

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

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

1.1 Product identifier**3-IN-ONE® Anti-Seize Copper Grease****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture:**

Lubricant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

Ⓢ

WD-40 Company Limited, PO Box 440, Kiln Farm, Milton Keynes, MK11 3LF, United Kingdom
Phone: +44 (0) 1908 555400, Fax: +44 (0) 1908 266900
www.wd40.co.uk

Ⓡ

P.R. Rielly Limited KarKraft House, Kilbarrack Industrial Estate, Kilbarrack, Dublin 5, Ireland
Phone: 01-832 0006, Fax: 01-832 0016
web@team.ie

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

1.4 Emergency telephone**Emergency information services / official advisory body:**

Telephone number of the company in case of emergencies:

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

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture**2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)**

| Hazard class | Hazard category | Hazard statement |
|-----------------|-----------------|---|
| Asp. Tox. | 1 | H304-May be fatal if swallowed and enters airways. |
| Aquatic Chronic | 3 | H412-Harmful to aquatic life with long lasting effects. |
| Aerosol | 1 | H222-Extremely flammable aerosol. |
| Aerosol | 1 | H229-Pressurised container: May burst if heated. |

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)

F+,Extremely flammable

Dangerous for the environment, R52/53

R67

2.2 Label elements**2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)**



Danger

H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P102-Keep out of reach of children.

P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use.

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

P501-Dispose of contents/container safely.

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

2.3 Other hazards

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

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

REGULATION (EC) No 648/2004

n.a.

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

| | |
|--|--|
| Hydrocarbons, C6, isoalkanes, <5% n-hexane | |
| Registration number (REACH) | 01-2119484651-34-XXXX |
| Index | --- |
| EINECS, ELINCS, NLP | 931-254-9 (REACH-IT List-No.) |
| CAS | (64742-49-0) |
| content % | 5-<10 |
| Classification according to Directive 67/548/EEC | Highly flammable, F, R11 Dangerous for the environment, N, R51 Dangerous for the environment, R53 Harmful, Xn, R65 R67 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Flam. Liq. 2, H225 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 2, H411 |
| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | |
| Registration number (REACH) | 01-2119475515-33-XXXX |
| Index | --- |
| EINECS, ELINCS, NLP | 927-510-4 (REACH-IT List-No.) |
| CAS | CAS --- |
| content % | 5-<10 |

| | |
|---|---|
| Classification according to Directive 67/548/EEC | Highly flammable, F, R11 Irritant, Xi, R38 Dangerous for the environment, N, R51 Dangerous for the environment, R53 Harmful, Xn, R65 R67 |
| Classification according to Regulation (EC) 1272/2008 (CLP) | Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411 |

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

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

Ingestion

Typically no exposure pathway.
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.
Danger of aspiration
In case of vomiting, keep head low so that the stomach content does not reach the lungs.

4.2 Most important symptoms and effects, both acute and delayed

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

The following may occur:

Irritation of the eyes
Irritation of the respiratory tract
Coughing
Headaches
Dizziness
Effects/damages the central nervous system
Unconsciousness
With long-term contact:
Drying of the skin.
Dermatitis (skin inflammation)
Ingestion:
Nausea
Vomiting
Danger of aspiration
Oedema of the lungs
chemical pneumonitis (condition similar to pneumonia)
Other dangerous properties cannot be ruled out.

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

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.
Subsequent observation for pneumonia and pulmonary oedema.
Pulmonary oedema prophylaxis

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2
Extinction powder
Water jet spray
Alcohol resistant foam

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon
Toxic gases
Danger of bursting (explosion) when heated
Explosive vapour/air mixture

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire
Full protection, if necessary
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.
If applicable, caution - risk of slipping

6.2 Environmental precautions

Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.
Active substance:

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

6.4 Reference to other sections

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

SECTION 7: Handling and storage

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

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.
Avoid inhalation of the vapours.
Avoid contact with eyes or skin.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingsuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.

Do not store with flammable or self-igniting materials.
 Observe special regulations for aerosols!
 Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").
 Keep protected from direct sunlight and temperatures over 50°C.
 Store in a well ventilated place.
 Store cool

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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

| | | |
|---|--|---------------------|
| Chemical Name | Hydrocarbons, C6, isoalkanes, <5% n-hexane | Content %:5- <10 |
| WEL-TWA: 800 mg/m ³ | WEL-STEL: --- | --- |
| BMGV: --- | Other information: (WEL acc. to RCP-method, EH40) | |
| Chemical Name | Hydrocarbons, C6, isoalkanes, <5% n-hexane | Content %:5- <10 |
| OELV-8h: 1200 mg/m ³ (AGW) | OELV-15min: 2(II) (AGW) | --- |
| BLV: --- | Other information: --- | |
| Chemical Name | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Content %:5- <10 |
| WEL-TWA: 800 mg/m ³ | WEL-STEL: --- | --- |
| BMGV: --- | Other information: (WEL acc. to RCP-method, EH40) | |
| Chemical Name | Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | Content %:5- <10 |
| OELV-8h: 1200 mg/m ³ (AGW) | OELV-15min: 2(II) (AGW) | --- |
| BLV: --- | Other information: --- | |
| Chemical Name | Petroleum gases, liquified | Content %: |
| WEL-TWA: 1000 ppm (1750 mg/m ³) (Liquefied petroleum gas (LPG)) | WEL-STEL: 1250 ppm (2180 mg/m ³) (Liquefied petroleum gas (LPG)) | --- |
| BMGV: --- | Other information: --- | |
| Chemical Name | Petroleum gases, liquified | Content %: |
| OELV-8h: 1000 ppm (1800 mg/m ³) | OELV-15min: 1250 ppm (2250 mg/m ³) | --- |
| BLV: --- | Other information: --- | |
| Chemical Name | Oil mist, mineral | Content %: |
| WEL-TWA: 5 mg/m ³ (ACGIH) | WEL-STEL: 10 mg/m ³ (ACGIH) | --- |
| BMGV: --- | Other information: --- | |
| Chemical Name | Oil mist, mineral | Content %: |
| OELV-8h: 0,2 mg/m ³ (Mineral oil, used in metal working (inhalable)), 5 mg/m ³ (Mineral oil, pure, highly & severely refined (inhalable)) | OELV-15min: --- | --- |
| BLV: --- | Other information: --- | |

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
 ** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction. | OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction. | BLV = Biological limit value | Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit

Values.

| Hydrocarbons, C6, isoalkanes, <5% n-hexane | | | | | | |
|--|--|-----------------------------|------------|-------|------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 13964 | mg/kg bw/d | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 5306 | mg/m3 | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 1377 | mg/kg bw/d | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 1301 | mg/kg bw/d | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 1131 | mg/m3 | |

| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | | | | | | |
|--|--|-----------------------------|------------|-------|--------------|------|
| Area of application | Exposure route / Environmental compartment | Effect on health | Descriptor | Value | Unit | Note |
| Workers / employees | Human - dermal | Long term, systemic effects | DNEL | 300 | mg/kg bw/day | |
| Workers / employees | Human - inhalation | Long term, systemic effects | DNEL | 2085 | mg/m3 | |
| Consumer | Human - oral | Long term, systemic effects | DNEL | 149 | mg/kg bw/day | |
| Consumer | Human - dermal | Long term, systemic effects | DNEL | 149 | mg/kg bw/day | |
| Consumer | Human - inhalation | Long term, systemic effects | DNEL | 447 | mg/m3 | |

8.2 Exposure controls

8.2.1 Appropriate engineering controls

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

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

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

Eye/face protection:

With danger of contact with eyes.

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

Skin protection - Hand protection:

Normally not necessary.

with long-term contact:

If applicable

Protective nitrile gloves (EN 374)

Protective gloves made of polyvinyl alcohol (EN 374)

Protective Viton® / fluoroelastomer gloves (EN 374)

Minimum layer thickness in mm:

>= 0,4

Permeation time (penetration time) in minutes:

>= 480

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

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

Protective hand cream recommended.

Skin protection - Other:

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

Respiratory protection:
Normally not necessary.
If OES or MEL is exceeded.
Filter A2 P2 (EN 14387), code colour brown, white
At high concentrations:
Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|--|----------------------------|
| Physical state: | Aerosol, Substance: Liquid |
| Colour: | Copper |
| Odour: | Characteristic |
| Odour threshold: | Not determined |
| pH-value: | n.a. |
| Melting point/freezing point: | Not determined |
| Initial boiling point and boiling range: | n.a. |
| Flash point: | n.a. |
| Evaporation rate: | Not determined |
| Flammability (solid, gas): | Not determined |
| Lower explosive limit: | 0,8 Vol-% |
| Upper explosive limit: | 9,0 Vol-% |
| Vapour pressure: | Not determined |
| Vapour density (air = 1): | Not determined |
| Density: | Not determined |
| Bulk density: | Not determined |
| Solubility(ies): | Not determined |
| Water solubility: | Insoluble |
| Partition coefficient (n-octanol/water): | Not determined |
| Auto-ignition temperature: | Not determined |
| Decomposition temperature: | Not determined |
| Viscosity: | Not determined |
| Explosive properties: | Not determined |
| Oxidising properties: | No |

9.2 Other information

| | |
|---------------------------|----------------|
| Miscibility: | Not determined |
| Fat solubility / solvent: | Not determined |
| Conductivity: | Not determined |
| Surface tension: | Not determined |
| Solvents content: | Not determined |

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

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

3-IN-ONE® Anti-Seize Copper Grease

| Toxicity/effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|---|----------|-------|------|----------|-------------|--|
| Acute toxicity, by oral route: | | | | | | n.d.a. |
| Acute toxicity, by dermal route: | | | | | | n.d.a. |
| Acute toxicity, by inhalation: | | | | | | n.d.a. |
| Skin corrosion/irritation: | | | | | | n.d.a. |
| Serious eye damage/irritation: | | | | | | n.d.a. |
| Respiratory or skin sensitisation: | | | | | | n.d.a. |
| Germ cell mutagenicity: | | | | | | n.d.a. |
| Carcinogenicity: | | | | | | n.d.a. |
| Reproductive toxicity: | | | | | | n.d.a. |
| Specific target organ toxicity - single exposure (STOT-SE): | | | | | | n.d.a. |
| Specific target organ toxicity - repeated exposure (STOT-RE): | | | | | | n.d.a. |
| Aspiration hazard: | | | | | | n.d.a. |
| Respiratory tract irritation: | | | | | | n.d.a. |
| Repeated dose toxicity: | | | | | | n.d.a. |
| Symptoms: | | | | | | n.d.a. |
| Other information: | | | | | | Classification according to calculation procedure. |

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

| Toxicity/effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|----------------------------------|----------|--------|---------|----------|--------------------------------------|---|
| Acute toxicity, by oral route: | LD50 | >16750 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | >3350 | mg/kg | Rabbit | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by inhalation: | LC50 | 259 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | Vapours |
| Aspiration hazard: | | | | | | Yes |
| Symptoms: | | | | | | drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness nausea and vomiting. |

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

| Toxicity/effect | Endpoint | Value | Unit | Organism | Test method | Notes |
|--------------------------------|----------|-------|-------|----------|--------------------------------|-------|
| Acute toxicity, by oral route: | LD50 | >2000 | mg/kg | Rat | | |
| Acute toxicity, by oral route: | LD50 | >8 | mg/kg | Rat | OECD 401 (Acute Oral Toxicity) | |

| | | | | | | |
|------------------------------------|------|--------|---------|--------|--|--|
| Acute toxicity, by dermal route: | LD50 | >=4 | mg/kg | Rat | OECD 402 (Acute Dermal Toxicity) | |
| Acute toxicity, by dermal route: | LD50 | >2000 | mg/kg | Rat | | |
| Acute toxicity, by inhalation: | LC50 | >23,3 | mg/l/4h | Rat | OECD 403 (Acute Inhalation Toxicity) | |
| Acute toxicity, by inhalation: | LC50 | >23300 | mg/m3 | Rat | OECD 403 (Acute Inhalation Toxicity) | |
| Skin corrosion/irritation: | | | | Rabbit | OECD 404 (Acute Dermal Irritation/Corrosion) | Irritant |
| Respiratory or skin sensitisation: | | | | | | Not sensitising |
| Germ cell mutagenicity: | | | | | | Negative |
| Aspiration hazard: | | | | | | Yes |
| Symptoms: | | | | | | diarrhoea, headaches, dizziness nausea and vomiting. |

| Petroleum gases, liquified | | | | | | |
|--------------------------------|----------|-------|------|----------|-------------|--------------|
| Toxicity/effect | Endpoint | Value | Unit | Organism | Test method | Notes |
| Acute toxicity, by inhalation: | LC50 | >5 | mg/l | | | |
| Skin corrosion/irritation: | | | | | | Not irritant |
| Serious eye damage/irritation: | | | | | | Not irritant |

SECTION 12: Ecological information

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

| 3-IN-ONE® Anti-Seize Copper Grease | | | | | | | |
|------------------------------------|----------|------|-------|------|----------|-------------|--|
| Toxicity/effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| Toxicity to fish: | | | | | | | n.d.a. |
| Toxicity to daphnia: | | | | | | | n.d.a. |
| Toxicity to algae: | | | | | | | n.d.a. |
| Persistence and degradability: | | | | | | | Isolate as much as possible with an oil separator. |
| Bioaccumulative potential: | | | | | | | n.d.a. |
| Mobility in soil: | | | | | | | n.d.a. |
| Results of PBT and vPvB assessment | | | | | | | n.d.a. |
| Other adverse effects: | | | | | | | n.d.a. |
| Other information: | | | | | | | According to the recipe, contains no AOX. |

| Hydrocarbons, C6, isoalkanes, <5% n-hexane | | | | | | | |
|--|----------|------|---------|------|---------------------|-------------|--|
| Toxicity/effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| Toxicity to fish: | EC50 | 96h | 18,27 | mg/l | Oncorhynchus mykiss | | |
| Toxicity to daphnia: | EC50 | 48h | 31,9 | mg/l | Daphnia magna | | |
| Persistence and degradability: | | 28d | 98 | % | | | Readily biodegradable (Analogous conclusion) |
| Bioaccumulative potential: | BCF | | 242-253 | | | | |
| Bioaccumulative potential: | Log Kow | | 2,9-4 | | | | |
| Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

| Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics | | | | | | | |
|--|----------|------|-------|------|---------------------|--------------------------------------|-------|
| Toxicity/effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
| Toxicity to fish: | LC50 | 96h | >13,4 | mg/l | Oncorhynchus mykiss | OECD 203 (Fish, Acute Toxicity Test) | |

| | | | | | | | |
|------------------------------------|-------|-----|-------|------|----------------------------------|--|-------------------------------------|
| Toxicity to daphnia: | LC50 | 48h | 3 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| Toxicity to daphnia: | EC50 | 48h | 3 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| Toxicity to daphnia: | EL50 | 24h | 12 | mg/l | Daphnia magna | OECD 202 (Daphnia sp. Acute Immobilisation Test) | |
| Toxicity to daphnia: | NOELR | 21d | 1 | mg/l | Daphnia magna | OECD 211 (Daphnia magna Reproduction Test) | |
| Toxicity to algae: | EL50 | 72h | 12 | mg/l | Pseudokirchnerie lla subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| Toxicity to algae: | NOELR | 72h | 6,3 | mg/l | Pseudokirchnerie lla subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| Toxicity to algae: | ErL50 | 72h | 10-30 | mg/l | Pseudokirchnerie lla subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| Toxicity to algae: | EbL50 | 72h | 10-30 | mg/l | Pseudokirchnerie lla subcapitata | OECD 201 (Alga, Growth Inhibition Test) | |
| Persistence and degradability: | | 28d | 98 | % | | OECD 301 F (Ready Biodegradability - Manometric Respirometry Test) | |
| Results of PBT and vPvB assessment | | | | | | | No PBT substance, No vPvB substance |

Petroleum gases, liquified

| Toxicity/effect | Endpoint | Time | Value | Unit | Organism | Test method | Notes |
|----------------------------|----------|------|-------|------|----------|-------------|-------|
| Bioaccumulative potential: | | | | | | | No |

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
07 06 04 other organic solvents, washing liquids and mother liquors

Recommendation:

Pay attention to local and national official regulations
Take full aerosol cans to problem waste collection.
Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations

Recommendation:

Do not perforate, cut up or weld uncleaned container.

Recycling

15 01 04 metallic packaging

SECTION 14: Transport information

General statements

UN number: 1950
Transport by road/by rail (ADR/RID)
 UN proper shipping name:
 UN 1950 AEROSOLS
 Transport hazard class(es): 2.1
 Packing group: -
 Classification code: 5F
 LQ (ADR 2013): 1 L
 LQ (ADR 2009): 2
 Environmental hazards: Not applicable
 Tunnel restriction code: D



Transport by sea (IMDG-code)

UN proper shipping name:
 AEROSOLS
 Transport hazard class(es): 2.1
 Packing group: -
 EmS: F-D, S-U
 Marine Pollutant: n.a
 Environmental hazards: Not applicable



Transport by air (IATA)

UN proper shipping name:
 Aerosols, flammable
 Transport hazard class(es): 2.1
 Packing group: -
 Environmental hazards: Not applicable



Special precautions for user

Persons employed in transporting dangerous goods must be trained.
 All persons involved in transporting must observe safety regulations.
 Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
 Minimum amount regulations have not been taken into account.
 Danger code and packing code on request.
 Comply with special provisions.

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions:

Comply with trade association/occupational health regulations.

Observe youth employment law (German regulation).

Directive 2010/75/EU (VOC): 65 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.

EU F0008

Revised sections: 2, 3, 8, 11, 12

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

| Classification in accordance with regulation (EC) No. 1272/2008 (CLP) | Evaluation method used |
|---|--|
| Asp. Tox. 1, H304 | Classification according to calculation procedure. |
| Aquatic Chronic 3, H412 | Classification according to calculation procedure. |

| | |
|-----------------|------------------------------------|
| Aerosol 1, H222 | Classification based on test data. |
| Aerosol 1, H229 | Classification based on test data. |

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

11 Highly flammable.
 38 Irritating to skin.
 51 Toxic to aquatic organisms.
 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 53 May cause long-term adverse effects in the aquatic environment.
 65 Harmful: may cause lung damage if swallowed.
 67 Vapours may cause drowsiness and dizziness.
 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.

Asp. Tox. — Aspiration hazard
 Aquatic Chronic — Hazardous to the aquatic environment - chronic
 Aerosol — Aerosols
 Flam. Liq. — Flammable liquid
 STOT SE — Specific target organ toxicity - single exposure - narcotic effects
 Skin Irrit. — Skin irritation

Any abbreviations and acronyms used in this document:

AC Article Categories
 acc., acc. to according, according to
 ACGIH American Conference of Governmental Industrial Hygienists
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOEL Acceptable Operator Exposure Level
 AOX Adsorbable organic halogen compounds
 approx. approximately
 Art., Art. no. Article number
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
 BCF Bioconcentration factor
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
 BHT Butylhydroxytoluol (= 2,6-Di-*t*-butyl-4-methyl-phenol)
 BMGV Biological monitoring guidance value (EH40, UK)
 BOD Biochemical oxygen demand
 BSEF Bromine Science and Environmental Forum
 bw body weight
 CAS Chemical Abstracts Service
 CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
 CIPAC Collaborative International Pesticides Analytical Council
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
 CMR carcinogenic, mutagenic, reproductive toxic
 COD Chemical oxygen demand
 CTFA Cosmetic, Toiletry, and Fragrance Association
 DMEL Derived Minimum Effect Level
 DNEL Derived No Effect Level
 DOC Dissolved organic carbon
 DT50 Dwell Time - 50% reduction of start concentration
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
 dw dry weight
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
 EC European Community
 ECHA European Chemicals Agency
 EEA European Economic Area

| | |
|-------------------|---|
| EEC | European Economic Community |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EN | European Norms |
| EPA | United States Environmental Protection Agency (United States of America) |
| ERC | Environmental Release Categories |
| ES | Exposure scenario |
| etc. | et cetera |
| EU | European Union |
| EWG | European Waste Catalogue |
| Fax. | Fax number |
| gen. | general |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| GWP | Global warming potential |
| HET-CAM | Hen's Egg Test - Chorionallantoic Membrane |
| HGWP | Halocarbon Global Warming Potential |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IBC | Intermediate Bulk Container |
| IBC (Code) | International Bulk Chemical (Code) |
| IC | Inhibitory concentration |
| IMDG-code | International Maritime Code for Dangerous Goods |
| incl. | including, inclusive |
| IUCLID | International Uniform Chemical Information Database |
| LC | lethal concentration |
| LC50 | lethal concentration 50 percent kill |
| LCLo | lowest published lethal concentration |
| LD | Lethal Dose of a chemical |
| LD50 | Lethal Dose, 50% kill |
| LDLo | Lethal Dose Low |
| LOAEL | Lowest Observed Adverse Effect Level |
| LOEC | Lowest Observed Effect Concentration |
| LOEL | Lowest Observed Effect Level |
| LQ | Limited Quantities |
| MARPOL | International Convention for the Prevention of Marine Pollution from Ships |
| n.a. | not applicable |
| n.av. | not available |
| n.c. | not checked |
| n.d.a. | no data available |
| NIOSH | National Institute of Occupational Safety and Health (United States of America) |
| NOAEC | No Observed Adverse Effective Concentration |
| NOAEL | No Observed Adverse Effect Level |
| NOEC | No Observed Effect Concentration |
| NOEL | No Observed Effect Level |
| ODP | Ozone Depletion Potential |
| OECD | Organisation for Economic Co-operation and Development |
| org. | organic |
| PAH | polycyclic aromatic hydrocarbon |
| PBT | persistent, bioaccumulative and toxic |
| PC | Chemical product category |
| PE | Polyethylene |
| PNEC | Predicted No Effect Concentration |
| POCP | Photochemical ozone creation potential |
| ppm | parts per million |
| PROC | Process category |
| PTFE | Polytetrafluorethylene |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals) |
| REACH-IT List-No. | 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT. |
| RID | Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail) |
| SADT | Self-Accelerating Decomposition Temperature |
| SAR | Structure Activity Relationship |
| SU | Sector of use |
| SVHC | Substances of Very High Concern |
| Tel. | Telephone |
| ThOD | Theoretical oxygen demand |

TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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