

# Material Safety Data Sheet

## 1 Identification of substance

Product name: Merlin Flexible Membrane

Manufacturer: Merlin Coatings Limited  
Unit 7, Kirkhall Workshops  
Bilbao Street  
Bolton  
Lancashire  
United Kingdom  
B11 6 ANe

Telephone 0044 1204 848557

## 2 Composition/Information on components

Chemical type: Formulated Epoxy Compound Curing Agent

Dangerous Components

CAS: 25154-52-3	4-nonyl phenol	R 22-34-50/53	20-28%
CAS: 25620-58-0	trimethylhexamethylenediamine	R 22-34-43-52-53	4-10%
CAS: 61788-46-3	amines,coco alkyl	R 22-35-50	4-10%
CAS: 90-72-2	2,4,6-tris(dimethylaminomethyl)phenol	R 22-36/38	1-7%

## 3 Hazards Identified

C	Corrosive
N	Dangerous for the environment
R20/22	Harmful by inhalation and if swallowed.
R34	Causes burns.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long term effects in the aquatic environment.

## 4 First Aid Measures

Soiled clothing: Remove all soiled clothing immediately.

Skin contact: Wash with soap and water. If skin irritation continues consult doctor.

Eye contact: Rinse with flowing water for several minutes, and call for doctor.

Swallowing: Drink plenty of water. Instantly call for doctor.

Inhalation: Remove to open air. Seek medical treatment in case of complaints.

## 5 Fire fighting

Suitable extinguishing agents:  
CO<sub>2</sub>, powder or water jet. Large fires use alcohol resistant foam.  
For safety reasons do not use water with full jet.  
Special hazards caused by the material, its products of combustion or resulting gasses;  
Formation of toxic gasses is possible during heating or combustion.  
Protective equipment: Wear self contained breathing apparatus and protective suit.

## 6 Accidental releases

Personal precautions:	Avoid contact with skin, eyes and clothing. Keep away from sources of ignition, do not smoke.
Environmental precautions:	Prevent material entering drains. Do not contaminate surface water.
Methods for cleaning up:	Soak up with inert absorbent material and dispose of as hazardous waste. Ensure adequate ventilation.
Additional information:	Clean the spill area carefully.

## 7 Handling and storage

Information on safe handling:	Avoid formation of an aerosol. Keep containers sealed, handle open containers with care. Ensure good ventilation in work area.
Storage:	Keep containers sealed, store away from food stuffs and animal feeds.
Storage temperature:	2 - 40 Celsius.

## 8 Exposure controls and personal protection

Special engineering measures:	No further data.
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### Personal protective equipment.

General protective and hygiene measures:	Keep away from foodstuffs, beverages and food. Remove contaminated clothing immediately. Wash hands during breaks and at the end of work. Avoid contact with skin and eyes.
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Breathing equipment: In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

Breathing device:	Short term filter device
Recommended filter device:	Filter AX

Protection of hands:	Plastic gloves.
Type:	Chemical protective category III
Material type:	Nitrile rubber, Fluorocarbon rubber.
For contact of less than 15 minutes:	PVC gloves.
For splashes:	PVC gloves.
Not suitable:	Leather or general purpose.

Eye protection: Tightly sealed safety glasses.

Body protection: Protective overalls.  
Safety shoes.

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## 9 Physical and chemical properties

General information:	
Form:	Liquid
Colour:	Straw-amber
Smell:	Amine
Change in condition:	
Melting point:	not determined.
Boiling point:	>100 Celsius.
Flash point:	112 Celsius
Ignition temperature	Above flash point
Self inflammability:	Product is not self igniting.
Danger of explosion:	Product is not explosive.
Density:	0.97 @ 20 Celsius
Solubility/ miscibility in water:	Not miscible or difficult to mix.
Viscosity:	1,100-1,900 mPas @ 25 Celsius.

## 10 Stability and reactivity

Thermal decomposition/ conditions to be avoided: No decomposition if used correctly.

Materials to be avoided: Strong oxidising agents.

Dangerous reactions: None known.

Dangerous products of decomposition:  
In the event of fire: None if stored or handled correctly.  
Toxic gasses and vapours.

## 11 Toxicological information

Acute oral toxicity: 400-1000 mg/kg (rat)  
Calculated

Eye irritation Corrosive (rabbit)

Skin irritation Corrosive (rabbit, dermal)

Sensitisation Causes sensitisation. (guinea pig, dermal)

Additional toxicological information:

The product shows the following dangers according to the calculation method of the general EC classification guidelines for preparations as issued in the latest version:

Harmful.

Corrosive

Irritant

Swallowing will lead to strong caustic effect on mouth and throat and to the perforation of oesophagus and stomach.

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## 12 Ecological information

Ecotoxicity effects  
Further information on ecology: Avoid sub soil penetration.  
Prevent product from entering drains.  
Do not contaminate surface water.

### 13 Disposal considerations

Recommendation:  
For local disposal, local regulations issued by the authorities must be observed. Dispose of liquid components at suitable incineration plant. After curing, the product can be disposed of as general waste.

Product Waste Key number 070208

Empty container can be land filled after cleaning.  
Unclean packaging: Recommendation, disposal must be made according to official regulations.

### 14 Transport information

Land transport ADR/RID (cross border):  
ADR/RID-GGVS/E Class 8 Corrosive substances.  
UN Number: 2735  
Item: 53Cc  
Risk No: 80  
Label: 8  
Designation of goods: amines, liquid, corrosive, N.O.S.  
Trimethylhexamethylenediamines,  
4-nonyl phenol

Maritime transport IMDG:  
IMDG class: 8  
UN Number: 2735  
Label: 8  
Packing group: 111  
MFAG: 320  
EmS 8.05  
Correct technical name: amines, liquid, corrosive, N.O.S.  
(Trimethylhexamethylenediamines,  
4-nonyl phenol)

Air transport ICAO-TI and IATA-DGR:  
ICAO/IATA Class: 8  
UN/ID Number: 2735  
Label: 8  
Packing instructions: 820  
(Cargo aircraft)  
Correct technical name: amines, liquid, corrosive, N.O.S.  
(Trimethylhexamethylenediamines,  
4-nonyl phenol)

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### 15 Regulatory information

Designation according to EC guidelines: The product has been classified and labelled in accordance with EC Directives/Ordinance on hazardous materials.

Code letter and hazard designation for the product: C Corrosive  
N Dangerous for the environment

Hazardous components which must be listed on label: 4-nonyl phenol  
trimethylhexamethylenediamine

Risk phrases:

- 22 Harmful if swallowed.
- 34 Causes burns.
- 43 May cause sensitisation by skin contact.
- 50/53 very toxic to aquatic organisms, may cause long term adverse effects on the aquatic environment.

Safety phrases:

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show this label where possible)
- 61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

## 16 Other information

These data shall not constitute a guarantee for any specific product features and shall not establish a legally valid contract or relationship.

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