

REDROCK LTD. **Material Safety Data Sheet** according to applicable EC directive

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product information

Trade name : Redflow EAG (base resin)

Red Rock (2004) Ltd.

P.O.Box 12091

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Bisphenol A/F epoxy resin containing reactive diluent preparation

Hazardous components

Chemical Name	CAS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
butanedioldiglycidyl ether EC-No.: 219-371-7	2425-79-8	Xn	R20/21 R36/38 R43 R52/53	50-70
reaction product: bisphenol A- (epichlorhydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	Xi, N	R36/38 R43 R51/53	15-25
Bisphenol F epoxy resin	9003-36-5	Xi,N	R36/38, R43, R51/53	15-25

3. HAZARDS IDENTIFICATION

Harmful by inhalation and in contact with skin.

Irritating to eyes and skin.

May cause sensitization by skin contact.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

- Inhalation : Move to fresh air.
Oxygen or artificial respiration if needed.
Call a physician immediately.
- Eye contact : Rinse immediately with plenty of water for at least 15 minutes.
Call a physician immediately.
- Skin contact : Wash off with soap and plenty of water.
If skin irritation persists, call a physician.
- Ingestion : Immediately give plenty of water (if possible charcoal slurry).
If a person vomits when lying on his back, place him in the
recovery position.
Oxygen or artificial respiration if needed.
Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray.
Carbon dioxide (CO2).
Foam.
Dry powder.
- Extinguishing media which must not be used for safety reasons : High volume water jet.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Burning produces obnoxious and toxic fumes.
Carbon oxides.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Keep away from sources of ignition - No smoking.
Avoid contact with skin, eyes and clothing.
Do not breathe vapours/dust.
- Environmental precautions : Prevent product from entering drains.
Do not contaminate surface water.
Avoid subsoil penetration.
- Methods for cleaning up : Soak up with inert absorbent material and dispose of as hazardous waste.

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Avoid formation of aerosol.
Ensure adequate ventilation.
Handle and open container with care.

Storage

- Further information on storage conditions : Keep away from food, drink and animal feeding stuffs.
Keep container tightly closed.
Store at room temperature in the original container.

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
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Personal protective equipment

- Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.
- Eye protection : Tightly fitting safety goggles.
Face-shield.
- Hand protection : rubber or plastic gloves
- Skin and body protection : Protective suit.
Safety shoes.
- Protective measures : Keep away from sources of ignition - No smoking.
Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : liquid
- Colour : light yellow
clear
- Odour : mild
- pH : approx.6
at (20 °C)
1:1 in water
- Boiling point : > 200 °C
- Thermal decomposition : > 200 °C
- Flash point : >130 °C
Method: DIN 51758 (Pensky-Martens Closed Cup)
- Vapour pressure : 0.3 Pa
at 20 °C
- Density : 1.1 - 1.15 g/cm³
at 25 °C
- Water solubility : at 20 °C
Note: practically insoluble
- Miscibility with water : immiscible

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Viscosity, dynamic : 200-1000 mPa.s
at 25 °C

10. STABILITY AND REACTIVITY

Conditions to avoid : Note: Take necessary action to avoid static electricity discharge.

Materials to avoid : Strong acids and strong bases.
Strong oxidizing agents.

Hazardous decomposition products : Carbon oxides. Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: > 5,000 mg/kg

Eye irritation : irritating
rabbit

Skin irritation : irritating
rabbit
dermal

Sensitization : Causes sensitization.
guinea pig
dermal

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Further information on ecology

Additional ecological information : Avoid subsoil penetration.
Prevent product from entering drains.
Do not contaminate surface water.

13. DISPOSAL CONSIDERATIONS

Product : Waste Key Number: 070208
Must be incinerated, when in compliance with local regulations.

Container : Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. TRANSPORT INFORMATION

Land transport

ADR:

UN-No: 3082
Class: 9
Classification code: M6
Packaging group: III
Risk No.: 90
ADR/RID-Labels: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
contains: BISPHENOL A/F EPOXY RESIN

RID:

UN-No: 3082
Class: 9
Packaging group: III
Risk No.: 90
ADR/RID-Labels: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
contains: BISPHENOL A/F EPOXY RESIN

Sea transport

IMDG:

UN-No: 3082
Class: 9
Packaging group: III
ADR/RID-Labels: 9
MFAG:
EmS: F-A S-F
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
contains: (BISPHENOL A/F EPOXY RESIN)

Air transport

IATA-DGR:

UN/ID No.: UN 3082
Class: 9
Packaging group: III
Packing instruction (cargo
aircraft): 914
Max. Qty/Pack.: 999.00 L
(999.00 = No limit)
Packing instruction
(passenger aircraft): 914

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Max. Qty/Pack.: 999.00 L
(999.00 = No limit)
ADR/RID-Labels: 9
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
contains: (BISPHENOL A/F EPOXY RESIN)

15. REGULATORY INFORMATION

Labelling according to EEC Directive

Labelling required

Symbol(s):	: Xn N	Harmful Dangerous for the environment
R-phrase(s)	: R20/21 R36/38 R43 R51/53	Harmful by inhalation and in contact with skin. Irritating to eyes and skin. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S26 S28 S37/39 S61	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Wear suitable gloves and eye/face protection. Avoid release to the environment. Refer to special instructions/Safety data sheets.
Exceptional labelling of special preparations	: Contains epoxy constituents. See information supplied by the manufacturer.	
Hazardous components which must be listed on the label	: butanedioldiglycidyl ether EC-No.: 219-371-7 reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	

National legislation

Notification status

16. OTHER INFORMATION

List of R-phrases (Section 2)

R20/21	Harmful by inhalation and in contact with skin.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974. Users of this product should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications. No statements shall be incorporated in any contract unless expressly agreed in writing nor construed as recommending the use of any product in conflict of any patent.

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