

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31 Revision: 21.1.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking· **1.1 Product identifier**· Trade name: **Merlin Barrier Coat Base**· **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.· **Application of the substance / the mixture** Epoxy Damp Proof Membrane Base· **1.3 Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

Merlin Coatings Limited

Unit 7 Kirkhall Workshops

Bilbao Street, Bolton, UK

Tel.: +44-1204-940004, Email: info@merlin-coatings.com

· **Informing department:** see section 16.· **1.4 Emergency telephone number:**

Emergency Call: +44 (0) 7799881298

GB: Regional Medicines and Poisons Information Centre 844 892 0111

SECTION 2: Hazards identification· **2.1 Classification of the substance or mixture**· **Classification according to Regulation (EC) No 1272/2008**

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

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

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

· **2.2 Label elements**· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**

GHS07 GHS09

· **Signal word** Warning**Hazard-determining components of labelling:** 2,2'-[(1-

methylethyliden) bis(4,1-phenylenoxymethylen)]bisoxirane

Bisphenol F- Epoxyresin

oxirane, mono[(C12-14-alkyloxy)methyl] derivs

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

GB

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31 Revision: 21.1.2022

Trade name: Merlin Barrier Coat Base

(Contd. of page 1)

P333+P313
P501

If skin irritation or rash occurs: Get medical advice/attention.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**

- EUH205 Contains epoxy constituents. May produce an allergic reaction.

- **2.3 Other hazards**

- **Results of PBT and vPvB assessment.**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**

- **Description:** Epoxy resin formulation with a bisphenol-A liquid resin base

- **Dangerous components:**

CAS: 1675-54-3 EINECS: 216-823-5 Index number: 603-073-00-2 Reg.nr.: 01-2119456619-26-xxxx	2,2'-[(1-methylethyliden)bis(4,1-phenylenoxymethylen)] bisoxirane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	35-60%
EC number: 701-263-0 Reg.nr.: 01-2119454392-40-xxxx	Bisphenol F- Epoxy resin Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	20-35%
CAS: 68609-97-2 EINECS: 271-846-8 Index number: 603-103-00-4 Reg.nr.: 01-2119485289-22-xxxx	oxirane, mono[(C12-14-alkyloxy)methyl] derivs Skin Irrit. 2, H315; Skin Sens. 1, H317	10-20%

- **Additional information** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information** Instantly remove any clothing soiled by the product.

- **After inhalation**

Take affected persons into the open air and position comfortably Seek medical treatment in case of complaints.

- **After skin contact**

Instantly wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

- **After swallowing** Seek immediate medical advice.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

- **Information for doctor** No particular measures are known - treat according to symptoms.

- **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**

- **Suitable extinguishing agents**

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

- **For safety reasons unsuitable extinguishing agents** Water with a full water jet.

- **5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

(Contd. on page 3)

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31 Revision: 21.1.2022

Trade name: Merlin Barrier Coat Base

(Contd. of page 2)

- **5.3 Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus.
- **Additional information**
Dispose of fire debris and contaminated firefighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter the ground/soil.
Inform respective authorities in case product reaches water or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections** Clean the accident area carefully.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
The usual precautionary measures for handling chemicals must be observed. Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities.**
- **Storage**
- **Requirements to be met by storerooms and containers:** Store only in unopened original containers.
Keep containers securely closed and dry, store frost-free. Provide floor trough without outlet.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **DNELs****1675-54-3 2,2'-[(1-methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxirane**

Dermal	DNEL - worker	8.33 mg/kg / bw/d
Inhalative	DNEL - worker	12.25 mg/m ³

Bisphenol F-Epoxyresin

Dermal	DNEL - worker	104.15 mg/kg / bw/d
Inhalative	DNEL - worker	29.39 mg/m ³

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl]derivs

Dermal	DNEL - worker	1 mg/kg / bw/d
Inhalative	DNEL - worker	3.6 mg/m ³

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 21.1.2022

Revision: 21.1.2022

Trade name: **Merlin Barrier Coat Base**

(Contd. of page 3)

· PNECs	
1675-54-3 2,2'-[(1-methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxirane	
PNEC (predicted no effect concentration)	0.006 mg/l freshwater 0.0006 mg/l seawater
Bisphenol F- Epoxyresin	
PNEC (predicted no effect concentration)	0.003 mg/l freshwater. 0.0003 mg/l seawater
68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs	
PNEC (predicted no effect concentration)	0.0072 mg/l freshwater. 0.00072 mg/l seawater

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures** Keep away from foodstuffs, beverages and food. Take off immediately all contaminated clothing Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin.

· **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.

· **Recommended filter device for short term use:**



Combination filter A-P2

· **Protection of hands:**



Plastic gloves

Only use chemical-protective gloves with CE-labelling of category III.

To minimise the wetness in the glove due to perspiration changing of gloves during a shift is required.

Check the permeability prior to each a new use of the glove.

Preventive skin protection by use of skin-protecting agents is recommended.

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves** Nitrile

rubber, NBR Fluorocarbon

rubber (Viton)

Recommended thickness of the material: 0.5 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time must be found out by the manufacturer of the protective gloves and has to be observed.

(Contd. on page 5)

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31

Revision: 21.1.2022

Trade name: Merlin Barrier Coat Base

(Contd. of page 4)

- **As protection from splashes gloves made of the following materials are suitable:** PVC gloves
- **Not suitable are gloves made of the following materials:** Leather gloves.
Strong gloves
- **Eye protection:**
Safety glasses
Safety glasses recommended during refilling.
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Liquid
· Colour:	Yellowish
· Odour:	Characteristic

· **Change in condition**

· Melting point/freezing point:	Not determined
· Initial boiling point and boiling range:	> 200 °C

· Flash point:	> 100 °C
-----------------------	----------

· Self-in flammability:	Product is not self-igniting.
--------------------------------	-------------------------------

· Explosive properties:	Product is not explosive.
--------------------------------	---------------------------

· Density at 23 °C	1.12 g/cm ³ (ISO 2811-2)
---------------------------	-------------------------------------

· **Solubility in / Miscibility with**

· Water:	Not miscible or difficult to mix
-----------------	----------------------------------

· **Viscosity:**

· dynamic at 25 °C:	700 mPas (ISO 3219)
· kinematic:	Not determined.

· 9.2 Other information	No further relevant information available.
--------------------------------	--

SECTION 10: Stability and reactivity· **10.1 Reactivity** No further relevant information available.· **10.2 Chemical stability**· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

· **10.3 Possibility of hazardous reactions** No dangerous reactions known· **10.4 Conditions to avoid** No further relevant information available.· **10.5 Incompatible materials:** strong oxidizing agents· **10.6 Hazardous decomposition products:**

none, if stored and handled correctly.

in the event of fire:

toxic gases and vapours

SECTION 11: Toxicological information· **11.1 Information on toxicological effects**· **Acute toxicity** Based on available data; the classification criteria are not met.

(Contd. on page 6)

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31

Revision: 21.1.2022

Trade name: **Merlin Barrier Coat Base**

(Contd. of page 5)

· **LD/LC50 values that are relevant for classification:****1675-54-3 2,2'-[(1-methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxirane**

Oral	LD50	15,000 mg/kg (rat)
Dermal	LD50	23,000 mg/kg (rabbit)

Bisphenol F- Epoxyresin

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

68609-97-2 oxirane, mono[(C12-14-alkyloxy)methyl] derivs

Oral	LD50	>5,000 mg/kg (rat)
Dermal	LD50	>4,500 mg/kg (rabbit)

· **Primary irritant effect:**· **Skin corrosion/irritation**

Causes skin irritation.

· **Serious eye damage/irritation**

Causes serious eye irritation.

· **Respiratory or skin sensitisation**

May cause an allergic skin reaction.

· **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**· **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** Based on available data; the classification criteria are not met.**SECTION 12: Ecological information**· **12.1 Toxicity**· **Aquatic toxicity:****1675-54-3 2,2'-[(1-methylethyliden)bis(4,1-phenylenoxymethylen)]bisoxirane**

Bacteria toxicity	100 mg/l (<i>Pseudomonas putida</i>)
Daphnia toxicity	1.8 mg/l (<i>Daphnia magna</i> (EC50(48h)))
Algae toxicity	11 mg/l (<i>Scenedesmus capricornutum</i> (EC50(72h)))
Fish toxicity	2 mg/l (<i>Oncorhynchus mykiss</i>) (LC50(96h))

Bisphenol F- Epoxyresin

Daphnia toxicity	2.55 mg/l (<i>Daphnia magna</i>) (LC50(48h))
Algae toxicity	1.8 mg/l (<i>Scenedesmus capricornutum</i>) (LC50(72))
Fish toxicity	2.54 mg/l (<i>Leuciscus idus</i>) (EC50(96h))

68609-97-2 oxirane, mono[(C12-14- alkyloxy)methyl] derivs

Bacteria toxicity	>100 mg/l (activated sludge)) (EC50)
Daphnia toxicity	7.2 mg/l (<i>Daphnia magna</i> (EC50(48h)))
Algae toxicity	844 mg/l (EC50(72h))
Fish toxicity	>5,000 mg/l (<i>Oncorhynchus mykiss</i>) (LC50(96h))

· **12.2 Persistence and degradability** No further relevant information available.· **Other information:** The product is slightly biodegradable.· **12.3 Bio accumulative potential** No further relevant information available.· **12.4 Mobility in soil** No further relevant information available.· **Ecotoxic effects:** Not determined.· **Remark:** Toxic for fish

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 21.1.2022

Revision: 21.1.2022

Trade name: **Merlin Barrier Coat Base**

(Contd. of page 6)

- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water. Do not allow product to reach ground water, water bodies or sewage system. Danger to drinking water if even small quantities leak into soil. Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations



- **13.1 Waste treatment methods**
- **Recommendation**
For disposal, local regulations issued by the authorities must be observed. Dispose of liquid components at a suitable incineration plant. After curing, the product can be disposed of with household waste.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 02 00	wastes from MFSU of other coatings (including ceramic materials)
08 02 99	wastes not otherwise specified.

- **Uncleaned packaging's:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR/RID/ADN, IMDG, IATA** UN3082
- **14.2 UN proper shipping name**
- **ADR/RID/ADN** 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
- **14.3 Transport hazard class(es)**
- **ADR/RID/ADN**
- 

- **Class** 9 (M6) Miscellaneous dangerous substances and articles.

(Contd. on page 8)

GB


Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 21.1.2022

Revision: 21.1.2022

Trade name: Merlin Barrier Coat Base

(Contd. of page 7)

· Label	9
· IMDG, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	III
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: epoxy resin, Bisphenol F- Epoxy resin
· Marine pollutant:	Yes
	Symbol (fish and tree)
· Special marking (ADR/RID/ADN):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Kemler Number:	90
· EMS Number:	F-A,S-F
· Stowage Category	A
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Excepted quantities (EQ):	E1
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	-
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN), 9, III

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E2** Hazardous to the Aquatic Environment

(Contd. on page 9)

GB

Safety data sheet

Printing date 21.1.2022

according to 1907/2006/EC, Article 31 Revision: 21.1.2022

Trade name: Merlin Barrier Coat Base

(Contd. of page 8)

- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 200 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations**

VOC	- EU (Decopaint-Directive 2004/42/EC)
5.6	g/l

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Changes made since last issue dated 06.05.2020 at the following points: *

- **Relevant phrases**
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
- **Department issuing data specification sheet:** Merlin Coatings Limited
Unit 7 Kirkhall Workshops, Bilbao Street
Bolton BL14HH United Kingdom
- **Contact** info@merlin-coatings.com
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- *** Data compared to the previous version altered.**

GB