

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

**1.1 Product identifier**

**Lubrifix Fettkartusche  
Id.-Nr. 1322335**

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

**1.2.1 Relevant uses**

Grease

**1.2.2 Uses advised against**

None known.

**1.3 Details of the supplier of the safety data sheet**

**Company** RÖHM GmbH  
Heinrich-Roehm-Str. 50  
89567 Sontheim / GERMANY  
Phone +49(0)7325 16-0  
Fax +49(0)7325 16-510  
Homepage [www.roehm.biz](http://www.roehm.biz)  
E-mail [info@roehm.biz](mailto:info@roehm.biz)

**Address enquiries to**

**Technical information** [info@roehm.biz](mailto:info@roehm.biz)

**Safety Data Sheet** [sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

**1.4 Emergency telephone number**

**Advisory body** +49 (0)89-19240 (24h) (english)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]**

Aerosol 1: H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.

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

Skin Irrit. 2: H315 Causes skin irritation.

STOT SE 3: H336 May cause drowsiness or dizziness.

Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

## 2.2 Label elements

The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).

### Hazard pictograms



### Signal word

DANGER

### Contains:

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane  
n-Hexane

### Hazard statements

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

### Precautionary statements

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 / 122°F.  
P261 Avoid breathing vapours.  
P273 Avoid release to the environment.  
P280 Wear protective gloves.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER / doctor.  
P331 Do NOT induce vomiting.  
P391 Collect spillage.

### Special labelling

Contains: Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), Nickel, N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol-1-methylamine, Benzotriazol derivate. EUH208 May produce an allergic reaction.

## 2.3 Other hazards

### Human health dangers

If swallowed or in the event of vomiting, risk of product entering the lungs.

### Environmental hazards

Does not contain any PBT or vPvB substances.

### Other hazards

Further hazards were not determined with the current level of knowledge.

**SECTION 3: Composition / Information on ingredients****Product-type:**

The product is a mixture.

Range [%]	Substance
100	Nitrogen CAS: 7727-37-9, EINECS/ELINCS: 231-783-9 GHS/CLP: Press. Gas (Compressed gas): H280
25 - 50	Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane EINECS/ELINCS: 921-024-6, Reg-No.: 01-2119475514-35-XXXX GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Chronic 2: H411
2,5 - < 10	Carbon CAS: 7440-44-0, EINECS/ELINCS: 231-153-3 GHS/CLP: Flam. Sol. 1: H228 - Self-heat. 1: H251
0,1 - 2,5	Aluminium powder (pyrophoric) CAS: 7429-90-5, EINECS/ELINCS: 231-072-3, EU-INDEX: 013-001-00-6 GHS/CLP: Pyr. Sol. 1: H250 - Water-react. 2: H261
0,1 - 2,5	Propylene carbonate CAS: 108-32-7, EINECS/ELINCS: 203-572-1, EU-INDEX: 607-194-00-1, Reg-No.: 01-2119537232-48-XXXX GHS/CLP: Eye Irrit. 2: H319
0,25 - < 2,5	n-Hexane CAS: 110-54-3, EINECS/ELINCS: 203-777-6, EU-INDEX: 601-037-00-0 GHS/CLP: Flam. Liq. 2: H225 - Repr. 2: H361f - Asp. Tox. 1: H304 - STOT RE 2: H373 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Chronic 2: H411
0,1 - 1	Chromium CAS: 7440-47-3, EINECS/ELINCS: 231-157-5 GHS/CLP: Aquatic Chronic 4: H413
0,25 - 1	Hydrocarbons, C9, aromatics EINECS/ELINCS: 918-668-5, Reg-No.: 01-2119455851-35-XXXX GHS/CLP: Flam. Liq. 3: H226 - Asp. Tox. 1: H304 - STOT SE 3: H336 - STOT SE 3: H335 - Aquatic Chronic 2: H411
0,25 - 1	Cyclohexane CAS: 110-82-7, EINECS/ELINCS: 203-806-2, EU-INDEX: 601-017-00-1 GHS/CLP: Flam. Liq. 2: H225 - Asp. Tox. 1: H304 - Skin Irrit. 2: H315 - STOT SE 3: H336 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M = 1
0,25 - < 1	Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) CAS: -, EINECS/ELINCS: 931-384-6, Reg-No.: 01-2119493620-38-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Sens. 1: H317 - Eye Dam. 1: H318 - Aquatic Chronic 2: H411
0,1 - < 1	Nickel CAS: 7440-02-0, EINECS/ELINCS: 231-111-4, EU-INDEX: 028-002-00-7 GHS/CLP: Carc. 2: H351 - STOT RE 1: H372 - Skin Sens. 1: H317
0,1 - < 0,25	N,N-Bis(2-ethylhexyl)-4-methyl-1H-benzotriazol-1-methylamine CAS: 80584-90-3, EINECS/ELINCS: 279-514-4 GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411
0,1 - < 0,25	Benzotriazol derivate CAS: 80595-74-0, EINECS/ELINCS: 279-503-4 GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411

**Comment on component parts**

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

<b>General information</b>	Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
<b>Ingestion</b>	Consult a doctor immediately. Do not induce vomiting. Rinse mouth.

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

No information available.

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

Treat symptomatically.  
Forward this sheet to the doctor.  
If swallowed or in the event of vomiting, risk of product entering the lungs.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	foam, dry powder, water spray jet, carbon dioxide Sand.
<b>Extinguishing media that must not be used</b>	Full water jet.

### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Bursting aerosols can be forcibly projected from a fire.

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Cool containers at risk with water spray jet.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from all sources of ignition.  
Ensure adequate ventilation.  
Wear suitable protective equipment. For personal protection see SECTION 8.  
Use breathing apparatus.

### 6.2 Environmental precautions

In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

### 6.3 Methods and material for containment and cleaning up

Take up mechanically.  
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).  
Dispose of absorbed material in accordance with the regulations.

#### 6.4 Reference to other sections

See SECTION 8+13

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Use only in well-ventilated areas.  
Provide good room ventilation even at ground level (vapours are heavier than air).  
Avoid contact with eyes and skin. Use personal protective equipment.  
Keep away from open flames, hot surfaces and sources of ignition.  
Pressurised container: May burst if heated.  
Do not pierce or burn, even after use.  
Use explosion-proofed equipment/fittings and non-sparking tools.  
Take precautionary measures against static discharges.  
Do not eat, drink or smoke when using this product.  
Wash hands before breaks and after work.

#### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Keep container in a well-ventilated place.  
Keep in a cool place, heat causes increase in pressure and risk of bursting.  
Protect from heat/overheating and from sun.  
Do not keep at temperatures above 50 °C.

#### 7.3 Specific end use(s)

See product use, SECTION 1.2

**SECTION 8: Exposure controls / personal protection****8.1 Control parameters****Ingredients with occupational exposure limits to be monitored (GB)**

Substance
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
EINECS/ELINCS: 921-024-6, Reg-No.: 01-2119475514-35-XXXX
Long-term exposure: 1200 mg/m <sup>3</sup>
Hydrocarbons, C9, aromatics
EINECS/ELINCS: 918-668-5, Reg-No.: 01-2119455851-35-XXXX
Long-term exposure: 100 mg/m <sup>3</sup>
Cyclohexane
CAS: 110-82-7, EINECS/ELINCS: 203-806-2, EU-INDEX: 601-017-00-1
Long-term exposure: 100 ppm, 350 mg/m <sup>3</sup>
Short-term exposure (15-minute): 300 ppm, 1050 mg/m <sup>3</sup>
n-Hexane
CAS: 110-54-3, EINECS/ELINCS: 203-777-6, EU-INDEX: 601-037-00-0
Long-term exposure: 20 ppm, 72 mg/m <sup>3</sup>
Aluminium powder (pyrophoric)
CAS: 7429-90-5, EINECS/ELINCS: 231-072-3, EU-INDEX: 013-001-00-6
Long-term exposure: 10 mg/m <sup>3</sup> , inhalable dust (respirable dust: 4 mg/m <sup>3</sup> )
Chromium
CAS: 7440-47-3, EINECS/ELINCS: 231-157-5
Long-term exposure: 0,5 mg/m <sup>3</sup>
Nickel
CAS: 7440-02-0, EINECS/ELINCS: 231-111-4, EU-INDEX: 028-002-00-7
Long-term exposure: 0,5 mg/m <sup>3</sup> , Sk, Carc (nickel and water-insoluble nickel compounds (as Ni))

**Ingredients with occupational exposure limits to be monitored (EU)**

Substance / EC LIMIT VALUES
Cyclohexane
CAS: 110-82-7, EINECS/ELINCS: 203-806-2, EU-INDEX: 601-017-00-1
Eight hours: 200 ppm, 700 mg/m <sup>3</sup>
n-Hexane
CAS: 110-54-3, EINECS/ELINCS: 203-777-6, EU-INDEX: 601-037-00-0
Eight hours: 20 ppm, 72 mg/m <sup>3</sup>
Chromium
CAS: 7440-47-3, EINECS/ELINCS: 231-157-5
Eight hours: 2 mg/m <sup>3</sup>

**DNEL**

Substance
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
Industrial, inhalative, Long-term - systemic effects: 2035 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 773 mg/kg bw/d.
general population, inhalative, Long-term - systemic effects: 608 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 699 mg/kg bw/d.
general population, oral, Long-term - systemic effects: 699 mg/kg bw/d.
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and

amines, C12-14-alkyl (branched), CAS: -
Industrial, dermal, Long-term - systemic effects: 12,5 mg/kg/8h (ECHA CHEM).
Industrial, inhalative, Long-term - systemic effects: 8,56 mg/m <sup>3</sup> /8h (ECHA CHEM).
general population, oral, Long-term - systemic effects: 0,25 mg/kg bw/day.
general population, dermal, Acute - local effects: 0,024 mg/cm <sup>2</sup> .
general population, dermal, Long-term - systemic effects: 6,25 mg/kg bw/day.
general population, inhalative, Long-term - systemic effects: 2,2 mg/m <sup>3</sup> .
Propylene carbonate, CAS: 108-32-7
Industrial, dermal, Long-term - systemic effects: 50 mg/kg.
Industrial, inhalative, Long-term - systemic effects: 176 mg/m <sup>3</sup> .
Industrial, inhalative, Long-term - local effects: 20 mg/m <sup>3</sup> .
general population, oral, Long-term - systemic effects: 25 mg/kg.
general population, inhalative, Long-term - systemic effects: 43,5 mg/m <sup>3</sup> .
general population, inhalative, Long-term - local effects: 10 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 25 mg/kg.
Hydrocarbons, C9, aromatics
Industrial, inhalative (vapor), Long-term - systemic effects: 150 mg/m <sup>3</sup> .
Industrial, dermal, Long-term - systemic effects: 25 mg/kg bw/day.
general population, oral, Long-term - systemic effects: 11 mg/kg bw/day.
general population, inhalative (vapor), Long-term - systemic effects: 32 mg/m <sup>3</sup> .
general population, dermal, Long-term - systemic effects: 11 mg/kg bw/day.

**PNEC**

Substance
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), CAS: -
sewage treatment plants (STP), 24.33 mg/l (ECHA CHEM).
soil, 2,54 mg/kg soil dw (ECHA CHEM).
sediment (seaater), 0,313 mg/kg (ECHA CHEM).
sediment (freshwater), 3,13 mg/kg (ECHA CHEM).
seawater, 0,00012 mg/l (ECHA CHEM).
freshwater, 0,0012 mg/l (ECHA CHEM).
Propylene carbonate, CAS: 108-32-7
soil, 0,81 mg/kg.
sewage treatment plants (STP), 7400 mg/l.
freshwater, 0,9 mg/l.
seawater, 0,09 mg/l.

## 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
<b>Eye protection</b>	Not required under normal conditions.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. 0,4 mm: Nitrile rubber, >480 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Protective clothing.
<b>Other</b>	Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. Do not inhale gases. Avoid contact with eyes and skin.
<b>Respiratory protection</b>	If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	Dual-chamber aerosol can
<b>Color</b>	dark grey (Liquid)
<b>Odor</b>	like mineral oil
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	80 - 110 (Liquid)
<b>Flash point [°C]</b>	< 0 (Liquid)
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	0,8 Vol. % (Liquid)
<b>Upper explosion limit</b>	8,0 Vol. % (Liquid)
<b>Oxidising properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	No information available. (Liquid)
<b>Density [g/ml]</b>	~ 0,9 (20 °C) (Liquid)
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	virtually insoluble (Liquid)
<b>Partition coefficient [n-octanol/water]</b>	not applicable
<b>Viscosity</b>	not applicable
<b>Relative vapour density determined in air</b>	not applicable
<b>Evaporation speed</b>	not applicable
<b>Melting point [°C]</b>	not applicable
<b>Autoignition temperature [°C]</b>	not applicable
<b>Decomposition temperature [°C]</b>	not applicable

### 9.2 Other information

none



## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Heat causes increase in pressure and risk of bursting.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions known.

### 10.4 Conditions to avoid

Warming

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

No hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Substance
Cyclohexane, CAS: 110-82-7
LD50, dermal, Rabbit: > 2000 mg/kg (IUCLID).
LD50, oral, Rat: > 5000 mg/kg (IUCLID).
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
LD50, oral, Rat: > 5800 mg/kg.
LD50, dermal, Rabbit: > 3920 mg/kg.
LC50, inhalative, Rat: > 25,2 mg/l 4h.
n-Hexane, CAS: 110-54-3
LD50, oral, mouse: 5000 mg/kg (IUCLID).
LD50, dermal, Rabbit: 3000 mg/kg (IUCLID).
Benzotriazol derivate, CAS: 80595-74-0
LD50, oral, Rat: > 2000 mg/kg.
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), CAS: -
LD50, oral, Rat: 2000 mg/kg bw OECD 401 (ECHA CHEM).
Propylene carbonate, CAS: 108-32-7
NOEC: 100 mg/m <sup>3</sup> /90d (OECD 413).
LD50, dermal, Rabbit: > 2000 mg/kg.
LD50, oral, Rat: 33520 mg/kg.
NOAEL, oral, Rat: 1000 mg/kg (OECD 414).
NOAEL, Rat: 5000 mg/kg (OECD 414).
NOEL, > 5000 mg/kg (OECD 408).
Hydrocarbons, C9, aromatics
LD50, dermal, Rabbit: 3160 mg/kg.
LD50, oral, Rat: 6984 mg/kg.
LC50, inhalative, Rat: 6,193 mg/L (4h).

**Serious eye damage/irritation** Based on the available information, the classification criteria are not fulfilled.

**Skin corrosion/irritation** Irritant  
Calculation method

**Respiratory or skin sensitisation** EUH208: May produce an allergic reaction.  
Calculation method

**Specific target organ toxicity — single exposure** Vapours may cause drowsiness and dizziness.  
Calculation method

**Specific target organ toxicity — repeated exposure** Based on the available information, the classification criteria are not fulfilled.

**Mutagenicity** Based on the available information, the classification criteria are not fulfilled.

**Reproduction toxicity** Based on the available information, the classification criteria are not fulfilled.

**Carcinogenicity** Based on the available information, the classification criteria are not fulfilled.

**Aspiration hazard** May be fatal if swallowed and enters airways.  
Calculation method

**General remarks**

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials. Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Cyclohexane, CAS: 110-82-7
LC50, (96h), fish: 93,0 - 117 mg/l (IUCLID).
EC50, (48h), Daphnia magna: 3,78 mg/l (IUCLID).
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane
EL50, (72h), Pseudokirchneriella subcapitata: 30 - 100 mg/l.
EL50, (48h), Daphnia magna: 3 mg/l.
NOEC, (21d), Daphnia magna: 0,17 mg/l.
LL50, (96h), Oncorhynchus mykiss: 11,4 mg/l.
LOEC, (21d), Daphnia magna: 0,32 mg/l.
n-Hexane, CAS: 110-54-3
LC50, (96h), Pimephales promelas: 2,5 mg/l (ECOTOX).
EC50, (48h), Daphnia magna: 2,1 mg/l (Lit).
Benzotriazol derivate, CAS: 80595-74-0
LC50, (96h), Brachidanio rerio: 1,3 mg/l (OECD 203).
EC50, (24h), Daphnia magna: 1,4 mg/l (OECD 202).
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched), CAS: -
EL50, (48h), Daphnia magna: ~ 91,4 mg/l OECD 202 (ECHA CHEM).
EL50, (96h), Selenastrum capricornutum: > 15 mg/l OECD 201 (ECHA CHEM).
LL50, (96h), Oncorhynchus mykiss: ~ 24 mg/l OECD 203 (ECHA CHEM).
Propylene carbonate, CAS: 108-32-7
LC50, (96h), fish: > 1000 mg/l (EU EC C.1).
EC50, (48h), Daphnia magna: > 1000 mg/l (OECD 202).
EC50, (16h), Bacteria: 25619 mg/l (DIN DIN 38412 Part 8).
NOEC, (72h), Algae: 900 mg/l (OECD 201).
ErC50, (72h), Algae: > 900 mg/l (OECD 201).
Hydrocarbons, C9, aromatics
LC50, (48h), Oncorhynchus mykiss: 9,22 mg/L.
EC50, (48h), Daphnia magna: 6,14 mg/L.

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	No information available.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

not applicable

## 12.6 Other adverse effects

Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

For recycling, consult manufacturer.

#### Waste no. (recommended)

160504\* gases in pressure containers (including halons) containing dangerous substances

#### Contaminated packaging

Uncontaminated packaging may be taken for recycling.

#### Waste no. (recommended)

150104

## SECTION 14: Transport information

### 14.1 UN number


Transport by land according to ADR/RID 1950


Inland navigation (ADN) 1950


Marine transport in accordance with IMDG 1950


Air transport in accordance with IATA 1950

**14.2 UN proper shipping name**

Transport by land according to ADR/RID	Aerosols
- Classification Code	5F
- Label	
- ADR LQ	1 I
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 2 (D)

Inland navigation (ADN)	Aerosols
- Classification Code	5F
- Label	

Marine transport in accordance with IMDG	Aerosols (Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, < 5% n-hexane)
- EMS	F-D, S-U
- Label	
- IMDG LQ	1 I

Air transport in accordance with IATA	Aerosols, flammable
- Label	

**14.3 Transport hazard class(es)**

Transport by land according to ADR/RID	2
Inland navigation (ADN)	2
Marine transport in accordance with IMDG	2.1
Air transport in accordance with IATA	2.1

**14.4 Packing group**

Transport by land according to ADR/RID	not applicable
Inland navigation (ADN)	not applicable
Marine transport in accordance with IMDG	not applicable
Air transport in accordance with IATA	not applicable

**14.5 Environmental hazards**

Transport by land according to ADR/RID	yes
Inland navigation (ADN)	yes
Marine transport in accordance with IMDG	MARINE POLLUTANT
Air transport in accordance with IATA	yes

**14.6 Special precautions for user**

Relevant information under SECTION 6 to 8.

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

No information available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

<b>EEC-REGULATIONS</b>	1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2018).
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011).
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (2010/75/CE)	46,8 %

**15.2 Chemical safety assessment**

For this product a chemical safety assessment has not been carried out.

**SECTION 16: Other information****16.1 Hazard statements (SECTION 03)**

H280 Contains gas under pressure; may explode if heated.  
H318 Causes serious eye damage.  
H302 Harmful if swallowed.  
H317 May cause an allergic skin reaction.  
H372 Causes damage to organs through prolonged or repeated exposure if inhaled.  
H351 Suspected of causing cancer.  
H413 May cause long lasting harmful effects to aquatic life.  
H335 May cause respiratory irritation.  
H226 Flammable liquid and vapour.  
H410 Very toxic to aquatic life with long lasting effects.  
H400 Very toxic to aquatic life.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H361f Suspected of damaging fertility.  
H261 In contact with water releases flammable gases.  
H250 Catches fire spontaneously if exposed to air.  
H319 Causes serious eye irritation.  
H251 Self-heating; may catch fire.  
H228 Flammable solid.  
H411 Toxic to aquatic life with long lasting effects.  
H336 May cause drowsiness or dizziness.  
H315 Causes skin irritation.  
H304 May be fatal if swallowed and enters airways.  
H225 Highly flammable liquid and vapour.

**16.2 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
 ATE = acute toxicity estimate  
 CAS = Chemical Abstracts Service  
 CLP = Classification, Labelling and Packaging  
 DMEL = Derived Minimum Effect Level  
 DNEL = Derived No Effect Level  
 EC50 = Median effective concentration  
 ECB = European Chemicals Bureau  
 EEC = European Economic Community  
 EINECS = European Inventory of Existing Commercial Chemical Substances  
 ELINCS = European List of Notified Chemical Substances  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
 IC50 = Inhibition concentration, 50%  
 IMDG = International Maritime Code for Dangerous Goods  
 IUCLID = International Uniform Chemical Information Database  
 LC50 = Lethal concentration, 50%  
 LD50 = Median lethal dose  
 LC0 = lethal concentration, 0%  
 LOAEL = lowest-observed-adverse-effect level  
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
 NOAEL = No Observed Adverse Effect Level  
 NOEC = No Observed Effect Concentration  
 PBT = Persistent, Bioaccumulative and Toxic substance  
 PNEC = Predicted No-Effect Concentration  
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
 STP = Sewage Treatment Plant  
 TLV@TWA = Threshold limit value – time-weighted average  
 TLV@STEL = Threshold limit value – short-time exposure limit  
 VOC = Volatile Organic Compounds  
 vPvB = very Persistent and very Bioaccumulative

**16.3 Other information****Classification procedure**

Aerosol 1: H222 Extremely flammable aerosol. (Calculation method) H229 Pressurised container: May burst if heated. (Calculation method)  
 Asp. Tox. 1: H304 May be fatal if swallowed and enters airways. (Calculation method)  
 Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)  
 STOT SE 3: H336 May cause drowsiness or dizziness. (Calculation method)  
 Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)

**Modified position**

none



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