# N 18 Mortar

**Three Component Epoxy Mortar**

MSDS
Material Safety Data Sheet


## 1. Identification of the Substance/Preparation and Company

Product Name:N 18 Mortar
Product Description:Three Component Epoxy Mortar

Manufacturer/Supplier: **Carbolink India Private Limited**
Address: 105, 1st Floor, Bhavya's Arcade, Above BATA Showroom,
Erragadda, Hyderabad- 500018

Contact Information: +91 9246399551,
info@carbolinkindia.com
Emergency Contact: +91 8885099551

## 2. Hazards Identification

**Classification of the Substance or Mixture:**
Skin Corrosion/Irritation: Category 2. Serious Eye Damage/Eye Irritation: Category 2A. Skin Sensitization: Category 1. Respiratory Sensitization: Category 1. Specific Target Organ Toxicity - Single Exposure: Category 3. Hazardous to the Aquatic Environment, Chronic: Category 2.
**Label Elements:**
**Pictograms:** <br>
**Signal Word:** Danger
**Hazard Statements:**
H315: Causes skin irritation. H317: May cause an allergic skin reaction. H319: Causes serious eye irritation. H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335: May cause respiratory irritation. H411: Toxic to aquatic life with long lasting effects.
**Precautionary Statements:**
**Prevention:**
P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P264: Wash hands and face thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection. P285: In case of inadequate ventilation wear respiratory protection. P273: Avoid release to the environment.
**Response:**
P302+P352: IF ON SKIN: Wash with plenty of soap and water. P333+P313: If skin irritation or rash occurs: Get medical advice/attention. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor. 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. P391: Collect spillage.
**Storage:**
P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up.
**Disposal:**
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.
**Other Hazards:**
May cause slight irritation to the respiratory system. Prolonged or repeated exposure may cause skin dryness or cracking.

## 3. Composition/Information on Ingredients

**Mixture:**
This product is a three-component system comprising of Resin (Part A), Hardener (Part B), and Filler (Part C).
**Component Information:**

**Note:** Exact percentages are withheld as trade secrets.

| Component | CAS Number | % by Weight | Classification |
|---|---|---|---|
| Epoxy Resin (Bisphenol A Epoxy Resin) | 25068-38-6 | 30-40% | Skin Irrit. 2, Eye Irrit. 2A, Skin Sens. 1, Aquatic Chronic 2 |
| Polyamine Hardener | Proprietary | 15-25% | Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, Aquatic Chronic 3 |
| Inert Mineral Fillers | Mixture | 40-50% | Not Classified |

## 4. First Aid Measures

**General Advice:** Seek medical attention immediately if symptoms occur. Show this safety data sheet to the doctor in attendance.
**Inhalation:** Move the exposed person to fresh air immediately. If breathing is difficult, administer oxygen. If not breathing, provide artificial respiration. Seek medical attention if symptoms persist.
**Skin Contact:** Remove contaminated clothing and shoes immediately. Wash affected area thoroughly with soap and water. Do not use solvents or thinners. Seek medical attention if irritation develops or persists.
**Eye Contact:** Rinse cautiously with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing. Seek medical attention if irritation persists.
**Ingestion:** Do not induce vomiting unless instructed by medical personnel. Rinse mouth with water. Drink plenty of water. Seek immediate medical attention.
**Most Important Symptoms and Effects, both Acute and Delayed:** Skin irritation, redness, and possible sensitization. Eye irritation, redness, and tearing. Respiratory irritation, coughing, and difficulty breathing. Allergic reactions in sensitized individuals.
**Indication of any Immediate Medical Attention and Special Treatment Needed:** Treat symptomatically. In case of allergic reactions, administer antihistamines or corticosteroids as appropriate.

## 5. Firefighting Measures

**Suitable Extinguishing Media:** Water spray (fog), foam, dry chemical powder, or carbon dioxide ($CO_2$).
**Unsuitable Extinguishing Media:** High-pressure water jets, as they may spread the fire.
**Special Hazards Arising from the Substance or Mixture:** Combustion may produce hazardous fumes and gases such as carbon monoxide, carbon dioxide, and nitrogen oxides. Containers may burst if overheated.
**Advice for Firefighters:** Wear full protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Cool containers exposed to fire with water spray. Prevent runoff from fire control from entering waterways.
**Additional Information:** Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. Accidental Release Measures

**Personal Precautions, Protective Equipment, and Emergency Procedures:** Evacuate personnel to safe areas. Wear appropriate personal protective equipment (PPE) including gloves, safety goggles, and protective clothing. Avoid inhalation of vapors and contact with skin and eyes. Ensure adequate ventilation.
**Environmental Precautions:** Prevent further leakage or spillage if safe to do so. Do not allow product to enter drains, watercourses, or soil. Notify appropriate authorities if significant contamination occurs.
**Methods and Materials for Containment and Cleaning Up:** Contain the spill with inert absorbent materials (e.g., sand, earth). Collect the material into suitable, labeled containers for disposal according to local regulations. Clean the contaminated area thoroughly with water and detergent. Dispose of contaminated absorbent material according to local regulations.
**Reference to Other Sections:** For personal protection see Section 8. For disposal considerations see Section 13.

## 7. Handling and Storage

**Precautions for Safe Handling: Use only in well-ventilated areas.** Avoid contact with skin, eyes, and clothing. Do not breathe vapors or dust. Wear appropriate PPE as specified in Section 8. Wash hands and face thoroughly after handling. Do not eat, drink, or smoke while using this product. Keep containers tightly closed when not in use. Use proper grounding procedures to avoid static discharge.
**Conditions for Safe Storage, Including any Incompatibilities:** Store in a cool, dry, and well-ventilated place away from direct sunlight and heat sources. Keep containers tightly sealed. Store away from incompatible materials such as strong acids, bases, and oxidizing agents. Maintain storage temperature between 10°C and 30°C. Protect from moisture and physical damage.
**Specific End Use(s):** Intended for professional use in industrial and commercial floor repair and resurfacing applications.

## 8. Exposure Controls/Personal Protection

**Control Parameters:** No occupational exposure limits have been established for this product.
**Exposure Controls:**
**Engineering Controls:** Provide adequate ventilation to keep vapor concentrations below acceptable limits. Use local exhaust ventilation in confined areas.
**Personal Protective Equipment:**
**Eye/Face Protection:** Safety goggles or face shield complying with EN166.
**Skin Protection:** Chemical-resistant gloves (e.g., nitrile, neoprene) complying with EN374. Protective clothing with long sleeves and closed footwear.

**Respiratory Protection:** In case of insufficient ventilation, wear suitable respiratory equipment such as a half-mask respirator with organic vapor cartridges (EN 14387).
**Hand Protection:** Wear protective gloves resistant to chemicals as per EN374.
**Environmental Exposure Controls:** Prevent leakage or spillage into the environment. Install spill containment measures where appropriate.
**Hygiene Measures:** Wash hands, forearms, and face thoroughly after handling products. Remove contaminated clothing and protective equipment before entering eating areas.

## 9. Physical and Chemical Properties

| Property | Part A (Resin) | Part B (Hardener) | Part C (Filler) |
|---|---|---|---|
| Appearance: | Viscous liquid | Viscous liquid | Powder |
| Color: | Clear to pale yellow | Amber to brown | Gray |
| Odor | Mild | Amine-like | Odorless |
| Odor Threshold: | Not available | Not available | Not applicable |
| pH: | Not applicable | Alkaline | Not applicable |
| Melting Point/Freezing Point: | Not available | Not available | >1000°C |
| Initial Boiling Point and Boiling Range | >200°C | >200°C | Not applicable |
| Flash Point | >150°C (Closed cup) | >100°C (Closed cup) | Not applicable |
| Evaporation Rate: | Not available | Not available | Not applicable |
| Flammability (solid, gas) | Non-flammable | Non-flammable | Non-flammable |
| Upper/Lower Flammability or Explosive Limits: | Not available | Not available | Not applicable |
| Vapor Pressure: | <0.1 mmHg @ 20°C | <0.1 mmHg @ 20°C | Not applicable |
| Vapor Density: | Heavier than air | Heavier than air | Not applicable |
| Relative Density | 1.1 - 1.2 g/cm³ | 1.0 - 1.1 g/cm³ | 2.6 - 2.8 g/cm³ |
| Solubility: | Insoluble in water | Slightly soluble in water | Insoluble in water |
| Partition Coefficient (n-octanol/water) | Not available | Not available | Not applicable |
| Auto-ignition Temperature | >300°C | >300°C | Not applicable |
| Decomposition Temperature | Not available | Not available | Not applicable |
| Viscosity | 1000-1500 mPa.s @25°C | 500-800 mPa.s @25°C | Not applicable |

**Other Information:**
**Mix Ratio:** Part A : Part B : Part C = 4:2:15 by weight
**Mixed Density:** Approximately 2.0 g/cm³
**Working Time:** 30-40 minutes at 30°C
**Curing Time:** Foot traffic allowed after 8 hours; full cure achieved in 7 days.

## 10. Stability and Reactivity

**Reactivity:** No dangerous reactions known under normal conditions of use and storage.
**Chemical Stability:** Stable under recommended storage and handling conditions.
**Possibility of Hazardous Reactions: Exothermic** reactions may occur when mixed with incompatible materials such as strong
**Conditions to Avoid:** Excessive heat, open flames, and ignition sources. Moisture and high humidity.
**Incompatible Materials:** Strong acids, strong bases, strong oxidizing agents, and amines (for Part A).
**Hazardous Decomposition Products:** Thermal decomposition may produce hazardous fumes such as carbon monoxide, carbon dioxide, nitrogen oxides, and other toxic gases.

## 11. Toxicological Information

**Information on Toxicological Effects:**
**Acute Toxicity:**
**Epoxy Resin (Part A):**
Oral LD50 (Rat): > 2000 mg/kg
Dermal LD50 (Rabbit): > 2000 mg/kg
Inhalation LC50: Not available
**Polyamine Hardener (Part B):**
Oral LD50 (Rat): 1000-2000 mg/kg
Dermal LD50 (Rabbit): 2000-3000 mg/kg
Inhalation LC50: Not available
**Filler (Part C):** Not classified as toxic.
**Skin Corrosion/Irritation:** Causes skin irritation. Prolonged contact may cause dermatitis.
**Serious Eye Damage/Eye Irritation:** Causes serious eye irritation.
**Respiratory or Skin Sensitization:** May cause allergic skin reactions. May cause respiratory sensitization in susceptible individuals.
**Germ Cell Mutagenicity:** Components are not known to be mutagenic.
**Carcinogenicity:** Components are not classified as carcinogens by IARC, NTP, or OSHA.
**Reproductive Toxicity:** No data available indicating reproductive toxicity.
**STOT-Single Exposure:** May cause respiratory irritation.
**STOT-Repeated Exposure:** No data available.
**Aspiration Hazard:** Not considered an aspiration hazard.
**Additional Information:** Pre-existing skin and respiratory conditions may be aggravated by exposure.

## 12. Ecological Information

**Toxicity:**
**Epoxy Resin (Part A):** Toxic to aquatic life with long lasting effects. LC50 (Fish, 96h): 1-10 mg/L. EC50 (Daphnia, 48h): 1-10 mg/L.
**Polyamine Hardener (Part B):** Harmful to aquatic life. LC50 (Fish, 96h): 10-100 mg/L. EC50 (Daphnia, 48h): 10-100 mg/L.
**Filler (Part C):** Not expected to be harmful to aquatic life.
**Persistence and Degradability:** Epoxy components are not readily biodegradable.
**Bioaccumulative Potential:** Epoxy resins have the potential to bioaccumulate.
**Mobility in Soil:** Low mobility expected due to low solubility in water.
**Other Adverse Effects:** May cause long-term adverse effects in the aquatic environment.

## 13. Disposal Considerations

**Waste Treatment Methods:**
**Product Disposal:** Dispose of in accordance with local, regional, and national regulations. Do not discharge into drains or waterways.
**Contaminated Packaging:** Empty containers should be disposed of as hazardous waste. Do not reuse empty containers.
Additional Information: Incineration under controlled conditions is recommended for disposal.

## 14. Transport Information

**UN Number:** UN3082
**UN Proper Shipping Name:** Environmentally hazardous substance, liquid, n.o.s. (Epoxy Resin)
**Transport Hazard Class(es):** 9
**Packing Group:** III
**Environmental Hazards:** Marine Pollutant: Yes
**Special Precautions for User:** Avoid release to the environment. Ensure containers are secure and properly labeled.
**Transport in Bulk According to Annex II of MARPOL and the IBC Code:** Not applicable.
**Additional Information:**
**ADR/RID:** Class 9, Packing Group III
**IMDG:** Class 9, Packing Group III, Marine Pollutant
**IATA:** Class 9, Packing Group III

## 15. Regulatory Information

**Safety, Health, and Environmental Regulations/Legislation Specific for the Substance or Mixture:**
This product is classified and labeled according to the Globally Harmonized System (GHS). All components are listed or exempted from listing on the following inventories: TSCA (USA), DSL/NDSL (Canada), EINECS/ELINCS (Europe), AICS (Australia), ENCS (Japan), IECSC (China).
**Chemical Safety Assessment:** A Chemical Safety Assessment has not been carried out for this product.

## 16. Other Information

**Abbreviations and Acronyms:** ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals. CAS: Chemical Abstracts Service. LD50: Lethal Dose, 50%. LC50: Lethal Concentration, 50%. EC50: Effective Concentration, 50%. STOT: Specific Target Organ Toxicity. PPE: Personal Protective Equipment.
**Data Reliability:** The information provided in this MSDS is based on current knowledge and experience. Laboratory tests and literature

references have been used to compile this data. Actual conditions of use may vary and are beyond our control.
Regional Compliance: This product complies with local regulations and standards. Users should ensure compliance with regional and local laws prior to use.
**Legal Disclaimer:** The information contained herein is considered accurate as of the date of preparation. No warranty, expressed or implied, is given regarding the accuracy of this data or the results to be obtained from the use thereof. It is the user's responsibility to determine the suitability of the product for their specific purposes and to ensure proper handling and disposal in accordance with applicable laws and regulations. Carbolink India Private Limited shall not be held liable for any damage resulting from handling or from contact with the product described herein.
**Preparation Date:** [Insert Date]
**Revision Date:** [Insert Date]
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