

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

1.1. Product identifier

Product form : Mixture
 Article number : 74504
 Product code : 74504

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

1.2.1. Relevant identified uses

Function or use category : Lubricants, Greases and Release Products

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

BARDAHL NL - OCD NEDERLAND BV
 Maxwellstraat 41
 3316 GP Dordrecht - Nederland
 T 0031 78 651 2322 - F 0031 78 617 4848
rjonker@bardahl.nl - www.bardahl.nl

1.4. Emergency telephone number

Emergency number : +31 (0) 6 2908 2010
 During office hours: 8.30 t/m 17:00 h

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 +353 1 809 2166 (public, 8am - 10pm, 7/7)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Aerosol, Category 1 H222;H229
 Skin corrosion/irritation, Category 2 H315
 Specific target organ toxicity — Single exposure, Category 3, Narcosis H336
 Aspiration hazard, Category 1 H304
 Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

The product has to be labeled due to the calculation procedure of the General Classification guideline for preparations of the EU", DIR.". Harmful : may cause lung damage if swallowed.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS07

GHS09

Signal word (CLP) : Danger

Hazardous ingredients : Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes; Hydrocarbons, C6-C7, n-alkanes, iso

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hazard statements (CLP)	: alkanes, cycloalkanes, <5% of n-hexane : H222 - Extremely flammable aerosol : H229 - Pressurised container: May burst if heated : H315 - Causes skin irritation : H336 - May cause drowsiness or dizziness : H411 - Toxic to aquatic life with long lasting effects
Precautionary statements (CLP)	: P101 - If medical advice is needed, have product container or label at hand : P501 - Dispose of contents/container to a facility for the collection of hazardous or special waste : P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F : P391 - Collect spillage : P312 - Call a POISON CENTER, a doctor if you feel unwell : P280 - Wear protective gloves : P271 - Use only outdoors or in a well-ventilated area : P261 - Avoid breathing vapours, spray : P211 - Do not spray on an open flame or other ignition source : P251 - Do not pierce or burn, even after use : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking : P102 - Keep out of reach of children

2.3. Other hazards

Other hazards. : Without adequate ventilation formation of explosive mixtures is possible.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isobutane	(CAS No) 75-28-5 (EC no) 200-857-2 (REACH-no) 01-2119485395-27	20 - 25	Flam. Gas 1, H220 Compressed gas, H280
Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes	(EC no) 927-510-4 (REACH-no) 01-2119475515-33-XXXX	10 - 20	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane	(EC no) 921-024-6 (REACH-no) 01-2119475514-35	10 - 20	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
propane (Note U)	(CAS No) 74-98-6 (EC no) 200-827-9 (REACH-no) 01-2119486944-21	10 - 20	Flam. Gas 1, H220 Compressed gas, H280
Butane	(CAS No) 106-97-8 (EC no) 203-448-7 (REACH-no) 01-2119474691-32	2.5 - 10	Flam. Gas 1, H220 Compressed gas, H280

Note U : When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Allow breathing of fresh air. Allow the victim to rest. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash with plenty of soap and water. Remove contaminated clothing immediately.
First-aid measures after eye contact	: Obtain medical attention if pain, blinking or redness persist. Ensure adequate flushing of eyes by separating eyelids with the fingers.
First-aid measures after ingestion	: Do NOT induce vomiting. Obtain emergency medical attention.

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

No additional information available

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Carbon dioxide. Powder.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : High temperature may liberate toxic gases.
Explosion hazard : May form flammable/explosive vapour-air mixture.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources.

6.1.1. For non-emergency personnel

Protective equipment : Wear proper protective equipment.
Emergency procedures : Keep public away from danger area. Ventilate area.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Ventilate area.

6.4. Reference to other sections

See Heading 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Good ventilation of the workplace required. Avoid contact with skin and eyes.
Precautions for safe handling : Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Container under pressure. Do not drill or burn even after use. Do not expose to temperatures exceeding 50 °C/ 122 °F. Do not spray on an open flame or other ignition source.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool place. Government regulations on storing packagings with pressurized containers must be observed.
Incompatible materials : Direct sunlight. Heat sources.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propane (74-98-6)		
EU	IOELV TWA (ppm)	1000 ppm
Netherlands	Suffocating	

Additional information : The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace

8.2. Exposure controls

Personal protective equipment : Gloves. Safety glasses.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hand protection	: Gloves material: Nitrile. Wear suitable gloves resistant to chemical penetration. Penetration time of glove material: ≥ 240 min. Recommended thickness of the material: ≥ 0.45 mm
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. High gas/vapour concentration: gas mask with filter type AX



Other information	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothing immediately. Do not breathe gas, fumes, vapour or spray. Avoid contact with skin and eyes.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Aerosol.
Colour	: white.
Odour	: Solvent.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: > 200 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.67482 g/cm ³ (20°C)
Solubility	: Material nearly insoluble in water. Organic solvent:73.3%
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: 494.9 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

No decomposition if used according to specifications.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

10.4. Conditions to avoid

No additional information available

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10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. Aldehyde.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Irritating. vapours work intoxicating

Isobutane (75-28-5)

LC50 inhalation rat (mg/l)	> 50 mg/l/4h
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Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

LD50 oral rat	> 5840 mg/kg
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LD50 dermal rat	> 2920 mg/kg
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LC50 inhalation rat (mg/l)	> 23300 mg/l/4h
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Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane

LD50 oral rat	> 5840 mg/kg
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LD50 dermal rat	> 2920 mg/kg
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LC50 inhalation rat (mg/l)	< 25.2 mg/l/4h
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propane (74-98-6)

LC50 inhalation rat (mg/l)	20 mg/l/4h
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Butane (106-97-8)

LC50 inhalation rat (mg/l)	658 mg/l/4h
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Skin corrosion/irritation : Irritant to skin and mucous membranes

Serious eye damage/irritation : No irritant effect

Respiratory or skin sensitisation : No sensitisation responses were observed

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Hydrocarbons, C7, n-alkanes, isoalkanes, cycloalkanes

EC50 Daphnia 1	3 mg/l
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Hydrocarbons, C6-C7, n-alkanes, iso alkanes, cycloalkanes, <5% of n-hexane

LC50 other aquatic organisms 1	11.4 mg/l (Oncorhynchus mykiss)
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EC50 Daphnia 1	3 mg/l (Daphnia magna)
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EC50 72h algae (1)	30 - 100 mg/l (Pseudokirchneriella subcapitata)
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LOEC (chronic)	0.32 mg/l (Daphnia magna)
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NOEC (chronic)	0.17 mg/l (Daphnia magna)
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Butane (106-97-8)

LC50 fish 1	680 mg/l (96h)
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12.2. Persistence and degradability

Isobutane (75-28-5)

Persistence and degradability	Readily biodegradable.
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propane (74-98-6)

Persistence and degradability	Readily biodegradable.
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Butane (106-97-8)

Persistence and degradability	Readily biodegradable.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

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Ecology - soil	Toxic to fish. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Prevent entry to sewers and public waters. Endangering to drinking water. Harmful to aquatic organisms. In surface also poisonous for fish and plankton.
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Isobutane (75-28-5)

Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.
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propane (74-98-6)

Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.
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Butane (106-97-8)

Ecology - soil	If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
European List of Waste (LoW) code	: 16 05 04* - gases in pressure containers (including halons) containing dangerous substances 15 01 04 - metallic packaging

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 1950
UN-No. (IMDG)	: 1950
UN-No. (IATA)	: 1950
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: AEROSOLS
Proper Shipping Name (IMDG)	: AEROSOLS
Proper Shipping Name (IATA)	: Aerosols, flammable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 1950 AEROSOLS (Aerosols, Flammable), 2.1, (D), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1950 AEROSOLS, 2.1
Transport document description (IATA)	: UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 2.1
Danger labels (ADR)	: 2.1



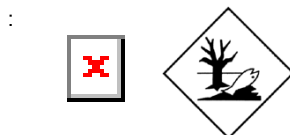
IMDG

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Transport hazard class(es) (IMDG) : 2.1
Danger labels (IMDG) : 2.1



IATA

Transport hazard class(es) (IATA) : 2.1
Hazard labels (IATA) : 2.1



ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable
Packing group (ADN) : Not applicable
Packing group (RID) : Not applicable

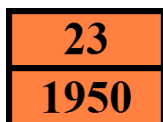
14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : 5F
Special provisions (ADR) : 190, 327, 344, 625
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E0
Packing instructions (ADR) : P207, LP02
Special packing provisions (ADR) : PP87, RR6, L2
Mixed packing provisions (ADR) : MP9
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V14
Special provisions for carriage - Loading, unloading and handling (ADR) : CV9, CV12
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 23
Orange plates :



Tunnel restriction code (ADR) : D

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- Transport by sea

Special provisions (IMDG)	: 63, 190, 277, 327, 344, 959
Limited quantities (IMDG)	: SP277
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P207, LP02
Special packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D
EmS-No. (Spillage)	: S-U
Stowage category (IMDG)	: None

- Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provisions (IATA)	: A145, A167
ERG code (IATA)	: 10L

- Inland waterway transport

No data available

- Rail transport

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	74504
28. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Carcinogen category 1A or 1B (Table 3.1) or Carcinogen category 1 or 2 (Table 3.2) and listed as follows: Carcinogen category 1A (Table 3.1)/Carcinogen category 1 (Table 3.2) listed in Appendix 1 Carcinogen category 1B (Table 3.1)/Carcinogen category 2 (Table 3.2) listed in Appendix 2	74504
29. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Germ cell Mutagen category 1A or 1B (Table 3.1) or Mutagen category 1 or 2 (Table 3.2) and listed as follows: Mutagen category 1A (Table 3.1)/Mutagen category 1 (Table 3.2) listed in Appendix 3 Mutagen category 1B (Table 3.1)/Mutagen category 2 (Table 3.2) listed in Appendix 4	74504
30. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Toxic to Reproduction category 1A or 1B (Table 3.1) or Toxic to Reproduction category 1 or 2 (Table 3.2) and listed as follows: Reproductive toxicant category 1A adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 1 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 5 Reproductive toxicant category 1B adverse effects on sexual function and fertility or on development (Table 3.1) or Reproductive toxicant category 2 with R60 (May impair fertility) or R61 (May cause harm to the unborn child) (Table 3.2) listed in Appendix 6	74504
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	74504

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Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 494.9 g/l

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No

SECTION 16: Other information

Indication of changes:

1.2	Function or use category	Added	
2.2	Precautionary statements (CLP)	Modified	
15.2	Chemical safety assessment	Modified	

Abbreviations and acronyms:

Abbreviations and acronyms: RID: Regulations Concerning the International Transport of Dangerous Goods by Rail ICAO: International Civil Aviation Organization ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association 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) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

Full text of H- and EUH-statements:

Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Compressed gas	Gases under pressure : Compressed gas
Flam. Gas 1	Flammable gases, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H220	Extremely flammable gas
H222	Extremely flammable aerosol
H225	Highly 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

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product