SAFETY DATA SHEET

Beal Brake & Airline Sealant (LS10)

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

1.1. Product identifier

Trade name

Beal Brake & Airline Sealant (LS10)

Product no.

301285

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

Relevant identified uses of the substance or mixture

Adhesive/Binding Agent

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Beal UK Ltd
Sterling Works,
Texas Street, Tingley
Leeds LS27 0HG
t: 0113 253 8888 f: 0800 357 650
e-mail: quality@beal.org.uk
www.beal.org.uk

Revision

19/06/2024

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).
See section 4 “First aid measures”.

SECTION 2: Hazards identification

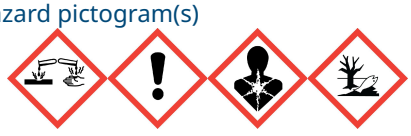
Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Asp. Tox. 1; H304, May be fatal if swallowed and enters airways.
Skin Irrit. 2; H315, Causes skin irritation.
Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Dam. 1; H318, Causes serious eye damage.
Aquatic Chronic 1; H410, Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

May be fatal if swallowed and enters airways. (H304)

Causes skin irritation. (H315)
May cause an allergic skin reaction. (H317)
Causes serious eye damage. (H318)
Very toxic to aquatic life with long lasting effects. (H410)

Precautionary statement(s)

General

If medical advice is needed, have product container or label at hand. (P101)
Keep out of reach of children. (P102)

Prevention

Avoid breathing mist/vapour. (P261)
Wear eye protection/protective gloves/protective clothing. (P280)

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)
Immediately call a POISON CENTER/doctor. (P310)

Storage

Store locked up. (P405)

Disposal

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

Hazardous substances

2,2'-ethylenedioxydiethyl dimethacrylate
Bis(isopropyl)naphthalene
Methacrylic acid, monoester with propane-1,2-diol
α,α-dimethylbenzyl hydroperoxide;cumene hydroperoxide
2'-phenylacetohydrazide
acrylic acid;prop-2-enoic acid

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

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. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
2,2'-ethylenedioxydiethyl dimethacrylate	CAS No.: 109-16-0 EC No.: 203-652-6 UK-REACH: EURO 01-2119969287-21-XXXX Index No.:	25-40%	Skin Sens. 1B, H317	
Bis(isopropyl)naphthalene	CAS No.: 38640-62-9 EC No.: 254-052-6 UK-REACH: EURO 01-2119565150-48-XXXX Index No.:	25-40%	Asp. Tox. 1, H304 Aquatic Chronic 1, H410 (M=1)	
Methacrylic acid, monoester with propane-1,2-diol	CAS No.: 27813-02-1 EC No.: 248-666-3 UK-REACH: EURO 01-2119490226-37-XXXX Index No.:	5-10%	Skin Sens. 1, H317 Eye Irrit. 2, H319	

α,α-dimethylbenzyl hydroperoxide;cumene hydroperoxide	CAS No.: 80-15-9 EC No.: 201-254-7 UK-REACH: Index No.: 617-002-00-8	5-10%	Org. Perox. E, H242 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 (SCL: 10.00 %) Skin Irrit. 2, H315 (SCL: 3.00 %) Eye Dam. 1, H318 Acute Tox. 3, H331 STOT SE 3, H336 STOT RE 2, H373 Aquatic Chronic 1, H410 (M=1)	
2'-phenylacetohydrazide	CAS No.: 114-83-0 EC No.: 204-055-3 UK-REACH: Index No.:	<1%	Acute Tox. 3, H301 Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 STOT SE 3, H335	
acrylic acid;prop-2-enoic acid	CAS No.: 79-10-7 EC No.: 201-177-9 UK-REACH: EURO 01-2119452449-31-XXXX Index No.: 607-061-00-8	<1%	Flam. Liq. 3, H226 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1A, H314 Acute Tox. 4, H332 STOT SE 3, H335 (SCL: 1.00 %) Aquatic Acute 1, H400 (M=1)	[1]
N,N-dimethyl-o-toluidine;N,N-dimethyl-p-toluidine;N,N-dimethyl-m-toluidine	CAS No.: 99-97-8 EC No.: 202-805-4 UK-REACH: Index No.: 612-056-00-9	<1%	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 3, H331 STOT RE 2, H373 Aquatic Chronic 3, H412	

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

Other information

[1] European occupational exposure limit.

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

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners. If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes with plenty of water or salt water (20-30 °C) for at least 30 minutes and continue until irritation stops. Remove contact lenses. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER/doctor.
Do not induce vomiting! If vomiting occurs, keep head facing down so that vomit does not get into the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have

swallowed the product should therefore be kept under medical attention for at least 48 hours.

Burns

Not applicable.

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

This product contains substances that can cause chemical pneumonia if swallowed. Symptoms of chemical pneumonia may appear after several hours.
Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.
Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.
The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

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

IF exposed or concerned: Get immediate 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

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 / CO2)

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.
Hazchem Code: ●3Z

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.
Ensure adequate ventilation, especially in confined areas.
Contaminated areas may be slippery.

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
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

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.
Avoid direct contact with the product.
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

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated

Incompatible materials

Strong oxidizing 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

acrylic acid;prop-2-enoic acid
Long term exposure limit (8 hours) (ppm): 10
Long term exposure limit (8 hours) (mg/m³): 29
Short term exposure limit (15 minutes) (ppm): 20 (1 min.)
Short term exposure limit (15 minutes) (mg/m³): 59 (1 min.)

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'-ethylenedioxydiethyl dimethacrylate

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	8.33 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	13.9 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	14.5 mg/m³
Long term – Systemic effects - Workers	Inhalation	48.5 mg/m³
Long term – Systemic effects - General population	Oral	8.33 mg/kg bw/day

acrylic acid;prop-2-enoic acid

Duration:	Route of exposure:	DNEL:
Long term – Local effects - General population	Inhalation	3.6 mg/m³
Long term – Local effects - Workers	Inhalation	30 mg/m³
Long term – Systemic effects - General population	Inhalation	3.6 mg/m³
Long term – Systemic effects - Workers	Inhalation	30 mg/m³
Short term – Local effects - General population	Inhalation	3.6 mg/m³
Short term – Local effects - Workers	Inhalation	30 mg/m³
Short term – Systemic effects - General population	Inhalation	3.6 mg/m³
Short term – Systemic effects - Workers	Inhalation	30 mg/m³
Long term – Systemic effects - General population	Oral	400 µg/kgbw/day
Short term – Systemic effects - General population	Oral	1.2 mg/kg bw/day

Bis(isopropyl)naphthalene

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	850 µg/kgbw/day
Long term – Systemic effects - Workers	Dermal	2.38 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	1.48 mg/m³
Long term – Systemic effects - Workers	Inhalation	8.4 mg/m³
Long term – Systemic effects - General population	Oral	850 µg/kgbw/day

Methacrylic acid, monoester with propane-1,2-diol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	2.5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	4.2 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	4.35 mg/m³
Long term – Systemic effects - Workers	Inhalation	14.7 mg/m³
Long term – Systemic effects - General population	Oral	2.5 mg/kg bw/day

α,α-dimethylbenzyl hydroperoxide;cumene hydroperoxide

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Inhalation	6 mg/m³

PNEC

2,2'-ethylenedioxydiethyl dimethacrylate

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		16.4 µg/L
Freshwater sediment		185 µg/kg
Intermittent release (freshwater)		16.4 µg/L
Marine water		1.64 µg/L
Marine water sediment		18.5 µg/kg
Sewage treatment plant		1.7 mg/L
Soil		27.4 µg/kg

acrylic acid;prop-2-enoic acid

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3 µg/L
Freshwater sediment		23.64 µg/kg
Intermittent release (freshwater)		1.3 µg/L
Marine water		300 ng/L
Marine water sediment		2.364 µg/kg
Predators		30 mg/kg
Sewage treatment plant		900 µg/L
Soil		1 mg/kg

Bis(isopropyl)naphthalene

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		236 ng/L
Freshwater sediment		853 µg/kg
Marine water		23.6 ng/L
Marine water sediment		85.3 µg/kg
Predators		25 mg/kg
Sewage treatment plant		150 µg/L
Soil		171 µg/kg

Methacrylic acid, monoester with propane-1,2-diol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		904 µg/L
Freshwater sediment		6.28 mg/kg
Intermittent release (freshwater)		972 µg/L

Marine water	90.4 µg/L
Marine water sediment	6.28 mg/kg
Sewage treatment plant	10 mg/L
Soil	727 µg/kg

α,α-dimethylbenzyl hydroperoxide;cumene hydroperoxide

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		3.1 µg/L
Freshwater sediment		23 µg/kg
Intermittent release (freshwater)		31 µg/L
Marine water		310 ng/L
Marine water sediment		2.3 µg/kg
Sewage treatment plant		350 µg/L
Soil		2.9 µg/kg

8.2. Exposure controls

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

General recommendations

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

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.
Ensure that eyewash stations and safety showers are located within easy reach.
Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
No special when used as intended.			

Skin protection

Recommended	Type/Category	Standards	
Wear appropriate protection clothing, e.g. coveralls in polypropylene or working clothes in cotton or polyester.	-	-	

Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Butyl	0,7	> 30	EN374-2, EN374-3, EN388, EN421	

Eye protection

Type	Standards
Safety glasses	EN166

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state
Liquid

Colour
Yellow

Odour / Odour threshold
Mild

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

Density (g/cm^3)
Testing not relevant or not possible due to the nature of the product.

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

Particle characteristics
Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)
Testing not relevant or not possible due to the nature of the product.

Softening point/range (°C)
Does not apply to liquids.

Boiling point (°C)
Testing not relevant or not possible due to the nature of the product.

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

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

Decomposition temperature (°C)
Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)
Testing not relevant or not possible due to the nature of the product.

Flammability (°C)
Testing not relevant or not possible due to the nature of the product.

Auto-ignition temperature (°C)
Testing not relevant or not possible due to the nature of the product.

Lower and upper explosion limit (% v/v)
Testing not relevant or not possible due to the nature of the product.

Solubility

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

n-octanol/water coefficient (LogKow)
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

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

Other physical and chemical parameters
No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Highly reactive and can auto-polymerize as a result of internal peroxide accumulation. The peroxides formed in these reactions are extremely shock- and heat-sensitive.

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
Heat
Sunlight

10.5. Incompatible materials
Strong oxidizing 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 as retained and amended in UK law

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 damage.

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

Skin sensitisation
May cause an allergic skin reaction.

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
May be fatal if swallowed and enters airways.

11.2. Information on other hazards

Long term effects
The product contains substances that cause serious eye damage. Contact with these substances can cause irreversible effects on the eye / serious eye damage.

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

Other information
acrylic acid;prop-2-enoic acid has been classified by IARC as a group 3 carcinogen.
N,N-dimethyl-o-toluidine;N,N-dimethyl-p-toluidine;N,N-dimethyl-m-toluidine has been classified by IARC as a group 2B carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

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

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

Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 6 - Acute toxicity

HP 8 – Corrosive

HP 13 – Sensitising

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.

Specific labelling

Contaminated packing

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

SECTION 14: Transport information

	14.1 14.2 UN / ID UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Other Env** information:	
ADR	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6  	III	Yes	Limited quantities: 5 L Tunnel restriction code: (-) See below for additional information.
IMDG	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6  	III	Yes	Limited quantities: 5 L EmS: F-A S-F See below for additional information.

	14.1 14.2 UN / ID UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
IATA	UN3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Transport hazard class: 9 Label: 9 Classification code: M6 	III	Yes	See below for additional information.

* Packing group

** Environmental hazards

Additional information

These substances when carried in single or combination packaging's containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids, are not subject to any other provisions of ADR/IMDG/IATA provided the packaging's meet the general provisions of 4.1.1.1, 4.1.1.2, 4.1.1.4 - 4.1.1.8 (ADR, IMDG) / 5.0.2.4.1, 5.0.2.6.1.1, 5.0.2.8 (IATA).

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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.

Hazchem Code: ●3Z

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

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

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

E1 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 100 tonnes / (upper-tier): 200 tonnes

UK-REACH, Annex XVII

acrylic acid;prop-2-enoic acid is subject to UK-REACH restrictions, UK-REACH annex XVII (entry 40).

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999.

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

H226, Flammable liquid and vapour.
H242, Heating may cause a fire.
H301, Toxic if swallowed.
H302, Harmful if swallowed.
H304, May be fatal if swallowed and enters airways.
H311, Toxic in contact with skin.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H331, Toxic if inhaled.
H332, Harmful if inhaled.
H335, May cause respiratory irritation.
H336, May cause drowsiness or dizziness.
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.
H412, Harmful to aquatic life with long lasting effects.

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 safety data sheet is validated by

Paul Reeds

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