

Revision Date: 2015/07/01
Revision: 02
Supersedes Date: -



MATERIAL SAFETY DATASHEET PLASTIC STEEL A BASE

1. Identification of Substance/ Preparation and Company

Product Name: MULAX PLASTIC STEEL PASTE BASE
Product Code: MUL10112
Company: Riga 3, 2993 LW, Barendrecht, The Netherlands
Chemical Name & Synonyms: Aliphatic polyamine hardener blend with inert fillers
For Information: Call on +31 (0)88-6641777 (9am to 5pm)
In an Emergency: As Above

2. Hazards Identification

Classification of the substance or mixture

Classification in accordance with the dangerous preparations directive 1999/45/EC:

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

Classification in accordance with the classification labelling and packaging regulation EC (no) 1272/2008:

Skin Irritant Category 2 H315 Causes skin irritation
Eye Irritant Category 2 H319 Causes serious eye irritation
Skin Sensitiser Category 1 H317 May cause an allergic skin reaction
Aquatic Chronic Category 2 H411 Toxic to aquatic life with long lasting effects

Label elements

Labelling in accordance with the classification labelling and packaging regulation EC (no) 1272/2008.

Pictograms:



Signal word: WARNING

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: P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents/container as hazardous waste

Other hazards

May cause irritation to the eyes and skin, and if ingested, to the gastrointestinal tract. May cause allergic skin reaction. If released into watercourses in sufficient quantities may be toxic to aquatic life. None of the components are considered to be Persistent, Bioaccumulative and Toxic (PBT) or very Persistent, very Bioaccumulative (vPvB).

3. Composition/ Information on Ingredients

Substances: Not applicable, product is a mixture

Mixtures: Contains the following hazardous components above thresholds of concern

| Hazardous Components | Cas Number | % | Classification according to Regulation (EC) No 1272/2008 | Classification according to Directive 67/548/EEC |
|--|------------|--------|--|--|
| Reaction product Bisphenol F-(epichlorhydrin) | 28064-14-4 | 10-30% | Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Chronic 2 H411 | Xi; R38-43-51/53 |
| Reaction product bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) | 25068-38-6 | 10-30% | Skin Irrit. 2 H315, Eye Irrit. 2 H319, Skin Sens. 1 H317, Aquatic Chronic 2 H411 | Xi; R36/38-43-51/53 |

Revision Date: 2015/07/01
Revision: 02
Supersedes Date: -



MATERIAL SAFETY DATASHEET PLASTIC STEEL A BASE

See section 16 for full description of R phrases and H statements.

4. First Aid Measures

Summon immediate medical assistance after contact with skin, eyes, inhalation or ingestion

Eye: Flush eyes with plenty of running water for several minutes, whilst gently holding the eyelids open. Seek medical attention if irritation persists.
Skin: Remove product and contaminated clothing and wash area with water, seek medical advice. Wash contaminated clothing before re-use.
Ingestion: Drink plenty of water, DO NOT INDUCE VOMITING. Seek medical attention immediately.
Inhalation: Remove patient to fresh air. If breathing has stopped give assisted respiration. Prevent aspiration of vomit. Turn victims head to one side. Seek medical advice.

Most important symptoms and effects, both acute and delayed

Eye Contact: Sign/ Symptoms may include redness, tearing, pain.
Skin Contact: Sign/ Symptoms may include localised redness, swelling, itching
Inhalation: Sign/ Symptoms may include cough, sneezing, nasal discharge, tightness of chest, headache, hoarseness and nose and throat irritation.
Ingestion: Signs/ Symptoms may include irritation of the mouth, throat, nausea, vomiting.

Indication of any immediate medical attention and special treatments needed

Symptomatic treatment as required

5. Fire Fighting Measures

Extinguishing Media: Ignition will give rise to class B Fire, in case of fire use Water sprays, Dry chemical, CO₂ or Alcohol foam
Special hazards: Sudden reaction and fire may result if mixed with an oxidizing agent.
Advice for fire fighters: Wear Self-contained breathing apparatus, rubber boots, gloves and body suit

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Remove all unnecessary personnel from the area. Ventilate the area if possible. Wear suitable protective clothing including chemical resistant gloves and coveralls. If vapour concentrations are high, respiratory protective equipment may be required. See section 8 for more information.

Environmental precautions

Prevent entry into sewers and watercourses. If product enters sewers or watercourses, inform the appropriate environmental authorities.

Methods and materials for containment and cleaning up

Scrape up and transfer into a suitable container. Wash area with water.

References to other sections

Refer to section 5, 8 and 13 for protective Measures and Disposal.

7. Handling and Storage

Precautions for safe handling

Avoid contact with skin, eyes and clothing. Handle in well ventilated area. Avoid breathing vapours. Wash hands after contact.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, well ventilated area. Keep away from oxidizers, heat or flames.

Specific end uses(s)

No industrial or sector specific guidance available.

Revision Date: 2015/07/01
Revision: 02
Supersedes Date: -



MATERIAL SAFETY DATASHEET PLASTIC STEEL A BASE

8. Exposure Controls/ Personal Protection

Control parameters:

| Substance Name | 8 hour exposure limit | 15 min exposure limit | Notes, Source |
|--|-----------------------|-----------------------|---------------|
| Talc (magnesium silicate), respirable dust | 1 mg/m ³ | — | EH40, 2011 |

Engineering controls:

Adequate ventilation should be provided so that exposure limits are not exceeded.

Respiratory:

Not normally required. If significant aerosols are likely to be generated a suitable respirator may be required. Suggested filter type AP2.

Hand protection:

Wear suitable chemical resistant gloves. Nitrile or neoprene gloves may be suitable, but glove manufacturers' specifications should always be checked first. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Skin protection:

Avoid Skin Contact; use disposable coveralls

Eye protection:

Avoid Eye Contact; use safety goggles meeting the requirements of BS EN166 3, when handling this product

Environmental exposure control: Take suitable measures to prevent entry into drains, sewers and watercourses.

9. Physical/ Chemical Properties

Information on basic physical and chemical properties:

| | |
|----------------------------------|---|
| Appearance: | Grey Paste |
| Odour: | Weak |
| Odour threshold: | No data |
| PH: | Neutral |
| Melting Point: | No data |
| Boiling Point/ Range: | 170C |
| Flash Point: | >150C |
| Evaporation Rate: | No data |
| Flammability: | Not applicable |
| Upper/lower flammability limits: | No data |
| Vapour Pressure: | No data |
| Vapour density: | No data |
| Relative density: | 2.7g/cm ³ at 20C |
| Solubility in water: | Insoluble in water |
| Solubility in other solvents: | Soluble in organic solvents |
| Partition Coefficient: | Log Kow 3-5 (estimated) (Bisphenol A/F epoxy resin) |
| Autoignition temperature: | Above boiling point |
| Decomposition temperature: | No data |
| Viscosity: | Thick paste |
| Explosive properties: | Not classified as explosive |
| Oxidising properties: | Not classified as oxidising |

10. Stability and Reactivity

Reactivity:

Not considered to be a reactive product

Chemical stability:

Stable

Possibility of hazardous reactions:

Hazardous Polymerisation is not likely to occur

Conditions to avoid:

Excessive heat

Incompatible materials:

Acids - reaction accompanied by large heat release occurs when the product is mixed with acids.

Hazardous decomposition products: None identified.

11. Toxicological Information

Information on toxicological effects

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

| | |
|-----------------------------------|---|
| (a) acute toxicity | Based on consideration of the components, the mixture is not expected to be harmful by inhalation, ingestion or in contact with skin. The ATE for the mixture is expected to be >2000 mg/kg |
| (b) skin corrosion/irritation | Based on consideration of the components, the mixture is expected to be irritating to skin. |
| (c) serious eye damage/irritation | Based on consideration of the components, the mixture is expected to be irritating to eyes. |

Revision Date: 2015/07/01
Revision: 02
Supersedes Date: -



MATERIAL SAFETY DATASHEET PLASTIC STEEL A BASE

| | |
|------------------------------------|--|
| (d) respiratory/skin sensitisation | The product contains the following known sensitisers: Bisphenol A epoxy resin, Persons previously sensitized to amines may develop a cross sensitization reaction to certain other amines. |
| (e) germ cell mutagenicity | Contains no substances identified as mutagens. |
| (f) carcinogenicity | Contains no substances identified as carcinogens. |
| (g) reproductive toxicity | Resins based on Bisphenol A did not cause adverse effects in animal tests. |
| (h) STOT-single exposure | Target organ toxicity is not expected with this product. |
| (i) STOT-repeated exposure | Target organ toxicity is not expected with this product. |
| (j) aspiration hazard | Not applicable. |

12. Ecological Information

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

Toxicity

This product contains components which are considered to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. Once cured the toxicity of the product is expected to decrease.

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

Fish Acute & Prolonged Toxicity

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 h: 2 mg/l

Aquatic Invertebrate Acute Toxicity

EC50, Daphnia magna (Water flea), static test, 48 h, immobilization: 1.8 mg/l

Aquatic Plant Toxicity

ErC50, Scenedesmus capricornutum (fresh water algae), static test, Growth rate inhibition, 72 h: 11 mg/l

Toxicity to Micro-organisms

IC50; Bacteria, 18 h: > 42.6 mg/l

Aquatic Invertebrates Chronic Toxicity Value

Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, NOEC: 0.3 mg/l

Persistence and degradability

This product is not expected to be readily biodegradable.

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

| Biodegradation | Exposure Time | Method | 10 Day Window |
|----------------|---------------|--------|---------------|
|----------------|---------------|--------|---------------|

| | | | |
|------|------|----------------|----------------|
| 12 % | 28 d | OECD 302B Test | Not applicable |
|------|------|----------------|----------------|

Bioaccumulative potential

This product is expected to have a low bioaccumulation potential.

Mobility in soil

Mobility of the uncured product is expected to be low. Cured product is expected to be immobile.

Results of PBT and vPvB assessment

None of the components are known to be PBT or vPvB.

Other adverse effects

None known.

13. Disposal Considerations

Waste treatment methods

In uncured state, dispose as chemical waste in accordance with local regulations. Waste from this product may present long term environmental hazards. Thus landfill sites must be considered less acceptable than incineration.

In cured state when mixed correctly with the base component, dispose as solid waste

Empty containers should be disposed of as chemical waste.

14. Transport Information

General

Transport and labelling requirements will alter depending on the size of the packaging. Please refer to local transport regulations.

Revision Date: 2015/07/01
Revision: 02
Supersedes Date: -



MATERIAL SAFETY DATASHEET PLASTIC STEEL A BASE

| | ADR | IMDG | ICAO |
|---|--|--|--|
| 14.1 UN Number | 3077 | 3077 | 3077 |
| 14.2 UN Proper shipping name | Environmentally hazardous substance, solid, N.O.S. (epoxy resin) | Environmentally hazardous substance, solid, N.O.S. (epoxy resin) | Environmentally hazardous substance, solid, N.O.S. (epoxy resin) |
| 14.3 Transport hazard class(es) | 9 | 9 | 9 |
| 14.4 Packing group | III | III | III |
| 14.5 Environmental hazards | Environmentally hazardous | Marine Pollutant | Environmentally hazardous |
| 14.6 Special precautions for user | HIN 90 | EmS F-A, S-F | None |
| 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable | Not applicable | Not applicable |

15. Regulatory Information

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

All components are listed as existing substances in Europe
All components are listed, or are exempt from listing on the TCSA Inventory

Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out for this product.

16. Other Information

Revision information:

Reformatted in accordance with Regulation 453/2010 and Regulation 1272/2008.

List of Abbreviations used in this SDS:

CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
DSD Dangerous Substances Directive 67/548/EEC
DPD Dangerous Preparations Directive 1999/45/EC
EC European Community/Commission
PBT Persistent, Bioaccumulative and Toxic
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006
vPvB very Persistent, very Bioaccumulative

References:

ECHA Classification and Labelling inventory
ECHA database of disseminated registration dossiers
Supplier's Safety Data Sheets
Method used for classification of mixtures:
Ingredient based approaches

R Phrases and H Statements used in Section 3

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.

R36/38 Irritating to eyes and skin.
R38 May be irritating to skin
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Training requirements for workers

No special training requirements.