
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<td>Skin contact</td>
<td>Long-term systemic effects</td>
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<tr>
<td></td>
<td>Consumers</td>
<td>Ingestion</td>
<td>Long-term systemic effects</td>
<td>1301 mg/kg bw/day</td>
</tr>
<tr>
<td>Benzene, mono-C10-13-alkyl derivs., distn. residues</td>
<td>Workers</td>
<td>Skin contact</td>
<td>Long-term systemic effects</td>
<td>96 mg/kg bw/day</td>
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</table>

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
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<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Residual oils (petroleum), hydrotreated</td>
<td>Oral (Secondary Poisoning)</td>
<td>9,33 mg/kg food</td>
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<tr>
<td>Benzene, mono-C10-13-alkyl derivs., distn. residues</td>
<td>Fresh water</td>
<td>0,000075 mg/l</td>
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<td>Marine water</td>
<td>0,000007 mg/l</td>
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<td>Intermittent use/release</td>
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<td>Sewage treatment plant</td>
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<td></td>
<td>Fresh water sediment</td>
<td>1761 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>1761 mg/kg</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering measures
Minimize workplace exposure concentrations.
Use only in an area equipped with explosion-proof exhaust ventilation if advised by assessment of the local exposure potential
Use with local exhaust ventilation.

Personal protective equipment

Eye protection: Wear the following personal protective equipment:
Safety glasses

Hand protection
Material: Nitrile rubber
Break through time: 480 min
Glove thickness: 0,45 mm

Remarks: Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
Skin and body protection: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Wear the following personal protective equipment: Flame retardant antistatic protective clothing, unless assessment demonstrates that the risk of explosive atmospheres or flash fires is low. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Respiratory protection: Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Filter type: Self-contained breathing apparatus

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Aerosol containing a liquefied gas

Propellant: Isobutane, Propane, Butane

Colour: brown

Odour: solvent-like

Odour Threshold: No data available

pH: No data available

Melting point/freezing point: No data available

Initial boiling point and boiling range: -40 °C

Flash point: -33 °C

Flash point is only valid for liquid portion in the aerosol can.

Evaporation rate: Not applicable

Flammability (solid, gas): Extremely flammable aerosol.

Upper explosion limit / Upper flammability limit: 9.4 %(V)

Lower explosion limit / Lower flammability limit: 1.0 %(V)

Vapour pressure: Not applicable
Relative vapour density : Not applicable
Density : 0.742 g/cm³ (20 °C)
Solubility(ies)
   Water solubility : insoluble
Partition coefficient: n-octanol/water : Not applicable
Auto-ignition temperature : 200 °C
Decomposition temperature : No data available
Viscosity
   Viscosity, kinematic : > 20.5 mm²/s (40 °C)
Explosive properties : Not explosive
Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information
   Particle size : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity
   Not classified as a reactivity hazard.

10.2 Chemical stability
   Stable under normal conditions.

10.3 Possibility of hazardous reactions
   Hazardous reactions : Extremely flammable aerosol.
   Vapours may form explosive mixture with air.
   If the temperature rises there is danger of the vessels bursting due to the high vapor pressure.
   Can react with strong oxidizing agents.

10.4 Conditions to avoid
   Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials
   Materials to avoid : Oxidizing agents

10.6 Hazardous decomposition products
   No hazardous decomposition products are known.
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Information on likely routes of exposure:
- Inhalation
- Skin contact
- Ingestion
- Eye contact

Acute toxicity
Not classified based on available information.

Components:
Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Acute oral toxicity: LD50 (Rat): 16.750 mg/kg
Remarks: Based on data from similar materials

Acute inhalation toxicity: LC50 (Rat): 259,354 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Remarks: Based on data from similar materials

Acute dermal toxicity: LD50 (Rabbit): > 3.350 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Based on data from similar materials

Skin corrosion/irritation
Causes skin irritation.

Components:
Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Skin irritation

Serious eye damage/eye irritation
Not classified based on available information.

Components:
Hydrocarbons, C6, isoalkanes, <5% n-hexane:

Species: Rabbit
Result: No eye irritation
Remarks: Based on data from similar materials

Respiratory or skin sensitisation

Skin sensitisation
Not classified based on available information.
Respiratory sensitisation
Not classified based on available information.

**Components:**

**Hydrocarbons, C6, isoalkanes, <5% n-hexane:**

- **Test Type:** Local lymph node assay (LLNA)
- **Exposure routes:** Skin contact
- **Species:** Mouse
- **Result:** negative
- **Remarks:** Based on data from similar materials

**Germ cell mutagenicity**
Not classified based on available information.

**Components:**

**Hydrocarbons, C6, isoalkanes, <5% n-hexane:**

**Genotoxicity in vitro**
- **Test Type:** Bacterial reverse mutation assay (AMES)  
  Result: negative
  Remarks: Based on data from similar materials

- **Test Type:** Chromosome aberration test in vitro  
  Result: negative
  Remarks: Based on data from similar materials

- **Test Type:** In vitro mammalian cell gene mutation test  
  Result: negative
  Remarks: Based on data from similar materials

**Genotoxicity in vivo**
- **Test Type:** Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)  
  **Species:** Rat
  **Application Route:** inhalation (vapour)  
  **Result:** negative

**Carcinogenicity**
Not classified based on available information.

**Components:**

**Hydrocarbons, C6, isoalkanes, <5% n-hexane:**

- **Species:** Rat
  **Application Route:** inhalation (vapour)  
  **Exposure time:** 2 yr  
  **Result:** negative  
  **Remarks:** Based on data from similar materials

- **Species:** Mouse
  **Application Route:** inhalation (vapour)  
  **Exposure time:** 2 yr  
  **Result:** negative  
  **Remarks:** Based on data from similar materials
Reproductive toxicity
Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:
Effects on fertility: Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapour)
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development: Test Type: Embryo-foetal development
Species: Rat
Application Route: inhalation (vapour)
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure
May cause drowsiness or dizziness.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure
Not classified based on available information.

Repeated dose toxicity

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:
Species: Rat, male
NOAEL: 10,504 mg/l
Application Route: inhalation (vapour)
Exposure time: 90 Days
Remarks: Based on data from similar materials

Aspiration toxicity
Not classified based on available information.

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.
SECTION 12: Ecological information

12.1 Toxicity

**Components:**

**Hydrocarbons, C6, isoalkanes, <5% n-hexane:**

**Toxicity to fish**

\[ \text{LL50 (Oncorhynchus mykiss (rainbow trout))}: > 10 - 100 \text{ mg/l} \]

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

**Toxicity to daphnia and other aquatic invertebrates**

\[ \text{EL50 (Daphnia magna (Water flea))}: > 1 - 10 \text{ mg/l} \]

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

**Toxicity to algae**

\[ \text{EL50 (Selenastrum capricornutum (green algae))}: > 10 - 100 \text{ mg/l} \]

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

\[ \text{NOELR (Selenastrum capricornutum (green algae))}: 0,1 \text{ mg/l} \]

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

**Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

\[ \text{NOELR}: > 0,1 - 1 \text{ mg/l} \]

Exposure time: 21 d

Species: Daphnia magna (Water flea)

Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

12.2 Persistence and degradability

**Components:**

**Hydrocarbons, C6, isoalkanes, <5% n-hexane:**

**Biodegradability**

Result: Readily biodegradable.

Biodegradation: 98 %

Exposure time: 28 d

Method: OECD Test Guideline 301F

Remarks: Based on data from similar materials
12.3 Bioaccumulative potential

Components:

Hydrocarbons, C6, isoalkanes, <5% n-hexane:
Partition coefficient: n-octanol/water: log Pow: 3.6

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
Not relevant

12.6 Other adverse effects
No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: Dispose of in accordance with local regulations. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product. Please ensure aerosol cans are sprayed completely empty (including propellant)

Waste Code: The following Waste Codes are only suggestions:

- used product: 160504, gases in pressure containers (including halons) containing dangerous substances
- unused product: 160504, gases in pressure containers (including halons) containing dangerous substances
- uncleaned packagings: 150110, packaging containing residues of or contaminated by dangerous substances

Acc. Packaging Ordinance properly emptied packaging: Properly emptied, non-contaminated packaging of non-hazardous products can be supplied to a system for the col-
SECTION 14: Transport information

14.1 UN number

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14.2 UN proper shipping name

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14.3 Transport hazard class(es)

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14.4 Packing group

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section of sales packaging.
HHS 2000 - 500 ML

Version: 9.1
Revision Date: 18.09.2018
SDS Number: 265436-00022
Date of last issue: 09.08.2018
Date of first issue: 11.06.2010

Labels: 2.1
EmS Code: F-D, S-U

IATA (Cargo)
Packing instruction (cargo aircraft): 203
Packing instruction (LQ): Y203
Packing group: Not assigned by regulation
Labels: Flammable Gas

IATA (Passenger)
Packing instruction (passenger aircraft): 203
Packing instruction (LQ): Y203
Packing group: Not assigned by regulation
Labels: Flammable Gas

14.5 Environmental hazards

ADN
Environmentally hazardous: yes

ADR
Environmentally hazardous: yes

RID
Environmentally hazardous: yes

IMDG
Marine pollutant: yes

14.6 Special precautions for user
The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Remarks: Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59): Not applicable

REACH - List of substances subject to authorisation (Annex XIV): Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer: Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants: Not applicable

Regulation (EC) No 649/2012 of the European Parlia-
ment and the Council concerning the export and import of dangerous chemicals

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII):


P3a FLAMMABLE AEROSOLS

E2 ENVIRONMENTAL HAZARDS

18 Liquefied extremely flammable gases (including LPG) and natural gas

Water contaminating class (Germany):

- WGK 2 obviously hazardous to water classification according to AwSV, Annex 1 (5.2)

Volatile organic compounds:

- Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)

Volatile organic compounds (VOC) content: 72.92%

Other regulations:

- Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

<table>
<thead>
<tr>
<th>Other information</th>
<th>Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.</th>
</tr>
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</table>

**Full text of H-statements**

| H225 | Highly flammable liquid and vapour. |
| H304 | May be fatal if swallowed and enters airways. |
| H315 | Causes skin irritation. |
| H336 | May cause drowsiness or dizziness. |
| H411 | Toxic to aquatic life with long lasting effects. |

**Full text of other abbreviations**

| Aquatic Chronic | Long-term (chronic) aquatic hazard |
| Asp. Tox. | Aspiration hazard |
| Flam. Liq. | Flammable liquids |
| Skin Irrit. | Skin irritation |
| STOT SE | Specific target organ toxicity - single exposure |
| DE TRGS 900 | Germany. TRGS 900 - Occupational exposure limit values. |
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information


Classification of the mixture:

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<tr>
<th>Classification procedure:</th>
<th>Classification of the mixture:</th>
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<tbody>
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<td>Aerosol 1</td>
<td>H222, H229</td>
</tr>
<tr>
<td>Skin Irrit. 2</td>
<td>H315</td>
</tr>
<tr>
<td>STOT SE 3</td>
<td>H336</td>
</tr>
<tr>
<td>Aquatic Chronic 2</td>
<td>H411</td>
</tr>
</tbody>
</table>

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text.
Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

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