





# SAFETY DATA SHEET



according to Regulation (EC) No 1907/2006

## Rust Remover

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### 2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
		REACH No
	GHS Classification	
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates	50 - <= 100 %
	918-481-9	01-2119457273-39
	Asp. Tox. 1; H304 EUH066	
75-28-5	isobutane	25 - < 50 %
	200-857-2	601-004-00-0
	Flam. Gas 1, Liquefied gas; H220 H280	01-2119485395-27
74-98-6	propane	3 - < 5 %
	200-827-9	601-003-00-5
	Flam. Gas 1, Liquefied gas; H220 H280	01-2119486944-21
106-97-8	butane	1 - < 3 %
	203-448-7	601-004-00-0
	Flam. Gas 1, Liquefied gas; H220 H280	01-2119474691-32

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

#### Labelling for contents according to Regulation (EC) No 648/2004

>= 30 % aliphatic hydrocarbons.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

#### After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

#### After contact with skin

Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

#### After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Headache, nausea, dizziness, fatigue, skin irritation

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

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Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder.

##### Unsuitable extinguishing media

Full water jet

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

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO<sub>2</sub>, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

#### 5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Danger of bursting container.

### SECTION 6: Accidental release measures

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

Wear breathing apparatus if exposed to vapours /dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Wear personal protection equipment.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated articles and floor according to the environmental legislation.

#### 6.4. Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Observe instructions for use.  
Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.  
When using do not eat, drink, smoke, sniff.  
Wear personal protection equipment (refer to section 8).  
In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

##### Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Heating causes rise in pressure with risk of bursting.

##### Further information on handling

Avoid contact with skin and eyes.

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

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### Requirements for storage rooms and vessels

Keep container tightly closed. Observe legal regulations and provisions.

### Hints on joint storage

Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

### Further information on storage conditions

Protect from frost. Protect against direct sunlight. Store in a cool dry place. Observe legal regulations and provisions.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

#### Additional advice on limit values

- a no restriction
- b End of exposure or end of shift
- c at long term exposure: after several previous shifts
- d before next shift

- blood (B)
- Urine (U)

### 8.2. Exposure controls

#### Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

#### Protective and hygiene measures

Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

#### Eyeface protection

Suitable eye protection: Tightly sealed safety glasses.  
DIN EN 166

#### Hand protection

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

Suitable material: NBR (Nitrile rubber) Breakthrough time (maximum wearing time) 480min

Thickness of the glove material 0,45 mm

EN ISO 374

#### Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

#### Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

When exceeding the relevant workplace exposure limits, note the following:

Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..

Filtering device with filter or ventilator filtering device of type: AX

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Observe the wear time limits as specified by the manufacturer.

Observe legal regulations and provisions.

### Environmental exposure controls

Observe legal regulations and provisions.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state: Aerosol  
Colour: colourless  
Odour: characteristic

pH-Value (at 20 °C):

#### Test method

DIN 19268

#### Changes in the physical state

Initial boiling point and boiling range: -11,7 °C

Flash point: -80 °C

#### Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: 0,6

Upper explosion limits: 9,4

#### Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

#### Oxidizing properties

Not oxidising.

Density (at 20 °C): 0,785 g/cm<sup>3</sup> DIN 51757

Water solubility: The study does not need to be conducted because the substance is known to be insoluble in water.

#### Solubility in other solvents

not determined

Evaporation rate: not determined

### 9.2. Other information

Solid content: not determined

Data apply to technical substance: Relative density, Colour, Odour, Viscosity, pH.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Extremely flammable aerosol.

### 10.2. Chemical stability

The product is stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

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### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

Oxidizing agents. Pyrophoric or self-heating substances.

### 10.6. Hazardous decomposition products

Incomplete combustion and thermolysis gases of different toxicity can occur . In the case of hydrocarbonaceous products such as CO, CO<sub>2</sub>, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

### Further information

Do not mix with other chemicals.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

#### Acute toxicity

Based on available data, the classification criteria are not met.

CAS No	Chemical name			
	Exposure route	Dose	Species	Source
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates			
	oral	LD50 >8000 mg/kg	Rat	
	dermal	LD50 >3160 mg/kg	Rabbit	
	inhalation (4 h) vapour	LC50 4951 mg/l	Rat	
75-28-5	isobutane			
	inhalation vapour	LC50 1237 mg/l	Mouse.	
106-97-8	butane			
	inhalation (4 h) gas	LC50 658 ppm	Rat	GESTIS

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

No indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Specific effects in experiment on an animal

No information available.



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### Additional information on tests

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

## SECTION 12: Ecological information

### 12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name				
	Aquatic toxicity	Dose	[h]   [d]	Species	Source
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates				
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 >1000 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 >1000 mg/l	48 h	Daphnia magna	
75-28-5	isobutane				
	Acute fish toxicity	LC50 91,42 mg/l	96 h	Fish, no other information	United States Environmental Protection A
	Acute algae toxicity	ErC50 19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200)
	Acute crustacea toxicity	EC50 69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200)
74-98-6	propane				
	Acute fish toxicity	LC50 49,9 mg/l	96 h	Fish, no other information	United States Environmental Protection A
	Acute algae toxicity	ErC50 19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200)
	Acute crustacea toxicity	EC50 69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200)
106-97-8	butane				
	Acute fish toxicity	LC50 49,9 mg/l	96 h	Fish, no other information	United States Environmental Protection A
	Acute algae toxicity	ErC50 19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200)
	Acute crustacea toxicity	EC50 69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200)

### 12.2. Persistence and degradability

There are no data available on the mixture itself. AOX (mg/l): 0

### 12.3. Bioaccumulative potential

There are no data available on the mixture itself.

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### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-28-5	isobutane	1,09
74-98-6	propane	1,09
106-97-8	butane	1,09

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

### 12.6. Other adverse effects

No information available.

### Further information

Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Advice on disposal

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

#### Waste disposal number of waste from residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

#### Waste disposal number of used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

#### Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number:</b>	UN 1950
<b>14.2. UN proper shipping name:</b>	AEROSOLS
<b>14.3. Transport hazard class(es):</b>	2
<b>14.4. Packing group:</b>	-
Hazard label:	2.1
Classification code:	5F
Special Provisions:	190 327 344 625
Limited quantity:	1 L
Excepted quantity:	E0
Transport category:	2
Tunnel restriction code:	D

### Inland waterways transport (ADN)

<b>14.1. UN number:</b>	UN 1950
<b>14.2. UN proper shipping name:</b>	AEROSOLS

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**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
Hazard label: 2.1  
Classification code: 5F  
Special Provisions: 190 327 344 625

Limited quantity: 1 L  
Excepted quantity: E0

### Marine transport (IMDG)

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
Hazard label: 2.1  
Marine pollutant: no  
Special Provisions: 63, 190, 277, 327, 344, 381,959

Limited quantity: 1000 mL  
Excepted quantity: E0  
EmS: F-D, S-U

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, flammable  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -

Hazard label: 2.1  
Special Provisions: A145 A167 A802  
Limited quantity Passenger: 30 kg G  
Passenger LQ: Y203  
Excepted quantity: E0  
IATA-packing instructions - Passenger: 203  
IATA-max. quantity - Passenger: 75 kg  
IATA-packing instructions - Cargo: 203  
IATA-max. quantity - Cargo: 150 kg

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

### 14.6. Special precautions for user

Warning: Flammable gases.

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28: Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; isobutane; butane



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2010/75/EU (VOC):

No information available.

2004/42/EC (VOC):

No information available.

### Additional information



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Aerosol directive (75/324/EEC)

### National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).  
Water contaminating class (D): 1 - slightly water contaminating

### 15.2. Chemical safety assessment

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

## SECTION 16: Other information

### Changes

This data sheet contains changes from the previous version in section(s): 2,3,4,7,10,11,12,13,15.

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route ( European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
IATA: International Air Transport Association  
IMDG: International Maritime Code for Dangerous Goods  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level  
WEL (UK): Workplace Exposure Limits  
TWA (EC): Time-Weighted Average  
ATE: Acute Toxicity Estimate  
STEL (EC) Short Term Exposure Limit  
LC50: Lethal Concentration  
EC50: half maximal Effective Concentration  
ErC50: means EC50 in terms of reduction of growth rate

### Relevant H and EUH statements (number and full text)

H220 Extremely flammable gas.  
H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H280 Contains gas under pressure; may explode if heated.  
H304 May be fatal if swallowed and enters airways.  
EUH066 Repeated exposure may cause skin dryness or cracking.

### Further Information

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

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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

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