



Material SAFETY DATA SHEET

Griptop TF - Hardener

1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: **Griptop TF - Hardener**

Description: Hardener part of three component heavy duty modified epoxy polyurethane system topping for floor surfaces

Manufacturer: **Ayla for Building Materials Industry & Trade**
Al-Karadeh, Arsat Al-Hindia, Baghdad
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2: COMPOSITION / INFORMATION ON INGREDIENTS

Composition: Curing agents.

| Hazardous Ingredient(s) | Symbol | Risk Phrases | CAS No. | % |
|----------------------------|----------|------------------------|-----------|---------|
| Polyoxypropylendiamin | Xn, C | R22, 34 | 9046-10-0 | 10 - 40 |
| Nonylphenol | Xn, C, N | R22, 34, 62, 50/53, 63 | 112-24-3 | 5 - 30 |
| 2-piperazin-1-ylethylamine | Xn, C | R21/22, 34, 43, 52/53 | 140-31-8 | 5 - 25 |
| 2,2'-iminodiethylamine | Xn, C | R21/22, 34, 43 | 111-40-0 | 5 - 20 |
| Polyamide resin | Xi | R36/38, 43, 52/53 | - | 5 - 20 |
| Benzyl alcohol | Xn | R20/22 | 100-51-6 | 5 - 18 |

Refer to Section 8 for Occupational Exposure Limits.

3: HAZARDS IDENTIFICATION

Hazard Information: Harmful by inhalation, in contact with skin and if swallowed.
Causes burns.
Irritating to eyes and skin.
May cause sensitization by skin contact.
Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Classification: Xn, C, N. R20/21/22, 34, 36/38, 43, 50/53.



4: FIRST AID MEASURES

| | |
|-------------|--|
| Eyes: | Irrigate immediately with copious quantities of water for 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Obtain medical attention if irritation persists. |
| Skin: | Wash thoroughly with soap and water or suitable skin cleanser as soon as possible. Remove contaminated clothing. Obtain medical advice if skin disorder develop. |
| Inhalation: | Move to fresh air. Obtain medical attention if needed. |
| Ingestion: | Immediately give plenty of water (if possible charcoal slurry). If a person vomits when lying on his back, place him in a recovery position. Administer oxygen or artificial respiration if needed. Do not induce vomiting. Obtain medical advice. |

5: FIRE FIGHTING MEASURES

| | |
|--------------------------------|---|
| Flash Point: | Not applicable. |
| Special Exposure Hazards: | In case of fire toxic fumes will be formed (amines), Carbon oxides and Nitrogen oxides. |
| Extinguishing Media: | Powder, carbon dioxide, foam, water mist (only large amounts). |
| Personal Protective Equipment: | Wear protective clothing and use self-contained breathing apparatus. |

6: ACCIDENTAL RELEASE MEASURES

| | |
|-----------------------------|---|
| Personal Precautions: | Put on adequate protective equipment. |
| Environmental Precautions: | Keep away from drains, surface-water, ground-water and soil. |
| Decontamination Procedures: | Collect as much as possible in a container for disposal. Cover the remainder with inert absorbent. Disposal according to local regulations. |

7: HANDLING AND STORAGE

| | |
|-----------|---|
| Handling: | Do not breathe vapour. Avoid contact with skin and eyes. |
| Storage: | Keep containers securely closed and dry, store at 15 - 20°C. Store only in unopened original containers. Provide floor trough without outlet. |



8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

| | |
|-------------------------|--|
| Ingestion: | Prevent eating, drinking or smoking in the area of product use. |
| Eye Contact: | Safety glasses or chemical goggles. |
| Skin Contact: | Impervious gloves (e.g. PVC). |
| Inhalation: | When mist occurs during spraying operations, wear suitable respiratory protective equipment. |
| Respiratory Protection: | In case of insufficient ventilation, wear suitable equipment. |
| Engineering Controls: | Use only in well ventilated areas. Local exhaust ventilation is recommended. |

9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|----------------|
| Form: | Viscous liquid |
| Colour: | Yellow |
| Odour: | Mild amines |
| Flash Point (closed cup) (°C): | Not applicable |
| Boiling Point (°C): | Not applicable |
| Explosive Properties (%): | Not applicable |
| Freezing Point (°C): | Not applicable |
| Relative Density (@25°C): | 0.95 – 1.05 |
| Water Solubility: | Insoluble |

10: STABILITY AND REACTIVITY

| | |
|-----------------------------------|---|
| Stability: | Stable. |
| Conditions to Avoid: | Excessive heating. Direct sunshine should be avoided. |
| Chemical Incompatibility: | Acids, Reacts violently with oxidizing agents. |
| Hazardous Decomposition Products: | Noxious fumes, carbon oxides, nitrogen oxides. |



11: TOXICOLOGICAL INFORMATION

The following toxicological assessment is based on knowledge of the toxicity of the product's components.
Expected oral LD50, rat >15 g/kg

Health Effects

| | |
|----------------|-----------------|
| On Eyes: | Irritant. |
| On Skin: | Irritant. |
| By Inhalation: | Irritant. |
| By Ingestion: | Irritant. |
| Chronic: | Not applicable. |

12: ECOLOGICAL INFORMATION

| | |
|---------------------------|--|
| Environmental Assessment: | When used and disposed off as intended, no adverse environmental effects are foreseen. |
| Mobility: | Not applicable. |
| Degradability: | Not applicable. |
| Bioaccumulation: | Bioaccumulative potential. |
| Acute Fish Toxicity: | May cause long-term adverse effects in the aquatic environment. |

13: DISPOSAL CONSIDERATION

Disposal must be in accordance with local and national legislation.

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|-----------------------------|--|
| Unused Product: | Dispose off through an authorized waste contractor to a licensed site. |
| Used/ Contaminated Product: | As for unused product. |
| Packaging: | May be steam cleaned and recycled. |

14: TRANSPORT INFORMATION



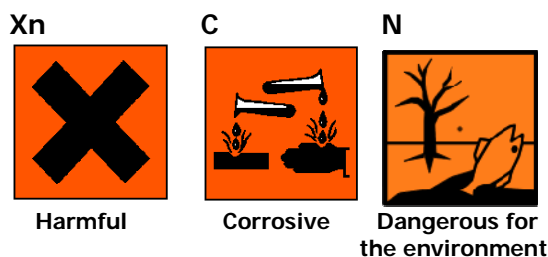
UN Number: 1760

Transport Name: Corrosive liquid, n.o.s. (Polyoxypropylendiamin, nonylphenol).

| Transport Type: | | Class: | Pack Group: | Marine Pollutant |
|-----------------|-----------|--------|-------------|------------------|
| At Sea | IMO | 8 | II | Yes |
| Air Transport | IATA/ICAO | 8 | II | |
| At land | RID/ADR | 8 | II | |

15: REGULATORY INFORMATION

Hazard Label Data:



Contains: Polyoxypropylendiamin

UN Number: 1760

Risk Phrases:

| | |
|-----------|--|
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |
| R34 | Causes burns. |
| R36/38 | Irritating to eyes and skin. |
| R43 | May cause sensitization by skin contact. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

Safety Phrases:

| | |
|-----------|---|
| S24/25 | Avoid contact with skin and eyes. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S28 | After contact with skin, wash immediately with plenty of soap and water. |
| 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). |
| S60 | This material and its container must be disposed of as hazardous waste. |

16: OTHER INFORMATION

Issue Date: 23/04/2013

Revised Date:

Disclaimer: The information contained herein is derived from the best available sources and is believed to be accurate. However, no guarantee is expressed or implied regarding the accuracy of the data given in the use of this product.