Safety Data Sheet

according to Regulation (EC) No 1907/2006

Eis Rostlöser AW0361

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

1.1. Product identifier

Eis Rostlöser AW0361

Further trade names

5540008

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

Use of the substance/mixture

rust remover

1.3. Details of the supplier of the safety data sheet

Company name:	Johannes J. Matthies GmbH & Co. KG	
Street:	Hammerbrookstrasse 97	
Place:	D-20097 Hamburg	
Telephone:	+49 (0) 40 237210	Telefax: +49 (0) 4023721 390
e-mail:	info@matthies.de	
Internet:	www.matthies.de	

1.4. Emergency telephone number:

111 NHS (National Health Service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Indications of danger: F+ - Extremely flammable
R phrases:
Extremely flammable.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Vapours may cause drowsiness and dizziness.

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

Hazard categories:
Aerosol: Aerosol 1
Aspiration hazard: Asp. Tox. 1
Skin corrosion/irritation: Skin Irrit. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 3
Hazard Statements:
Extremely flammable aerosol.
Pressurised container: May burst if heated.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard components for labelling

Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane
Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics

Signal word:	Danger
Pictograms:	GHS02-GHS07

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P101	If medical advice is needed, have product container or label at hand.
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.
P260	Do not breathe Aerosol.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container according to the official regulations.

2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	GHS Classification	
REACH No		
200-857-2	isobutane	50 - <= 100 %
75-28-5	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119485395-27		
921-024-6	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane	10 - < 20 %
92128-66-0	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119475514-35		
203-448-7	butane	5 - < 10 %
106-97-8	F+ - Extremely flammable R12	
601-004-00-0	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119474691-32		
927-510-4	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics	5 - < 10 %
64742-49-0	F - Highly flammable, Xn - Harmful, Xi - Irritant, N - Dangerous for the environment R11-38-51-53-65-67	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H225 H315 H336 H304 H411	
01-2119475515-33		
200-827-9	propane	5 - < 10 %
74-98-6	F+ - Extremely flammable R12	
601-003-00-5	Flam. Gas 1, Liquefied gas; H220 H280	
01-2119486944-21		
927-241-2	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics	3 - < 5 %
1174921-73-3	Xn - Harmful R10-52-53-65-67	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 3; H226 H336 H304 H412 EUH066	
01-2119471843-32		

Full text of R, H and EUH phrases: see section 16.

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

>= 30 % aliphatic hydrocarbons, perfumes.

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

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 (CO2). 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, CO2, 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

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/m³	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.

Eye/face 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
DIN EN 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
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:	light brown
Odour:	chewing gum

		Test method
pH-Value (at 20 °C):		DIN 19268
Changes in the physical state		
Melting point:	not determined	
Initial boiling point and boiling range:	-40 °C	
Sublimation point:	No information available.	
Softening point:	No information available.	
Flash point:	-80 °C	
Flammability		
Solid:	not applicable	
Gas:	not applicable	
Lower explosion limits:	1 vol. %	
Upper explosion limits:	11 vol. %	
Ignition temperature:	No information available.	
Auto-ignition temperature		
Solid:	not applicable	
Gas:	not applicable	
Decomposition temperature:	not determined	
Oxidizing properties		
Not oxidising.		
Vapour pressure:	not determined	
Vapour pressure:	No information available.	
Density (at 20 °C):	0,738 g/cm³	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

Partition coefficient:	not determined
Viscosity / dynamic:	No information available.
Viscosity / kinematic:	< 7 mm²/s
Flow time:	No information available.
Vapour density:	not determined
Evaporation rate:	not determined
Solvent separation test:	No information available.
Solvent content:	No information available.

9.2. Other information

Solid content:	not determined

Relative density Data apply to the technically active substance.
pressure - bar (20°C)

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.

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, CO2, 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

Toxicocinetics, metabolism and distribution

No information available.

Acute toxicity

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

Acute toxicity

CAS No	Chemical name				
	Exposure route	Method	Dose	Species	Source
75-28-5	isobutane				
	inhalation vapour	LC50	1237 mg/l	Mouse.	
92128-66-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane				
	oral	LD50	> 5000 mg/kg	Rat	
	dermal	LD50	> 2800 - 3100 mg/kg	Rat	Study report (1977)
	inhalation (4 h) vapour	LC50	> 25,2 mg/l	Rat	Study report (1988)
106-97-8	butane				
	inhalation (4 h) gas	LC50	658 ppm	Rat	GESTIS
64742-49-0	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics				
	oral	LD50	5500 mg/kg	Rat	
	dermal	LD50	> 2800 - 3100 mg/kg	Rat	Study report (1977)
	inhalation (4 h) vapour	LC50	> 23,3 mg/l	Rat	Study report (1988)
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics				
	oral	LD50	> 15000 mg/kg	Rat	Study report (1977)
	dermal	LD50	> 5000 mg/kg	Rabbit	Study report (1993)
	inhalation (4 h) vapour	LC50	> 4951 mg/l	Rat	

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

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

STOT-single exposure

May cause drowsiness or dizziness. (Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane; Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics)

Severe effects after repeated or prolonged exposure

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.

Aspiration hazard

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

Specific effects in experiment on an animal

No information available.

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

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] | [d]	Species	Source
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
92128-66-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane					
	Acute fish toxicity	LC50	> 1-10 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50	10 - 30 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1995)
	Acute crustacea toxicity	EC50	> 1-10 mg/l	48 h	Daphnia magna	
	Fish toxicity	NOEC	2,045 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM
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
64742-49-0	Hydrocarbons, C7, n-alkanes, iso-alkanes, cyclics					
	Acute fish toxicity	LC50	>1 - 10 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	12 mg/l	72 h	Pseudokirchneriella subcapitata	SIDS Initial Assessment Report For SIAM
	Acute crustacea toxicity	EC50	>1 - 10 mg/l	48 h	Daphnia magna	
	Fish toxicity	NOEC	1,534 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM
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

1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics					
	Acute fish toxicity	LC50	>1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50	>1000 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	>1000 mg/l	48 h	Daphnia magna	
	Fish toxicity	NOEC	0,182 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)
	Crustacea toxicity	NOEC	0,317 mg/l	21 d	Daphnia magna	Company report (2010)

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
92128-66-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane			
	OECD Guideline 301 F	98%	28	
	Easily biodegradable (concerning to the criteria of the OECD)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-28-5	isobutane	1,09
92128-66-0	Hydrocarbons, C6-C7, n-alkanes, isoalkanes cyclic, < 5% n-hexane	3,4 - 5,2
106-97-8	butane	1,09
74-98-6	propane	1,09

BCF

CAS No	Chemical name	BCF	Species	Source
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics	144,3	calculated	Other company data (

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
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
Transport category:	2
Tunnel restriction code:	D

Inland waterways transport (ADN)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS
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

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, 959
Limited quantity:	1000 mL
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	
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

1999/13/EC (VOC): No information available.

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
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): 2 - clearly water contaminating

Additional information

94/69/EC (21st ATP). The benzene content of the product is less than 0.1%. It applies the annotation P. Classification and labeling as carcinogenic is not necessary.

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): 1,2.

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 R phrases (number and full text)

10	Flammable.
11	Highly flammable.
12	Extremely flammable.
38	Irritating to skin.
51	Toxic to aquatic organisms.
52	Harmful 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.

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
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.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
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.)