SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

Sikafloor®-156 (A)

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

1.1 Product identifier

Product name : Sikafloor®-156 (A)

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

At present there is no complete information available on identified uses. When the data becomes available, it will be integrated into the safety data sheet.

Product use : Epoxy coating.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Distributor	:	Sika Limited Watchmead Welwyn Garden City Hertfordshire. AL7 1BQ United Kingdom
Telephone no.	:	01707 394444
Fax no.	:	01707 329129
e-mail address of person responsible for this SDS	:	EHS@uk.sika.com
Emergency telephone number	:	+44 (0)1707 363899 (available during office hours).

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0)1707 363899 (available during office hours).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xi; R36/38
R43
N; R51/53

Human health hazards : Irritating to eyes and skin. May cause sensitisation by skin contact.

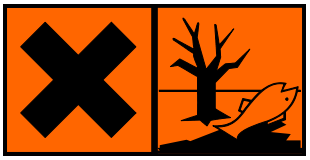
Environmental hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard symbol or symbols :



Indication of danger : Irritant, Dangerous for the environment

SECTION 2: Hazards identification

Risk phrases : R36/38- Irritating to eyes and skin.
R43- May cause sensitisation by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S24- Avoid contact with skin.
S37- Wear suitable gloves.

Hazardous ingredients : reaction product. bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)
reaction product. bisphenol F-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)
oxirane, mono[(C12-14-alkyloxy)methyl]derivs

Supplemental label elements : Contains epoxy constituents. See information supplied by the manufacturer.

2.3 Other hazards

Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Chemical family/ Characteristics : Modified epoxy resin

Product/ingredient name Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
reaction product. bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700) RRN: 01-2119456619-26 EC: 500-033-5 CAS: 25068-38-6 Index: 603-074-00-8	>= 50 - < 75	Xi; R36/38 R43 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
reaction product. bisphenol F-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) RRN: 01-2119454392-40 EC: 500-006-8 CAS: 9003-36-5	>= 5 - < 10	Xi; R36/38 R43 N; R51/53	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
oxirane, mono[(C12-14-alkyloxy)methyl]derivs RRN: 01-2119485289-22 EC: 271-846-8 CAS: 68609-97-2 Index: 603-103-00-4	>= 5 - < 10	Xi; R38 R43	Skin Irrit. 2, H315 Skin Sens. 1, H317	[1]
		See section 16 for the full text of the R-phrases declared above	**See Section 16 for the full text of the H statements declared above.**	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 3: Composition/information on ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Get medical attention if adverse health effects persist or are severe.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention if symptoms occur.

Ingestion : Do not induce vomiting unless directed to do so by medical personnel. Maintain an open airway. Seek immediate medical attention.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Irritating to eyes.

Inhalation : No known significant effects or critical hazards.

Skin contact : Irritating to skin. May cause sensitisation by skin contact.

Ingestion : Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

SECTION 5: Firefighting measures

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. 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 (see section 13).

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Avoid release to the environment. Refer to special instructions/safety data sheet. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

SECTION 7: Handling and storage

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Reference number EN 374. Suitable for short time use or protection against splashes: Butyl rubber/nitrile rubber gloves. (0,4 mm), breakthrough time <30 min. Contaminated gloves should be removed. Suitable for permanent exposure: Viton gloves (0.4 mm), breakthrough time >30 min.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Use barrier skin cream.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

Respiratory protection : No special measures required.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	:	Liquid.
Colour	:	Yellowish.
Odour	:	Faint odour.
Odour threshold	:	Not available.
pH	:	Not available.
Melting point/freezing point	:	Not available.
Initial boiling point and boiling range	:	Not available.
Flash point	:	Closed cup: >101°C
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not available.
Burning time	:	Not applicable.
Burning rate	:	Not applicable.
Upper/lower flammability or explosive limits	:	Not applicable.
Vapour pressure	:	Not applicable.
Vapour density	:	Not available.
Density	:	~1.1 g/cm^3 [20°C (68°F)]
Relative density	:	Not available.
Solubility(ies)	:	Insoluble in the following materials: water
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
Viscosity	:	Dynamic: 1600 mPa·s Kinematic (40°C): >0.205 cm^2/s
Explosive properties	:	Not available.
Oxidising properties	:	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : No specific data.

SECTION 10: Stability and reactivity

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
reaction product. bisphenol-A-(epichlorhydrin) and epoxy resin (number average molecular weight <= 700)	LD50 Dermal	Rabbit	>20000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Irritating to eyes.

Inhalation : May cause irritation.

Skin contact : Irritating to skin. May cause sensitisation by skin contact.

Ingestion : Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
irritation
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

SECTION 11: Toxicological information

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Yes.

European waste catalogue (EWC)

SECTION 13: Disposal considerations

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

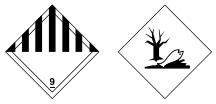
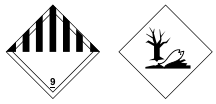
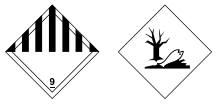
Packaging : Completely emptied packaging or practically empty packaging containing dried/cured residues, once relieved of all pressure can be disposed of as non-hazardous waste.

Packaging may still contain hazardous residues and disposal should undertaken by a licensed waste contractor.

Any disposal practice must be in compliance with local and national laws and regulations.

European waste catalogue (EWC) (Packaging) : packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

	ADR/RID - ADN/ADNR	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. Epoxide resin	Environmentally hazardous substance, liquid, n.o.s. Epoxide resin	Environmentally hazardous substance, liquid, n.o.s. Epoxide resin
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes	Yes	Yes
14.6 Special precautions for user	Not available.	Not available.	Not available.
Additional information	**Tunnel code** (E)	**Emergency schedules (EmS)** F-A, S-F	-
Classification code	M6		

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

VOC content (EU) : VOC (w/w): 0.01%

SECTION 15: Regulatory information

Other EU regulations

REACH Information: : All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Europe inventory : All components are listed or exempted.

References : Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4)
Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended)
Health & Safety at Work Act 1974
The Environmental Protection (Duty of Care) Regulations 1991

Hazardous waste regulations 2005
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007

Guidance Publications : Approved Code of Practice - Management of Health and Safety at Work, HSE
General Approved Code of Practice to COSHH Regulations, HSE.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Full text of abbreviated H statements :
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.

Full text of classifications [CLP/GHS] :

Aquatic Chronic 2, H411	AQUATIC TOXICITY (CHRONIC) - Category 2
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Irrit. 2, H315	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases : R38- Irritating to skin.
R36/38- Irritating to eyes and skin.
R43- May cause sensitisation by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of classifications [DSD/DPD] : Xi - Irritant
N - Dangerous for the environment

History

Date of printing : **24.05.2013.**

Date of issue : **24.05.2013.**

Date of previous issue : **31.03.2011.**

Notice to reader

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)

Sikafloor®-156 (B)

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

1.1 Product identifier

Product name : Sikafloor®-156 (B)

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

At present there is no complete information available on identified uses. When the data becomes available, it will be integrated into the safety data sheet.

Product use : Product is not intended for consumer use.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Distributor	:	Sika Limited Watchmead Welwyn Garden City Hertfordshire. AL7 1BQ United Kingdom
Telephone no.	:	01707 394444
Fax no.	:	01707 329129
e-mail address of person responsible for this SDS	:	EHS@uk.sika.com
Emergency telephone number	:	+44 (0)1707 363899 (available during office hours).

1.4 Emergency telephone number

Supplier

Telephone number : +44 (0)1707 363899 (available during office hours).

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Xn; R20/21/22
C; R34
R43
R52/53

Human health hazards : Harmful by inhalation, in contact with skin and if swallowed. Causes burns. May cause sensitisation by skin contact.

Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard symbol or symbols :

Indication of danger : Corrosive

SECTION 2: Hazards identification

Risk phrases : R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R34- Causes burns.
R43- May cause sensitisation by skin contact.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Hazardous ingredients : benzyl alcohol
3-aminomethyl-3,5,5-trimethylcyclohexylamine
m-phenylenebis(methylamine)
3,6,9-triazaundecamethylenediamine
2,4,6-tris(dimethylaminomethyl)phenol
2-Propenenitrile, reaction products with 2,2,4(or 2,4,4)-trimethyl-1,6-hexanediamine
Trimethylhexane-1,6-diamine

Supplemental label elements : Not applicable.

2.3 Other hazards

Other hazards which do not result in classification : Not available.

SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Chemical family/ Characteristics : Modified polyamine

Product/ingredient name Identifiers	%	Classification 67/548/EEC	Classification Regulation (EC) No. 1272/2008 [CLP]	Type
benzyl alcohol RRN: 01-2119492630-38 EC: 202-859-9 CAS: 100-51-6 Index: 603-057-00-5	>= 35 - < 50	Xn; R20/22	Acute Tox. 4, H302 Acute Tox. 4, H332 Eye Irrit. 2, H319	[1]
3-aminomethyl-3,5,5-trimethylcyclohexylamine RRN: 01-2119514687-32 EC: 220-666-8 CAS: 2855-13-2 Index: 612-067-00-9	>= 10 - < 20	Xn; R21/22 C; R34 R43 R52/53	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1C, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
m-phenylenebis(methylamine) RRN: 01-2119480150-50 EC: 216-032-5 CAS: 1477-55-0	>= 10 - < 20	Xn; R20/22 C; R34 R43 R52/53	Acute Tox. 4, H302 Acute Tox. 4, H332 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
3,6,9-triazaundecamethylenediamine RRN: 01-2119487290-37 EC: 203-986-2 CAS: 112-57-2 Index: 612-060-00-0	>= 7 - < 10	Xn; R21/22 C; R34 R43 N; R51/53	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 2, H411	[1]
2,4,6-tris(dimethylaminomethyl)phenol RRN: 01-2119560597-27 EC: 202-013-9 CAS: 90-72-2 Index: 603-069-00-0	>= 5 - < 10	C; R34 R52/53	Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
2-Propenenitrile, reaction products with 2,2,4(or 2,4,4)-trimethyl-1,6-hexanediamine	>= 3 - < 5	Xn; R22	Acute Tox. 4, H302	[1]

SECTION 3: Composition/information on ingredients

EC: 292-059-6 CAS: 90530-20-4		C; R34 R43 N; R51/53	Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 2, H411	
Trimethylhexane-1,6-diamine EC: 247-134-8 CAS: 25620-58-0	>= 1 - < 2.5	Xn; R22 C; R34 R43 R52/53	Acute Tox. 4, H302 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412	[1]
		See section 16 for the full text of the R-phrases declared above	**See Section 16 for the full text of the H statements declared above.**	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Get medical attention immediately. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation : Get medical attention immediately. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus.

Skin contact : Get medical attention immediately. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Ingestion : Get medical attention immediately. Do not induce vomiting unless directed to do so by medical personnel. Chemical burns must be treated promptly by a physician. Maintain an open airway.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact : Corrosive to eyes. Causes burns.

Inhalation : Harmful by inhalation. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitisation by skin contact.

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

SECTION 4: First aid measures

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is harmful to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

6.2 Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material.

SECTION 6: Accidental release measures

6.3 Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container.

Large spill : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. 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 (see section 13).

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

Derived effect levels

No DELs available.

SECTION 8: Exposure controls/personal protection

Predicted effect concentrations

No PECs available.

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Reference number EN 374. Suitable for short time use or protection against splashes: Butyl rubber/nitrile rubber gloves. (0,4 mm), breakthrough time <30 min. Contaminated gloves should be removed. Suitable for permanent exposure: Viton gloves (0.4 mm), breakthrough time >30 min.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Use barrier skin cream.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : No special measures required.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Yellowish.

Odour : Amine-like.

Odour threshold : Not available.

pH : >11

Melting point/freezing point : Not available.

Initial boiling point and boiling range : Not available.

Flash point : Closed cup: >101°C

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Burning time : Not applicable.

Burning rate : Not applicable.

Upper/lower flammability or explosive limits : Not applicable.

Vapour pressure : Not applicable.

SECTION 9: Physical and chemical properties

Vapour density	:	Not available.
Density	:	~1.018 g/cm^3 [20°C (68°F)]
Relative density	:	Not available.
Solubility(ies)	:	Insoluble in the following materials: water
Partition coefficient: n-octanol/water	:	Not available.
Auto-ignition temperature	:	420°C
Decomposition temperature	:	Not available.
Viscosity	:	Dynamic: 12 mPa·s Kinematic (40°C): 0.07 to 0.205 cm^2/s
Explosive properties	:	Not available.
Oxidising properties	:	Not available.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	Reactive or incompatible with the following materials: acids
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
benzyl alcohol	LC50 Inhalation Dusts and mists	Rat	>4.178 mg/l	4 hours
	LD50 Oral	Rat	1230 mg/kg	-
3-aminomethyl-3,5,5-trimethylcyclohexylamine	LD50 Dermal	Rat	1100 mg/kg	-
	LD50 Oral	Rat	1030 mg/kg	-
m-phenylenebis(methylamine)	LC50 Inhalation Vapour	Rat	1.34 mg/l	4 hours
	LD50 Dermal	Rat	3100 mg/kg	-
	LD50 Oral	Rat	930 mg/kg	-
3,6,9-triazaundecamethylenediamine	LD50 Dermal	Rat	1100 mg/kg	-
	LD50 Oral	Rat	1716.2 mg/kg	-
2,4,6-tris(dimethylaminomethyl)phenol	LD50 Oral	Rat	500 mg/kg	-

Conclusion/Summary : Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

SECTION 11: Toxicological information

Sensitisation

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Corrosive to eyes. Causes burns.

Inhalation : Harmful by inhalation. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system. May cause irritation.

Skin contact : Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitisation by skin contact.

Ingestion : Harmful if swallowed. May cause burns to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

SECTION 11: Toxicological information

Other information : Not available.

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
benzyl alcohol	1.1	-	low
m-phenylenebis(methylamine)	0.18	2.691534803	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances

Packaging : Completely emptied packaging or practically empty packaging containing dried/cured residues, once relieved of all pressure can be disposed of as non-hazardous waste.

Packaging may still contain hazardous residues and disposal should undertaken by a licensed waste contractor.

Any disposal practice must be in compliance with local and national laws and regulations.

European waste catalogue (EWC) (Packaging) : packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

	ADR/RID - ADN/ADNR	IMDG	IATA
14.1 UN number	UN1760	UN1760	UN1760
14.2 UN proper shipping name	Corrosive liquid, n.o.s. Isophoronediamine, Xylylenediamine	Corrosive liquid, n.o.s. Isophoronediamine, Xylylenediamine	Corrosive liquid, n.o.s. Isophoronediamine, Xylylenediamine
14.3 Transport hazard class(es)	8 	8 	8 
14.4 Packing group	III	III	III
14.5 Environmental hazards	No	No	No
14.6 Special precautions for user	Not available.	Not available.	Not available.
Additional information	**Tunnel code** (E)	**Emergency schedules (EmS)** F-A, S-B	-
Classification code	C9		

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

VOC content (EU) : VOC (w/w): 48%

Other EU regulations

REACH Information: : All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Europe inventory : All components are listed or exempted.

References : Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP 4)
Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended)
Health & Safety at Work Act 1974
The Environmental Protection (Duty of Care) Regulations 1991

SECTION 15: Regulatory information

Hazardous waste regulations 2005
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007

Guidance Publications : Approved Code of Practice - Management of Health and Safety at Work, HSE
General Approved Code of Practice to COSHH Regulations, HSE.

15.2 Chemical Safety Assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Full text of abbreviated H statements :

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS] :

Acute Tox. 4, H302	ACUTE TOXICITY: ORAL - Category 4
Acute Tox. 4, H312	ACUTE TOXICITY: SKIN - Category 4
Acute Tox. 4, H332	ACUTE TOXICITY: INHALATION - Category 4
Aquatic Chronic 2, H411	AQUATIC TOXICITY (CHRONIC) - Category 2
Aquatic Chronic 3, H412	AQUATIC TOXICITY (CHRONIC) - Category 3
Eye Irrit. 2, H319	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Skin Corr. 1A, H314	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B, H314	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C, H314	SKIN CORROSION/IRRITATION - Category 1C
Skin Sens. 1, H317	SKIN SENSITIZATION - Category 1

Full text of abbreviated R phrases : R22- Harmful if swallowed.
R20/22- Harmful by inhalation and if swallowed.
R20/21/22- Harmful by inhalation, in contact with skin and if swallowed.
R21/22- Harmful in contact with skin and if swallowed.
R34- Causes burns.
R43- May cause sensitisation 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.

Full text of classifications [DSD/DPD] : C - Corrosive
Xn - Harmful
N - Dangerous for the environment

History

Date of printing : **24.05.2013.**

Date of issue : **24.05.2013.**

Date of previous issue : **No previous validation.**

Notice to reader

SECTION 16: Other information

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.