

SAFETY DATA SHEET

Rizistal Fast/Cold cure epoxy hardener

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

1.1. Product identifier

Trade name

Rizistal Fast/Cold cure epoxy hardener

Other names / Synonyms

RM30FC/CC, RM50FC/CC, EC240, EC248, EC250, EC258, EC350

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

Relevant identified uses of the substance or mixture

Flooring mixture, Part B

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

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Revision

14/10/2024

SDS Version

3.0

Date of previous version

14/10/2024 (3.0)

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. 1A; 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.

Repr. 2; H361, Suspected of damaging fertility or the unborn child.

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)

Harmful if swallowed. (H302)
Causes severe skin burns and eye damage. (H314)
May cause an allergic skin reaction. (H317)
Suspected of damaging fertility or the unborn child. (H361)
Very toxic to aquatic life with long lasting effects. (H410)

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

4-tert-butylphenol
Paraformaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenbis(methylamine) and trimethylhexane-1,6-diamine
m-phenylenebis(methylamine)
2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine
Phenol, styrenated

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.
The substance(s) shown below are considered to be endocrine disruptors according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707:
4-tert-butylphenol

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 |
|---|---|--------|---|------|
| 4-tert-butylphenol | CAS No.: 98-54-4 EC No.: 202-679-0 UK-REACH: Index No.: 604-090-00-8 | 40-60% | Skin Irrit. 2, H315 Eye Dam. 1, H318 Repr. 2, H361 Aquatic Chronic 1, H410 (M=1) | [5] |
| Paraformaldehyde, polymeric reaction products with 4-tert-butylphenol, m-phenylenbis(methylamine) and trimethylhexane-1,6-diamine | CAS No.: 2408029-04-7 EC No.: 860-159-4 UK-REACH: Index No.: | 15-25% | Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412 | |

| | | | | |
|---|---|--------|---|------|
| m-phenylenebis(methylamine) | CAS No.: 1477-55-0 EC No.: 216-032-5 UK-REACH: Index No.: | 15-25% | 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 | |
| 2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine | CAS No.: 25513-64-8 EC No.: 247-063-2 UK-REACH: Index No.: | 15-25% | Acute Tox. 4, H302 Skin Corr. 1A, H314 Skin Sens. 1A, H317 Eye Dam. 1, H318 | |
| Phenol, styrenated | CAS No.: 61788-44-1 EC No.: 262-975-0 UK-REACH: Index No.: | 5-10% | Skin Irrit. 2, H315 Skin Sens. 1A, H317 Eye Irrit. 2, H319 | [19] |

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

Other information

[5] Substance is included in the Candidate List of substances of very high concern (SVHC).

[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

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 medic

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_x)

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

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.

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

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

4-tert-butylphenol

| Duration: | Route of exposure: | DNEL: |
|--|--------------------|-----------------------|
| Long term – Systemic effects - Workers | Dermal | 71 µg/kg bw/day |
| Long term – Systemic effects - Workers | Inhalation | 500 µg/m ³ |

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 ³ |
| Long term – Systemic effects - Workers | Inhalation | 1.2 mg/m ³ |

Phenol, styrenated

| Duration: | Route of exposure: | DNEL: |
|--|--------------------|-----------------------|
| Long term – Systemic effects - Workers | Dermal | 2.1 mg/kg bw/day |
| Long term – Systemic effects - Workers | Inhalation | 7.4 mg/m ³ |

PNEC

2,2,4(or 2,4,4)-trimethylhexane-1,6-diamine

| Route of exposure: | Duration of Exposure: | PNEC: |
|-----------------------------------|-----------------------|-----------|
| Freshwater | | 102 µg/L |
| Freshwater sediment | | 622 µg/kg |
| Intermittent release (freshwater) | | 315 µg/L |
| Marine water | | 10.2 µg/L |
| Marine water sediment | | 62 µg/kg |
| Sewage treatment plant | | 72 mg/L |
| Soil | | 10 mg/kg |

4-tert-butylphenol

| Route of exposure: | Duration of Exposure: | PNEC: |
|-----------------------------------|-----------------------|-------------|
| Freshwater | | 10 µg/L |
| Freshwater sediment | | 270 µg/kg |
| Intermittent release (freshwater) | | 48 µg/L |
| Marine water | | 1 µg/L |
| Marine water sediment | | 27 µg/kg |
| Predators | | 46.67 mg/kg |
| Sewage treatment plant | | 1.5 mg/L |
| Soil | | 250 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 |
| Phenol, styrenated | | |
| Route of exposure: | Duration of Exposure: | PNEC: |
| Freshwater | | 4 µg/L |
| Freshwater sediment | | 248 µg/kg |
| Intermittent release (freshwater) | | 46 µg/L |
| Intermittent release (marine water) | | 4.6 µg/L |
| Marine water | | 400 ng/L |
| Marine water sediment | | 24.8 µg/kg |
| Sewage treatment plant | | 36.2 mg/L |
| Soil | | 47.3 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

Yellowish, Transparent

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/cm³)

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.

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 fertility or 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. This product contains reprotoxic substances, which may harm the reproductive capacity. Adverse effects include: sterility, effects on the sexual function, lowered effective fertility and dysfunctional menstrual cycle.

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

4-tert-butylphenol is identified as endocrine disruptor on ECHA's endocrine disruptor (ED) assessment list.

Other information

None known.

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

4-tert-butylphenol is identified as endocrine disruptor on ECHA's endocrine disruptor (ED) assessment list.

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

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

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

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

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.

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

H302, Corrosive to the respiratory tract.

H302, Harmful if swallowed.

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.

H332, Harmful if inhaled.

H361, Suspected of damaging fertility or the unborn child.

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

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