



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Commission Regulation (EU) 2020/878 - Austria

SAFETY DATA SHEET

ROTSCHUTZGRUNDIERUNG AEROSOL

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

1.1 Product identifier

Product name : ROTSCHUTZGRUNDIERUNG AEROSOL

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

| Identified uses |
|----------------------|
| Consumer use |
| Uses advised against |
| None |

Product use : Solvent borne coating for exterior use.

1.3 Details of the supplier of the safety data sheet

Akzo Nobel Coatings GmbH
Aubergstrasse 7
A-5161 Elixhausen
Telefon: +43 (0)810 / 500 139
Telefax: +43 (0)662 / 489 89 11
www.hammerite.at

e-mail address of person responsible for this SDS : sdbinfo@akzonobel.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : +43 1 406 43 43

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Aerosol 1, H222, H229
Skin Irrit. 2, H315
STOT SE 3, H336
Aquatic Chronic 2, H411

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.


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1/19

AkzoNobel

SECTION 2: Hazards identification

2.2 Label elements

| | |
|--|--|
| Hazard pictograms | :  |
| Signal word | : Danger |
| Hazard statements | : H222, H229 - Extremely flammable aerosol. Pressurized container: may burst if heated. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects. |
| <u>Precautionary statements</u> | |
| General | : P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand. |
| Prevention | : P280 - Wear protective gloves. 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. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P261 - Avoid breathing dust or mist. P264 - Wash hands thoroughly after handling. P251 - Do not pierce or burn, even after use. |
| Response | : P391 - Collect spillage. P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell. P362 + P364 - Take off contaminated clothing and wash it before reuse. |
| Storage | : P405 - Store locked up. P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. |
| Disposal | : P501 - Dispose of contents and container in accordance with all local, regional, national or international regulations. |
| Hazardous ingredients | : hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics Hydrocarbons, C6, isoalkanes, <5% n-hexane |
| Supplemental label elements | : Not applicable. |
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : Not applicable. |
| <u>Special packaging requirements</u> | |
| Containers to be fitted with child-resistant fastenings | : Not applicable. |
| Tactile warning of danger | : Not applicable. |

2.3 Other hazards

| | |
|---|---|
| Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII | : This mixture does not contain any substances that are assessed to be a PBT or a vPvB. |
|---|---|

SECTION 2: Hazards identification

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|---|--|-----------|---|---|---------|
| Petroleum gases, liquefied | REACH #: 01-2119485911-31 EC: 270-704-2 CAS: 68476-85-7 | ≥25 - ≤50 | Flam. Gas 1A, H220 Press. Gas (Comp.), H280 | - | [1] |
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | REACH #: 01-2119463258-33 EC: 919-857-5 CAS: 64742-48-9 Index: 649-327-00-6 | ≥15 - <20 | Flam. Liq. 3, H226 STOT SE 3, H336 Asp. Tox. 1, H304 EUH066 | - | [1] |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane | REACH #: 01-2119484651-34 EC: 931-254-9 | ≤5 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | EC: 926-605-8 | ≤5 | Flam. Liq. 2, H225 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | EC: 921-024-6 | ≤5 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | REACH #: 01-2119475515-33 EC: 927-510-4 | ≤5 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 | - | [1] |
| cyclohexane | REACH #: 01-2119463273-41 EC: 203-806-2 CAS: 110-82-7 Index: 601-017-00-1 | ≤3 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 | M [Acute] = 1 M [Chronic] = 1 | [1] [2] |
| n-hexane | EC: 203-777-6 CAS: 110-54-3 Index: 601-037-00-0 | <1 | Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361f STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 | STOT RE 2, H373: C ≥ 5% | [1] [2] |

SECTION 3: Composition/information on ingredients

| | | | | | |
|--|--|--|---|--|--|
| | | | Aquatic Chronic 2, H411 See Section 16 for the full text of the H statements declared above. | | |
|--|--|--|---|--|--|

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a physical, health or environmental hazard
- [2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses if easy to do. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

SECTION 4: First aid measures

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Ingestion may cause nausea, diarrhea and vomiting.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

SECTION 5: Firefighting measures

5.3 Advice for firefighters

- Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and materials for containment and cleaning up

- Small spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections

- : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance.

7.1 Precautions for safe handling

- Protective measures

: Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.
- Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

| Category | Notification and MAPP threshold | Safety report threshold |
|----------|---------------------------------|-------------------------|
| P3a | 150 tonne | 500 tonne |
| E2 | 200 tonne | 500 tonne |

7.3 Specific end use(s)

- Recommendations

: Not available.
- Industrial sector specific solutions

: Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

cyclohexane

Regulation on Limit Values - MAC (Austria, 4/2021).
PEAK: 2800 mg/m³, 4 times per shift, 15 minutes.
PEAK: 800 ppm, 4 times per shift, 15 minutes.
TWA: 700 mg/m³, 4 times per shift, 8 hours.
TWA: 200 ppm, 4 times per shift, 8 hours.

n-hexane

Regulation on Limit Values - MAC (Austria, 4/2021).
TWA: 20 ppm 8 hours.
TWA: 72 mg/m³ 8 hours.
PEAK: 80 ppm, 4 times per shift, 15 minutes.
PEAK: 288 mg/m³, 4 times per shift, 15 minutes.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

| Product/ingredient name | Type | Exposure | Value | Population | Effects |
|---|------|-----------------------|-------------------|--------------------|----------|
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | DNEL | Long term Inhalation | 0.41 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 1.9 mg/m³ | Workers | Systemic |
| | DNEL | Long term Inhalation | 178.57 mg/m³ | General population | Local |
| | DNEL | Long term Oral | 300 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 300 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 300 mg/kg bw/day | Workers | Systemic |
| | DNEL | Short term Inhalation | 640 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 837.5 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 1066.67 mg/m³ | Workers | Local |
| | DNEL | Short term Inhalation | 1152 mg/m³ | General population | Systemic |
| | DNEL | Short term Inhalation | 1286.4 mg/m³ | Workers | Systemic |
| | DNEL | Long term Oral | 59.4 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Inhalation | 206 mg/m³ | General population | Local |
| | DNEL | Long term Inhalation | 206 mg/m³ | General population | Systemic |
| | DNEL | Short term Inhalation | 412 mg/m³ | General population | Local |
| | DNEL | Short term Inhalation | 412 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 700 mg/m³ | Workers | Local |
| | DNEL | Long term Inhalation | 700 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 1186 mg/kg bw/day | General population | Systemic |
| | DNEL | Short term Inhalation | 1400 mg/m³ | Workers | Local |
| cyclohexane | DNEL | Short term Inhalation | 1400 mg/m³ | Workers | Systemic |
| | DNEL | Long term Dermal | 2016 mg/kg bw/day | Workers | Systemic |

SECTION 8: Exposure controls/personal protection

| | | | | | |
|----------|------|----------------------|------------------|--------------------|----------|
| n-hexane | DNEL | Long term Oral | 4 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 5.3 mg/kg bw/day | General population | Systemic |
| | DNEL | Long term Dermal | 11 mg/kg bw/day | Workers | Systemic |
| | DNEL | Long term Inhalation | 16 mg/m³ | General population | Systemic |
| | DNEL | Long term Inhalation | 75 mg/m³ | Workers | Systemic |

PNECs

| Product/ingredient name | Compartment Detail | Value | Method Detail |
|-------------------------|------------------------|------------------|--------------------|
| manganese neodecanoate | Fresh water | 85.3 µg/l | Assessment Factors |
| | Marine water | 2.7 µg/l | Assessment Factors |
| | Sewage Treatment Plant | 121.3 mg/l | Assessment Factors |
| | Fresh water sediment | 230.6 mg/kg dwt | Assessment Factors |
| | Marine water sediment | 23.06 mg/kg dwt | Assessment Factors |
| | Soil | 167.33 mg/kg dwt | Assessment Factors |

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness ≥ 0.38 mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness ≥ 0.12 mm. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/

SECTION 8: Exposure controls/personal protection

chemical damage and poor maintenance.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Wear a respirator conforming to EN140 with type A/P2 filter or better.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flatting should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Yellow.
- Odor** : Characteristic.
- Odor threshold** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : 34°C (93.2°F)
- Flammability** : Not available.
- Lower and upper explosion limit** : Greatest known range: Lower: 1.3% Upper: 8.4% (cyclohexane)
- Flash point** : Closed cup: -18°C (-0.4°F) [Pensky-Martens]
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : Not applicable. [DIN EN 1262]
- Viscosity** : Kinematic (room temperature): 27 mm²/s [DIN EN ISO 3219]
Kinematic (40°C): 29 mm²/s [DIN EN ISO 3219]
- Solubility(ies)** :

| Media | Result |
|------------|-----------------------------|
| cold water | Not soluble [OECD (TG 105)] |

SECTION 9: Physical and chemical properties

Partition coefficient: n-octanol/ water : Not applicable.

Vapor pressure :

| Ingredient name | Vapor Pressure at 20°C | | | Vapor pressure at 50°C | | |
|---|------------------------|------------|------------|------------------------|-----|--------|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| Petroleum gases, liquefied | 3097.22 | 412.9 | ASTM D 323 | | | |
| cyclohexane | 93.01 | 12.4 | | | | |
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | 0.75 to 2.25 | 0.1 to 0.3 | | | | |

Relative density : 0.736

Vapor density : Not available.

Particle characteristics

Median particle size : Not applicable.

Percentage of particles with aerodynamic diameter ≤ 10

µm

9.2 Other information

Heat of combustion : 1.48 kJ/g

Aerosol product

Type of aerosol : Spray

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

10.5 Incompatible materials : No specific data.

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

SECTION 11: Toxicological information

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness.

Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption

SECTION 11: Toxicological information

through the skin.
If splashed in the eyes, the liquid may cause irritation and reversible damage.
Ingestion may cause nausea, diarrhea and vomiting.
This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------------------|---------|--------------|-----------|
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | LC50 Inhalation Vapor | Rat | 8500 mg/m³ | 4 hours |
| cyclohexane | LD50 Oral | Rat | >6 g/kg | - |
| | LC50 Inhalation Vapor | Mouse | 70000 mg/m³ | 2 hours |
| | LD50 Oral | Mouse | 813 mg/kg | - |
| | LD50 Oral | Rabbit | 5.5 mg/kg | - |
| n-hexane | LD50 Oral | Rat | 6240 mg/kg | - |
| | LD50 Oral | Rat | >5000 mg/kg | - |
| | LC50 Inhalation Gas. | Rat | 48000 ppm | 4 hours |
| | LC50 Inhalation Vapor | Mouse | 150000 mg/m³ | 2 hours |
| | LC50 Inhalation Vapor | Rat | 627000 mg/m³ | 3 minutes |
| | LD50 Oral | Rat | 29700 mg/kg | - |
| | LD50 Oral | Rat | 15840 mg/kg | - |

Conclusion/Summary : Not available.

Acute toxicity estimates

N/A

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|-------------------------|----------------------|---------|-------|----------|-------------|
| n-hexane | Eyes - Mild irritant | Rabbit | - | 10 mg | - |

Conclusion/Summary : Not available.

Sensitization

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|---|------------|-------------------|------------------|
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | Category 3 | - | Narcotic effects |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane | Category 3 | - | Narcotic effects |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | Category 3 | - | Narcotic effects |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | Category 3 | - | Narcotic effects |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Category 3 | - | Narcotic effects |
| cyclohexane | Category 3 | - | Narcotic effects |

SECTION 11: Toxicological information

| | | | |
|----------|------------|---|------------------|
| n-hexane | Category 3 | - | Narcotic effects |
|----------|------------|---|------------------|

Specific target organ toxicity (repeated exposure)

| Product/ingredient name | Category | Route of exposure | Target organs |
|-------------------------|------------|-------------------|---------------|
| n-hexane | Category 2 | - | - |

Aspiration hazard

| Product/ingredient name | Result |
|---|--------------------------------|
| hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C6, isoalkanes, <5% n-hexane | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | ASPIRATION HAZARD - Category 1 |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | ASPIRATION HAZARD - Category 1 |
| cyclohexane | ASPIRATION HAZARD - Category 1 |
| n-hexane | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

- Eye contact : No known significant effects or critical hazards.
- Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact : Causes skin irritation.
- Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact : Adverse symptoms may include the following:
irritation
redness
- Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

- Potential immediate effects : Not available.
- Potential delayed effects : Not available.

Long term exposure

SECTION 11: Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

No additional information.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|------------------------------------|---|----------|
| cyclohexane | Acute LC50 34720 µg/l Fresh water | Fish - Lepomis macrochirus | 96 hours |
| | Acute LC50 8300 µg/l Marine water | Fish - Morone saxatilis - Juvenile (Fledgling, Hatchling, Weanling) | 96 hours |
| | Acute LC50 4530 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 32710 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 42330 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 113000 µg/l Fresh water | Fish - Oreochromis mossambicus | 96 hours |
| n-hexane | Acute LC50 2500 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|--|--------------------|---------|-----------|
| Petroleum gases, liquefied hydrocarbon, C9-C11, n-alkane, iso-alkane, cyclic, <2% of aromatics | 1.09 | - | low |
| cyclohexane | 3.44 | 167 | low |
| n-hexane | 4 | 501.187 | high |

12.4 Mobility in soil

SECTION 12: Ecological information

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Disposal considerations : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

| Waste code | Waste designation |
|---------------|---|
| EWC 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances |



Packaging

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal considerations : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

SECTION 14: Transport information

| | ADR/RID | IMDG |
|---------------------------------|--|---|
| 14.1 UN number or ID number | UN1950 | UN1950 |
| 14.2 UN proper shipping name | AEROSOLS | AEROSOLS |
| 14.3 Transport hazard class(es) | 2  | 2.1  |
| 14.4 Packing group | - | - |
| 14.5 Environmental hazards | Yes. | Marine Pollutant(s): Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane, Hydrocarbons, C6, isoalkanes, <5% n-hexane |

Additional information

- ADR/RID

: The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Tunnel code (D)
- IMDG

: The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- 14.6 Special precautions for user

: **Transport within user’s premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

- 14.7 Transport in bulk according to IMO instruments

: Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)
Annex XIV - List of substances subject to authorization

Annex XIV
None of the components are listed.
Substances of very high concern
None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

SECTION 15: Regulatory information

VOC for Ready-for-Use Mixture : Not available.

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EU)
Not listed.

Prior Informed Consent (PIC) (649/2012/EU)
Not listed.

Persistent Organic Pollutants
Not listed.

Aerosol dispensers :

3



Extremely flammable

Seveso Directive
This product is controlled under the Seveso Directive.
Danger criteria

| Category |
|-----------|
| P3a E2 |

National regulations
Biocidal products regulation
VbF class : A I
Limitation of the use of organic solvents : Permitted.

International regulations
Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

SECTION 15: Regulatory information

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical Safety Assessment : No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

| Classification | Justification |
|--|---|
| Aerosol 1, H222, H229 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411 | On basis of test data Calculation method Calculation method Calculation method |

Full text of abbreviated H statements

| | |
|---|---|
| H220 H222, H229 H225 H226 H280 H304 H315 H336 H361f H373 H400 H410 H411 EUH066 | Extremely flammable gas. Extremely flammable aerosol. Pressurized container: may burst if heated. Highly flammable liquid and vapor. Flammable liquid and vapor. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Repeated exposure may cause skin dryness or cracking. |
|---|---|

Full text of classifications [CLP/GHS]

| | |
|--|--|
| Aerosol 1 Aquatic Acute 1 Aquatic Chronic 1 Aquatic Chronic 2 Asp. Tox. 1 Flam. Gas 1A Flam. Liq. 2 Flam. Liq. 3 Press. Gas (Comp.) Repr. 2 | AEROSOLS - Category 1 AQUATIC HAZARD (ACUTE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2 ASPIRATION HAZARD - Category 1 FLAMMABLE GASES - Category 1A FLAMMABLE LIQUIDS - Category 2 FLAMMABLE LIQUIDS - Category 3 GASES UNDER PRESSURE - Compressed gas TOXIC TO REPRODUCTION - Category 2 |
|--|--|

| SECTION 16: Other information | |
|-------------------------------|---|
| Skin Irrit. 2 STOT RE 2 | SKIN CORROSION/IRRITATION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 |
| STOT SE 3 | SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3 |

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Notice to reader

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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