

## SAFETY DATA SHEET

# Rizistal standard cure epoxy hardener

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

### 1.1. Product identifier

#### Trade name

Rizistal standard cure epoxy hardener

#### Other names / Synonyms

FF150, RM208, EC229, EC228, EC240, EC248, EC250, EC258, EC350, EC358, EC400, R,190, RM10, RM10D, RM108, SE310, EC400, NS430

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

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

None known.

Restricted to professional users.

#### Uses advised against

None known.

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

#### Company and address

**John L. Lord & Son (Rizistal) Ltd.**

Unit 4, Park 66

BL9 8RZ Bury

England

+44 (0) 161 764 4617

www.john-lord.co.uk

#### Contact person

Sam Norris

#### E-mail

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#### Revision

14/10/2024

#### SDS Version

4.0

#### Date of previous version

14/10/2024 (4.0)

### 1.4. Emergency telephone number

Healthcare professionals: Dial 0344 892 0111 to reach The National Poisons Information Service (NPIS) (24 hour service)

General public:

England - Dial 111 to reach NHS 111 (24 hour service)

Scotland - Dial 112 to reach NHS 24 (24 hour service)

Wales - Dial 111 or 0845 4647 to reach NHS Direct (24 hour 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

Acute Tox. 4; H302, Harmful if swallowed.

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

Acute Tox. 4; H332, Harmful if inhaled.

Repr. 2; H361d, Suspected of damaging the unborn child.

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)

Harmful if swallowed or if inhaled. (H302+H332)  
Causes severe skin burns and eye damage. (H314)  
May cause an allergic skin reaction. (H317)  
Suspected of damaging the unborn child. (H361d)  
Harmful to aquatic life with long lasting effects. (H412)

### Precautionary statement(s)

#### General

-

#### Prevention

Obtain special instructions before use. (P201)  
Do not breathe vapour/mist. (P260)  
Wear eye protection/protective gloves/protective clothing. (P280)

#### Response

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. (P303+P361+P353)  
IF exposed or concerned: Get medical advice/attention. (P308+P313)

#### Storage

-

#### Disposal

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

### Hazardous substances

benzyl alcohol  
3-aminomethyl-3,5,5-trimethylcyclohexylamine  
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with  
m-phenylenebis(methylamine)  
m-phenylenebis(methylamine)  
salicylic 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) 2023/707.

## 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
benzyl alcohol	CAS No.: 100-51-6 EC No.: 202-859-9 UK-REACH: Index No.: 603-057-00-5	60-80%	Acute Tox. 4, H302 Eye Irrit. 2, H319 Acute Tox. 4, H332	
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 2855-13-2 EC No.: 220-666-8 UK-REACH: Index No.: 612-067-00-9	25-40%	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318	

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)	CAS No.: 113930-69-1 EC No.: 500-302-7 UK-REACH: Index No.:	10-15%	Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 2, H411
m-phenylenebis(methylamine)	CAS No.: 1477-55-0 EC No.: 216-032-5 UK-REACH: Index No.:	10-15%	EUH071 Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1B, H317 Eye Dam. 1, H318 Acute Tox. 4, H332 Aquatic Chronic 3, H412
salicylic acid	CAS No.: 69-72-7 EC No.: 200-712-3 UK-REACH: Index No.: 607-732-00-5	10-15%	Acute Tox. 4, H302 Eye Dam. 1, H318 Repr. 2, H361d

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

## Other information

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## 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 injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### Skin contact

Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment.

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

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### Burns

Not applicable.

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

**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.

**Tissue-damaging effects:** This product contains substances with skin corrosive properties. Inhaled vapour or aerosols

may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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

IF exposed or concerned:

Get immediate medical advice/attention.

If skin irritation or rash occurs: 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

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:

Nitrogen oxides (NO<sub>x</sub>)

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

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

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.

The product should be tested for peroxides before distillation or evaporation and tested for peroxide formation or discarded after 1 year.

Avoid direct contact with the product.

Peroxide formation may be present anywhere in the container, including the sides, bottom, exterior and threaded cap. Peroxide formation in ppm concentrations may not be visually observable and must be identified through the use of appropriate testing procedures. If any of the following conditions exist, the material may be explosively unstable and will require stabilization prior to use:

1. Material appears to be degraded and or contaminated.
2. Material appears to be discolored.
3. Deterioration or distortion of storage container.
4. Thermal shock (sunlight).

5. Age of material exceeds recommended storage time.

Avoid contact during pregnancy and while nursing.

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 conditions

Dry, cool and well ventilated

### Incompatible materials

Keep only in original packaging.

## 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

No substances are listed in the national list of substances with an occupational exposure limit.

### DNEL

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Inhalation	73 µg/m <sup>3</sup>
Short term – Local effects - Workers	Inhalation	73 µg/m <sup>3</sup>

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	140 µg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	493 µg/m <sup>3</sup>

benzyl alcohol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	8 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	40 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	22 mg/m <sup>3</sup>
Short term – Systemic effects - Workers	Inhalation	110 mg/m <sup>3</sup>

m-phenylenebis(methylamine)

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	330 µg/kg bw/day
Long term – Local effects - Workers	Inhalation	200 µg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	1.2 mg/m <sup>3</sup>

salicylic acid

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	2.3 mg/kg bw/day
Long term – Local effects - Workers	Inhalation	5 mg/m <sup>3</sup>
Long term – Systemic effects - Workers	Inhalation	5 mg/m <sup>3</sup>

### PNEC

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure:	Duration of Exposure:	PNEC:
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Freshwater	60 µg/L
Freshwater sediment	5.784 mg/kg
Intermittent release (freshwater)	230 µg/L
Marine water	6 µg/L
Marine water sediment	578 µg/kg
Sewage treatment plant	3.18 mg/L
Soil	1.121 mg/kg

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with m-phenylenebis(methylamine)

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		1.46 µg/L
Freshwater sediment		4610000 mg/kg
Intermittent release (freshwater)		14.6 µg/L
Intermittent release (marine water)		1.46 µg/L
Marine water		146 ng/L
Marine water sediment		461000 mg/kg
Predators		3.33 mg/kg
Sewage treatment plant		8.889 mg/L
Soil		923 g/kg

benzyl alcohol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		1-1.02 mg/L
Freshwater sediment		5.27 mg/kg
Intermittent release (freshwater)		2.3 mg/L
Marine water		100-102 µg/L
Marine water sediment		527 µg/kg
Sewage treatment plant		39 mg/L
Soil		456 µg/kg

m-phenylenebis(methylamine)

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		94 µg/L
Freshwater sediment		12.4 mg/kg
Intermittent release (freshwater)		152 µg/L
Marine water		9.4 µg/L
Marine water sediment		1.24 mg/kg
Sewage treatment plant		10 mg/L
Soil		2.44 mg/kg

salicylic acid

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		200 µg/L
Freshwater sediment		1.42 mg/kg
Intermittent release (freshwater)		1 mg/L
Marine water		20 µg/L
Marine water sediment		142 µg/kg
Sewage treatment plant		162 mg/L

Soil

166 µg/kg

## 8.2. Exposure controls

Apply general control to prevent unnecessary exposure

### 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

Occupational exposure limits have not been defined for the substances in this product.

### Appropriate technical measures

Do not recirculate outlet air that contain the substances.

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

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

### 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
Combination filter A2P3	Class 2/3	Brown/White	EN14387



### Skin protection

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Cotton/Nitril	-	> 240	EN374-2, EN374-3, EN388



### 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

No relevant or available data due to the nature of the product.

#### Odour / Odour threshold

No relevant or available data due to the nature of the product.

#### pH

No relevant or available data due to the nature of the product.

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

No relevant or available data due to the nature of the product.

#### Kinematic viscosity

No relevant or available data due to the nature of the product.

#### Particle characteristics

Does not apply to liquids.

#### Phase changes

##### Melting point/Freezing point (°C)

No relevant or available data due to the nature of the product.

##### Softening point/range (°C)

Does not apply to liquids.

##### Boiling point (°C)

No relevant or available data due to the nature of the product.

##### Vapour pressure

No relevant or available data due to the nature of the product.

##### Relative vapour density

No relevant or available data due to the nature of the product.

##### Decomposition temperature (°C)

No relevant or available data due to the nature of the product.

#### Data on fire and explosion hazards

##### Flash point (°C)

No relevant or available data due to the nature of the product.

##### Flammability (°C)

No relevant or available data due to the nature of the product.

##### Auto-ignition temperature (°C)

No relevant or available data due to the nature of the product.

##### Lower and upper explosion limit (% v/v)

No relevant or available data due to the nature of the product.

#### Solubility

##### Solubility in water

No relevant or available data due to the nature of the product.

##### n-octanol/water coefficient (LogKow)

No relevant or available data due to the nature of the product.

##### Solubility in fat (g/L)

No relevant or available data due to the nature of the product.

#### 9.2. Other information

##### Oxidizing properties

No relevant or available data due to the nature of the product.

##### Other physical and chemical parameters

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

None known.

#### 10.5. Incompatible materials

Keep only in original packaging.

#### 10.6. Hazardous decomposition products

Thermal decomposition may produce corrosive vapours.

## 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

Harmful if swallowed.  
Harmful if inhaled.

##### Skin corrosion/irritation

Causes severe skin burns and eye damage.

##### 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

Suspected of damaging the unborn child.

##### 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

Reproductive toxicity: This product contains teratogenic substances, which may produce anomalies and/or developmental defects to the human offspring. Adverse effects include: death, growth retardation, congenital disorders, delayed mental development, and functional disorders.

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, irritations and burns in the respiratory organs as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

##### 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

Harmful 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 10 - Toxic for reproduction

HP 13 - Sensitising

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

20 01 27\* Paint, inks, adhesives and resins containing dangerous substances

#### Specific labelling

#### Contaminated packing

#### EWC code

15 01 10\* Packaging containing residues of or contaminated by dangerous substances

### 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	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

#### Additional information

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.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

##### Demands for specific education

No specific requirements.

##### Control of Major Accident Hazards (COMAH) - Categories / dangerous substances

Not applicable.

##### Additional information

Not applicable.

##### Sources

The Management of Health and Safety at Work Regulations 1999.

The Health and Safety at Work etc. Act 1974 Regulations 2013.

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

EUH071, Corrosive to the respiratory tract.  
H302, Harmful if swallowed.  
H314, Causes severe skin burns and eye damage.  
H317, May cause an allergic skin reaction.  
H318, Causes serious eye damage.  
H319, Causes serious eye irritation.  
H332, Harmful if inhaled.  
H361d, Suspected of damaging the unborn child.  
H411, 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

Samuel Norris

### 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