

## SAFETY DATA SHEET: Freeze-Ease Pro

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

#### 1.1. Product Identifier

**Trade Name**

Freeze-Ease Pro

**Product no.**

DC935

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

**Relevant identified uses of the substance or mixture**

Lubricant

Restricted to professional users.

**Uses descriptors (REACH)**

Product Category	Description
PC 24	Lubricants, Greases and Release Products

**Uses advised against**

None known.

#### 1.3. Details of the supplier of the safety data sheet

**Company and address****DC Lubricants Limited**

7 The Old Mill, Reading Road

Pangbourne

Reading, RG8 7HY, UK

+44 118 304 8449

<https://dclubricants.uk/>**Contact person**

Product Safety Department

**E-mail**

hello@dclubricants.uk

**Revision**

13/05/2023

**SDS Version**

1.0

**Emergency telephone number**

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures"

### SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

#### 2.1. Classification of the substance or mixture

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

Skin Irrit. 2; H315, Causes skin irritation.

Eye Irrit. 2; H319, Causes serious eye irritation.

Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

## 2.2. Label elements

### Hazard pictogram(s)



### Signal word

Danger

### Hazard statement(s)

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

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

Harmful to aquatic life with long lasting effects. (H412)

### Precautionary statement(s)

#### General

-

#### Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)

Do not pierce or burn, even after use. (P251)

Wear eye protection/protective gloves/protective clothing. (P280)

Do not spray on an open flame or other ignition source. (P211)

Do not breathe spray. (P260)

Use only outdoors or in a well-ventilated area. (P271)

Avoid release to the environment. (P273)

#### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. (P305+P351+P338)

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)

Call a POISON CENTRE/doctor if you feel unwell. (P312)

#### Storage

Store in a well-ventilated place. (P403)

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. (P410+P412)

#### Disposal

Dispose of contents/container in accordance with local regulation (P501)

#### Hazardous substances

Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics.

#### Additional labelling

Not applicable.

## 2.3. Other hazards

### Additional warnings

In the event of leaks, high concentrations of gases can quickly form. They can be toxic, asphyxiating, or explosive.

May form combustible dust concentrations in air.

Take action to prevent static discharges.

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
isobutane (containing ≥ 0,1 % butadiene (203-450-8));butane (containing ≥ 0,1 % butadiene (203-450-8))	CAS No.: 106-97-8 EC No.: 203-448-7 UK-REACH: Index No.: 601-004-01-8	40-60%	Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	[11]
Hydrocarbons, C11-C14, nalkanes, isoalkanes, cyclics, <2% aromatics	CAS No.: 64742-47-8 EC No.: 926-141-6	15-25%	EUH066 Asp. Tox. 1, H304	[19]
propane	CAS No.: 74-98-6 EC No.: 200-827-9 UK-REACH: Index No.: 601-003-00-5	15-25%	Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	
isobutane (containing ≥ 0,1 % butadiene (203-450-8));butane (containing ≥ 0,1 % butadiene (203-450-8))	CAS No.: 75-28-5 EC No.: 200-857-2 UK-REACH: Index No.: 601-004-01-8	5-10%	Flam. Gas 1A, H220 Press. Gas (Liq.) , H280	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	CAS No.: 95-38-5 EC No.: 202-414-9 UK-REACH: Index No.:	<1%	Acute Tox. 4, H302 Skin Corr. 1C, H314 STOT RE 2, H373 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

#### Other information

[11] The classification as a carcinogen / mutagen will not be taken into account as the substance contains less than 0,1 % w/w 1,3-butadiene (EINECS No 203-450-8) (CLP, Annex VI, note K).

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General Information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet.  
Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

#### Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention

#### Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

#### Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

**Information to medics**

Bring this safety data sheet or the label from this product.

**SECTION 5: Firefighting measures****5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Extremely flammable aerosol. Pressurised container. In a fire or if heated, a pressure increase will occur and the container may burst.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact

The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Accidental releases always pose a serious risk of fire or explosion.

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

**6.2. Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

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

Collect spills carefully. Moist the material with water in order to prevent the formation and propagation of dust.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

**6.4. Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

- May form combustible dust concentrations in air.
- Take action to prevent static discharges.
- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Do not spray on an open flame or other ignition source.
- Do not pierce or burn, even after use.
- Smoking, drinking and consumption of food is not allowed in the work area.
- See section 8 "Exposure controls/personal protection" for information on personal protection.

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

- Must be stored in a cool and well-ventilated area, away from possible sources of ignition.
- Pressurized gas packs (spray cans, aerosol cans) must be stored behind a wire mesh, which allows gases to escape and holds back packs flying around.
- Avoid the suspension of dust in the air
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Use non-sparking tools.

#### Recommended storage material

- Keep only in original packaging.

#### Storage temperature

- Dry, cool and well ventilated
- Store out of direct sunlight.

#### Incompatible materials

- Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

### 7.3 Specific end use(s)

- This product should only be used for applications quoted in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

- isobutane (containing  $\geq 0,1$  % butadiene (203-450-8));butane (containing  $\geq 0,1$  % butadiene (203-450-8))
- Long term exposure limit (8 hours) (ppm): 600
- Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 1450
- Short term exposure limit (15 minutes) (ppm): 750
- Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 1810
- Annotations:
- Carc1 = Capable of causing cancer and/or heritable genetic damage if it contains more than 0.1% of buta-1,3-diene.
- The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
- EH40/2005 Workplace exposure limits (Fourth Edition 2020).

#### DNEL

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Duration:	Route of exposure:	DNEL:
Long term - Systemic effects - Workers	Dermal	60 µg/kgbw/day
Short term - Systemic effects - Workers	Dermal	2 mg/kg bw/day
Long term - Systemic effects - Workers	Inhalation	460 µg/m <sup>3</sup>
Short term - Systemic effects - Workers	Inhalation	14 mg/m <sup>3</sup>

**PNEC**

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol

Route of exposure:	Duration of exposure:	PNEC:
Freshwater		30 ng/L
Freshwater sediment		376 µg/kg
Intermittent release (freshwater)		300 ng/L
Marine water		3 ng/L
Marine water sediment		37.6 µg/kg
Sewage treatment plant		260 µg/L
Soil		75 µg/kg

**8.2 Exposure controls**

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

**General recommendations**

When transferring the materials, dust clouds should be kept at an absolute minimum. Handling should be slow and deliberate. The materials should be transferred from one container to another using a non-sparking, conductive metal scoop.

When mixing the material with other dry ingredients, frictional heat should be avoided. The best type of mixer for a dry mixing operation is one that contains no moving parts, but rather affects a tumbling action, such as a conical blender. Introduction of an inert atmosphere in the blender is highly recommended since dust clouds are generated. All equipment must be well grounded.

Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

Professional users are subjected to the legally set maximum concentrations for occupational exposure.

See occupational hygiene limit values above.

**Appropriate technical measures**

Airborne gas and dust concentrations must be kept at a minimum. Provide efficient mechanical ventilation. If not possible use suitable respiratory equipment.

It is recommended that all dust control equipment such as local exhaust ventilation contain an explosion suppression system.

**Hygiene measures**

Take off contaminated clothing and wash it before reuse.

**Measures to avoid environmental exposure**


Provide adequate general and local exhaust ventilation.

**Individual protection measures, such as personal protective equipment**


**Generally**

Use only UKCA marked protective equipment.


**Respiratory Equipment**

Work situation	Type	Class	Colour	Standards	
	Respiratory protection is not needed in the event of adequate ventilation.				
In case of inadequate ventilation	Combination filter A2P2	Class 2	Brown/White	EN14387	


**Skin protection**

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn. Wear a protective suit in the event of prolonged periods of work with the product.	-	-	

**Hand protection**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0.5	> 240	EN374-2, EN374-3, EN388	

**Eye protection**

Recommended	Standards	
Safety glasses with side shields.	EN166	

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

**Physical state**

Aerosol

**Colour**

Colourless

**Odour / Odour threshold**

Solvent

**pH**

Not applicable

**Density (g/cm<sup>3</sup>)**

0.6 (20 °C)

**Kinematic viscosity**

Testing not relevant or not possible due to the nature of the product.

**Particle characteristics**

Not applicable

**Phase changes**

**Melting point/Freezing point (°C)**

No data available

**Softening point/range (waxes and pastes) (°C)**

Does not apply to aerosols

**Boiling point (°C)**

-44.5

**Vapour pressure**

5500 hPa (20 °C)

**Relative vapour density**

No data available

**Decomposition temperature (°C)**

No data available.

**Data on fire and explosion hazards****Flash point (°C)**  
-97**Flammability (°C)**  
The material is ignitable.**Auto-ignition temperature (°C)**  
>200**Lower and upper explosion limit (% v/v)**  
0.5 - 10.9**Solubility****Solubility in water**  
Practically insoluble**n-octanol/water coefficient**  
Testing not relevant or not possible due to the nature of the product.**Solubility in fat (g/L)**  
Testing not relevant or not possible due to the nature of the product.**9.2 Other information****Formation of explosible dust/air mixtures**  
Yes**Evaporation rate (n-butylacetate = 100)**  
No data available.**VOC (g/L)**  
570.**Other physical and chemical parameters**  
No data available.**Oxidizing properties**  
No data available**SECTION 10: Stability and reactivity****10.1. Reactivity**

No data available.

**10.2. Chemical stability**

The product is stable under the conditions, noted in section 7 "Handling and storage".

**10.3. Possibility of hazardous reactions**

None known.

**10.4. Conditions to avoid**

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

Avoid the suspension of dust in the air.

Extremes of temperature.

**10.5. Incompatible materials**

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

**10.6. Hazardous decomposition products**

The product is not degraded when used as specified in section 1.



## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity**

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

**Skin corrosion/irritation**

Causes skin irritation.

**Serious eye damage/irritation**

Causes serious eye irritation.

**Respiratory sensitisation**

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

**Skin sensitisation**

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

**Germ cell mutagenicity**

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

**Carcinogenicity**

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

**Reproductive toxicity**

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

**STOT-single exposure**

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

**STOT-repeated exposure**

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

**Aspiration hazard**

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

### 11.2. Information on other hazards

**Long term effects**

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

**Endocrine disrupting properties**

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

**Other information**

None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product/substance Species: Duration: Test: Result:	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics Daphnia, Daphnia magna 48 hours ELO 1000 mg/L
Product/substance Species: Duration: Test: Result:	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics Fish, Oncorhynchus mykiss 96 hours LLO 1000 mg/L
Product/substance Species: Duration: Test: Result:	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics Algae, Pseudokirchneriella subcapitata 72 hours ELO 1000 mg/L

Harmful to aquatic life with long lasting effects.

**12.2. Persistence and degradability**

Product/substance Conclusion:	Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics Readily biodegradable
----------------------------------	---

**12.3. Bioaccumulative potential**

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

**12.4. Mobility in soil**

No data available.

**12.5. Results of PBT and vPvB assessment**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

**12.6. Endocrine disrupting properties**

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

**12.7. Other adverse effects**

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

HP 14 - Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.




**EWC code**

Not applicable.

**Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: Transport information**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L Tunnel restriction code: (D) See below for additional information.
IMDG	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	Limited quantities: 1 L EmS: F-D S-U See below for additional information
IATA	UN1950	AEROSOLS	Transport hazard class: 2 Label: 2.1 Classification code: 5F 	-	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

**Additional information**

ADR / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

**14.6. Special precautions for user**

Not applicable.

**14.7. Maritime transport in bulk according to IMO instruments**

No data available.

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

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

**Demands for specific education**

No specific requirements.

**SEVESO - Categories / dangerous substances**

P3a - FLAMMABLE AEROSOLS, Qualifying quantity (lower-tier): 150 tonnes (net) / (upper-tier): 500 tonnes (net)

**REACH, Annex XVII**

isobutane (containing  $\geq 0,1$  % butadiene (203-450-8));butane (containing  $\geq 0,1$  % butadiene (203-450-8)) is subject to UK-REACH restrictions, UK-REACH annex XVII (entry 40).

propane is subject to UK-REACH restrictions, UK-REACH annex XVII (entry 40).

isobutane (containing  $\geq 0,1$  % butadiene (203-450-8));butane

**Additional information**

Not applicable.

**Sources**

The Aerosol Dispensers Regulations 2009 No. 2824, amended in 2014 (No. 1130) and in 2018 (No. 29).

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

**15.2. Chemical safety assessment**

No

**SECTION 16: Other information****Full text of H-phrases as mentioned in section 3**

EUH066, Repeated exposure may cause skin dryness or cracking.  
H220, Extremely flammable gas.  
H280, Contains gas under pressure; may explode if heated.  
H302, Harmful if swallowed.  
H304, May be fatal if swallowed and enters airways.  
H314, Causes severe skin burns and eye damage.  
H373, May cause damage to organs through prolonged or repeated exposure.  
H400, Very toxic to aquatic life.  
H410, Very toxic to aquatic life with long lasting effects.

**The full text of identified uses as mentioned in section 1**

PC 24 = Lubricants, Greases and Release Products

**Abbreviations and acronyms**

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway  
ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS = Chemical Abstracts Service  
CE = Conformité Européenne (European conformity)  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
CSA = Chemical Safety Assessment  
CSR = Chemical Safety Report  
DMEL = Derived Minimal Effect Level  
DNEL = Derived No Effect Level  
EINECS = European Inventory of Existing Commercial chemical Substances  
ES = Exposure Scenario  
EUH statement = CLP-specific Hazard statement  
EuPCS = European Product Categorisation System  
EWC = European Waste Catalogue  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
GWP = Global warming potential  
IARC = International Agency for Research on Cancer (IARC)  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SCL = A specific concentration limit  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

**Additional information**

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.  
The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.  
The classification of the mixture in regard to physical hazards has been based on experimental data.

**The safety data sheet is validated by**

Product Safety Department

**Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en