

1. Substance/preparation and manufacturer/supplier identification

DRI-FLOOR EP 1550 – PART A

Use: Product for construction chemicals

Manufacturer/supplier:

DRITECH CHEMICALS SDN. BHD.
A-13-02, ATRIA SOFO SUITE, JALAN SS
22/23, DAMANSARA JAYA, 47400, PETALING
JAYA, SELANGOR, MALAYSIA.
Telephone: +60 3 7499 2178
Telefax number: +60 3 8727 1786

Emergency information:

Emergency Advice Number: +60 3 7499 2178

2. Hazard identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

Other EU extensions	EUH205
Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317
Eye Irritation, category 2	H319
Hazardous to the aquatic environment, Chronic, category 2	H411

2.2 Label elements

Symbol(s) of Product



Signal Word

Warning

Named Chemicals on Label

Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol, 1,6- Hexanediol diglycidyl ether, Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700), Oxirane, mono [(C12-14-alkyloxy)methyl] derivs.

HAZARD STATEMENTS

Other EU extensions	EUH205	Contains epoxy constituents. May produce an allergic reaction.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction. Eye
Irritation, category 2	H319	Causes serious eye irritation.
Hazardous to the aquatic environment, Chronic, category 2	H411	Toxic to aquatic life with long lasting effects.

PRECAUTION PHRASES

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/ face protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

3. Composition/information on ingredients

3.2 Mixtures

Hazardous Ingredients

CAS-No.	EINEC No.	Name According to EEC	%	
25068-38-6	500-033-5	Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average 75-100 molecular weight <= 700) Oxirane, mono[(C12-14-alkyloxy)methyl]		
68609-97-2		271-846-8 2.5-10 derivs.		
16096-31-4	240-260-4	1,6-Hexanediol diglycidyl ether	2.5-10	
14807-96-6	238-877-9	Talc	2.5-10	
9003-36-5	500-006-8	Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol	0.1-1.0	
CAS-No.	REACH Reg No.	CLP Symbols	CLP Hazard Statements	M-Factors
25068-38-6	01-2119456619-26	GHS07-GHS09	H315-317-319-411	
68609-97-2	01-2119485289-22	GHS07	H315-317	
16096-31-4	01-2119463471-41	GHS07	H315-317-319-412	
14807-96-6	N/A			
9003-36-5	01-2119454392-40	GHS07-GHS09	H315-317-411	

4. First-Aid Measures

General advice:

First aid personnel should pay attention to their own safety. Immediately remove contaminated clothing.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:

After contact with skin, wash immediately with plenty of water and soap. Under no circumstances should organic solvent be used. If irritation develops, seek medical attention.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Rinse mouth immediately and then drink plenty of water, seek medical attention. Do not induce vomiting unless told to by a poison control center or doctor.

Note to physician:

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

foam, water spray, dry powder, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Specific hazards:

carbon dioxide, carbon monoxide, harmful vapours, nitrogen oxides, fumes/smoke, carbon black

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. If exposed to fire, keep containers cool by spraying with water. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:

Do not breathe vapour/aerosol/spray mists. Wear eye/face protection. If exposed to high vapour concentration, leave area immediately. Use personal protective clothing. Handle in accordance with good building materials hygiene and safety practice.

Environmental precautions:

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For small amounts: Pick up with inert absorbent material (e.g. sand, earth etc.). Dispose of contaminated material as prescribed. For large amounts: Pump off product.

7. Handling and Storage

Handling

Avoid aerosol formation. Avoid inhalation of mists/vapours. Avoid skin contact. No special measures necessary provided product is used correctly.

Storage

Further information on storage conditions: Keep only in the original container in a cool, dry, wellventilated place away from ignition sources, heat or flame. Protect from direct sunlight.

Protect from temperatures below: 5 °C The packed product must be protected from temperatures below the indicated one. Protect from temperatures above: 30 °C With longer exceeding of the indicated temperature packagings may be damaged.

8. Exposure controls and personal protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

Name	CAS-No.	LTEL ppm	STEL ppm	STEL mg/m3
	LTEL mg/m3			
Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	25068-38-6			
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2			
1,6-Hexanediol diglycidyl ether	16096-31-4			
Talc	14807-96-6			
Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol	9003-36-5			
Name	CAS-No.	OEL Note		
Reaction product: bisphenol-A-epoxy resin (number average molecular weight <= 700)	25068-38-6	(epichlorhydrin)		
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	68609-97-2			
1,6-Hexanediol diglycidyl ether	16096-31-4			
Talc	14807-96-6			
Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol	9003-36-5			

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8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: No personal respiratory protective equipment normally required. **EYE PROTECTION:** Eye wash bottle with pure water. Safety goggles. Safety glasses with side- shields conforming to EN166.

HAND PROTECTION: Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use.

Remove contaminated clothing and protective equipment before entering eating areas.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

EC No.:

CAS-No.:

500-033-5

25068-38-6

DNELs - Derived no effect level

Workers

Consumers

Route of Exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
	Oral			Not required			0.75 mg/kg	
Inhalation		12.25 mg/m ³		12.25 mg/m ³				
Dermal		8.33 mg/kg		8.33 mg/kg		3.571 mg/kg		3.571 mg/kg

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC Fresh
water	0.006 mg/l Fresh
water sediments	0.996 mg/l Marine
water sediments	0.0006 mg/l Marine
Food chain	0.0996 mg/l
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	0.196 mg/kg
Air	

Chemical Name:

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

EC No.:

CAS-No.:

271-846-8

68609-97-2

DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					1219 mg/kg bw/d		1 mg/kg bw/d
Inhalation	9.8 mg/m ³	29 mg/m ³	0.98 mg/m ³	13.8 mg/m ³	2.9 mg/m ³	7.6 mg/m ³	1.46 mg/m ³	4.1 mg/m ³
Dermal	68 mg/cm ²	17 mg/kg bw/d	1.7 mg/cm ²	3.9 mg/kg bw/d	40 mg/cm ²	10 mg/kg bw/d	1 mg/cm ²	2.35 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.0072 mg/l Fresh
water sediments	66.77 mg/kg Marine
water	0.00072 mg/l Marine
sediments	6.677 mg/kg
Food chain	
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	80.12 mg/kg
Air	

Chemical Name:

1,6-Hexanediol diglycidyl ether

EC No.:

240-260-4

CAS-No.:

16096-31-4 DNELs - Derived no effect level

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required					0.83 mg/kg bw/d		0.83 mg/kg bw/d
Inhalation			0.44 mg/m ³	4.9 mg/m ³		2.9 mg/m ³	0.27 mg/m ³	2.9 mg/m ³
Dermal			22.6 µg/cm ²	2.8 mg/kg bw/d	13.6 µg/cm ²	1.7 mg/kg bw/d	13.6 µg/cm ²	1.7 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC
Fresh water	0.0115 mg/l
Fresh water sediments	0.283 mg/kg
Marine water	1.15 µg/l
Marine sediments	0.283 mg/kg
Food chain	
Microorganisms in sewage treatment	
soil (agricultural)	

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Air

Chemical Name:

Formaldehyde, oligomeric reaction product with 1-chloro-2,3-epoxypropane and phenol

EC No.:

CAS-No.:

500-006-8

9003-36-5

DNELs - Derived no effect level

Route of	Workers				Consumers			
	Acute effect	Acute effects	Chronic	Chronic effects	Acute effect	Acute effects	Chronic	Chronic effects
Exposure	local	systemic	effects local	systemic	local	systemic	effects local	systemic
Oral	Not required							6.25 mg/kg bw/d
Inhalation				29.3 mg/m ³				8.7 mg/m ³
Dermal				104.1 mg/kg bw/d				62.5 mg/kg bw/d

PNEC's - Predicted no effect concentration

Environmental protection target	PNEC Fresh
water	0.003 mg/l Fresh water
sediments	0.294 mg/kg Marine water
0.0003 mg/l Marine sediments	
0.0294 mg/kg	
Food chain	
Microorganisms in sewage treatment	10 mg/l
soil (agricultural)	0.237 mg/kg
Air	

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Pigmented
Physical State	Liquid
Odor	Slight
Odor threshold	Not determined
pH	Not determined
Melting point / freezing point (°C)	Not determined
Boiling point/range (°C)	145 - N.D. Flash
Point, (°C)	<200
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	0.7 - 10.8

Vapour Pressure	Not determined
Vapour density	Not determined
Relative density	ca. 1.19
Solubility in / Miscibility with water	Insoluble
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	Not determined
Explosive properties	Not determined
Oxidising properties	Not Applicable
9.2 Other information	
VOC Content g/l:	<10

10. Stability and Reactivity

Conditions to avoid:
See MSDS section 7 - Handling and storage.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Substances to avoid:
strong acids, strong bases, strong oxidizing agents, strong reducing agents

Corrosion to metals: Corrosive effects to metal are not anticipated.

Hazardous reactions:
The product is stable if stored and handled as prescribed/indicated.

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

11.1 Information on toxicological effects Acute Toxicity:

Oral LD50:	No Information
Inhalation LC50:	No Information

Irritation: Irritating to eyes and skin.

Corrosivity: No information available.

Sensitization: Prolonged or repeated skin contact may result in allergic eczema.

Repeated dose toxicity: No information available.

Carcinogenicity: No information available.

Mutagenicity: No information available.

Toxicity for reproduction: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No. LC50	Name According to EEC	Oral LD50	Dermal LD50	Vapor
	Reaction product: bisphenol-A-		2001 mg/kg (rat) OECD	
25068-38-6	(epichlorhydrin) epoxy resin (number average	>5000 mg/kg (rat)		4
	02 molecular weight <= 700)			
68609-97-2	Oxirane, mono[(C12-14-alkyloxy)methyl]	26800 mg/kg (rat)		
	derivs.			
16096-31-4	1,6-Hexanediol diglycidyl ether	3010 mg/kg (rat)	>2000 mg/kg (rat)	
	Formaldehyde, oligomeric reaction product	>5000 mg/kg (rat)	>2000 mg/kg (rat)	
9003-36-5	with 1-chloro-2,3-epoxypropane and phenol	OECD 401	OECD 402	

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

Based on available Data, the classification criteria are not met. There is a high probability that the product is not acutely harmful to aquatic organisms.

Mobility

Assessment transport between environmental compartments:

No data available.

Bioaccumulation potential

Assessment bioaccumulation potential:
Discharge into the environment must be avoided.

Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control. The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal Considerations

Observe national and local legal requirements.
Residues should be disposed of in the same manner as the substance/product.

Contaminated packaging:
Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

14. Transport Information

14.1	UN number	UN3082
14.2	UN proper shipping name	Environmentally hazardous substance, liquid, N.O.S.
	Technical name	(Epoxy resin MW<700)
14.3	Transport hazard class(es)	9
	Subsidiary shipping hazard	Not applicable
14.4	Packing group	III
14.5	Environmental hazards	Marine Pollutant
14.6	Special precautions for user	Not applicable
	EmS-No.:	Not applicable
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

16. Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.