OPTOLINQ[®] Epoxy Molding Compound GT-W170-6

This MSDS adheres to the standards and regulatory requirements of China.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

| Product Name | : | Epoxy Molding Compound, OPTOLINQ [®] GT-W170-6 |
|-----------------------------|---|---|
| Product Use | : | Epoxy molding compound, for IC encapsulation. |
| Manufactured for CaplinQ by | : | TECORE SYNCHEM, INC. |
| | | BL.13, Marine Innovation Park, No. 4668 Xinbei Road, Tanggu, Binhai New Area, Tianjin, China 300451 |
| | | Telephone +86 22 66351157 |
| | | Fax +86 22 66351159 |
| | | Emergency Telephone +86 4001 831 756 |

| 2. HAZARDS IDENTIFICATION | | |
|---------------------------------|---|---|
| Classification of GHS | | |
| Physical Hazards | : | No Classification |
| Health Hazards | | |
| Skin Sensitization | : | Category 1, May cause eye irritation |
| Eye Irritation | | Category 1 |
| Respiratory Sensitization | : | Category 1 |
| Environmental Hazards | : | Category 3 |
| GHS Label Elements | | |
| Pictograms or Hazard Symbols | | |
| Signal Word | : | Danger |
| Hazard Statement | : | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| | | May cause an allergic skin reaction |
| | | Causes eye irritation |
| Precautionary Statement | | |
| Prevention | : | P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves. P264 Wash hands thoroughly after handling |
| 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. |
| | | P305 + P351 + P338 |
| | | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

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| | P337 + P313 |
|----------|---|
| | If eye irritation persists: Get medical advice/attention. |
| | P370+P378 |
| | In case of fire, use water spray, dry chemical, carbon dioxide, or alcohol form for extinction. |
| Storage | P403 + P235 Store in a well-ventilated place, and keep cool. P410 Protect from sunlight. |
| Disposal | : P501 Dispose of contents/container in accordance with local/regional/national/international regulations. |

3. COMPOSITION / INFORMATION ON INGREDIENTS

| No | | | | GHS Classification |
|-------------|---------------------------|------------|--|---|
| 1 | Multi-functional epoxy | 2451-62-9 | 5~20% | May cause long lasting harmful effects to aquatic life, 4; H413 |
| 2 | Bisphenol A epoxy | 25068-38-6 | 1~20% | No Classification |
| | | | | Harmful if swallow; H302 |
| | | | | Skin irritation; H315 |
| 3 Anhydride | 19438-60-9/85-42- | | Damage to eyes; H318 | |
| | 7/935-79-5 | 3~30% | May cause allergy or asthma symptoms or breathing difficulties if inhaled, 1B; H334 | |
| | | | | May cause an allergic skin reaction, 1B; H317 |
| | | | | May cause respiratory irritation; H335 |
| 4 | Silica | 60676-86-0 | 50~90% | Harmful if inhaled 4; H332 |
| 5 | Titanium dioxide | 13463-67-7 | 1~30% | No Classification |

4. FIRST AID MEASURES

| Inhalation | : | If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention |
|--------------|---|---|
| Skin Contact | : | First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water |
| Eye Contact | : | If symptoms develop, flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention |
| Ingestion | : | Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended. |

5. FIRE FIGHTING MEASURES

| Nature of Hazard | : | No data available |
|-------------------------------|---|---|
| Flash Point | : | No data available |
| Hazardous combustion products | : | By thermal decomposition or combustion, water, carbon monoxide and carbon dioxide may be generated. |
| Suitable extinguishing media | : | Water spray, dry chemical, carbon dioxide, sand or alcohol form. |
| Protection of Fire-Fighters | : | Do not inhale combustion to produce gas |
| | | Wear individual breathing apparatus. |
| Others | : | The organic dust may form a combustible or explosive dust/gas mixture in proportion to air mixing to a sufficient amount. |

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6. ACCIDENTAL RELEASE MEASURES

| Personal precautions | : | Wear suitable protective equipment to avoid contact with skin and eye, and inhale gas. |
|---------------------------|---|---|
| Environmental precautions | : | Prevent spills from entering sewers, watercourses or low area. |
| Methods for Cleaning up | : | Waste materials using a broom or cleaning machine not to raise dust. |
| Disposal | : | Consult a waste disposal company for optimum treatment, or abandon by fire according to the local regulation. |

7. HANDLING AND STORAGE

| Safe handling advice | | | | |
|---|---|---|--|--|
| Advice on safe handling | | Keep away from open fire, sparks and ignition sources | | |
| | | Prevention of dust development and deposition. Risk of dust explosion. Take measures to prevent electrostatic discharge | | |
| | | To prevent the occurrence of dust | | |
| | | Provide local ventilations and a full ventilation system. | | |
| | | Avoid contact with eyes, skin and clothing | | |
| Storage | | | | |
| Requirements for storage areas | : | Keep away from sunlight, and heat. | | |
| and containers | | Keep the products in a cool, well ventilated place. | | |
| Storage limits | : | No information available | | |
| Further information on storage conditions | : | No information available | | |
| Materials to avoid | : | Strong acids, alkali | | |
| Advice on protection against fire | : | No information available | | |

| Advice on protection against fire and explosion | • | No information available |
|---|---|--------------------------|
| Mixed storage advice | : | No information available |

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

| Engineering Controls | : | The use of local exhaust ventilation is recommended to control emissions of dust. |
|--------------------------|---|--|
| | | Keep away from open fire, sparks and ignition sources |
| Respiratory protection | : | Avoid inhalation of dust |
| | | In case of inadequate local exhaust ventilation, wear P1, P2 or P3 type particle filter mask |
| Eye protection | : | Safety goggles |
| | | Avoid to contact with eyes. |
| Skin and body protection | : | Wear suitable protective gloves and clothing. |
| | | Protective clothing must cover arms and legs |
| Hand protection | : | Avoid skin contact and wear scalding gloves |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state form | : | Solid tablet |
|---------------------|---|--------------|
| Color | : | White |

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| Odor | : | Slight odor of epoxy or slight sour |
|------|---|-------------------------------------|
| рН | : | 3~7 |

Specific temperature /temperature ranges at which changes in physical state occur

| | 0 | |
|---------------------------|-----------------------------|--|
| Boiling point | : No data available | |
| Boiling range | : No data available | |
| Fusing point | : No data available | |
| Decomposition temperature | : No data available | |
| Flash point | : No data available | |
| Autoignition temperature | : No data available | |
| Explosion properties | : No data available | |
| Vapour pressure | : No data available | |
| Vapour density | : No data available | |
| Density | : 1.6~2.2 g/cm ³ | |
| Solubility in Water | : No data available | |
| Solubility in toluene | : Solvable | |
| | | |

10. STABILITY AND REACTIVITY

| Stability | | : | Decomposition at high temperature |
|------------------|---------------|--------------------------|--|
| | | | Risk of dust explosion |
| | | | Take measures to prevent electrostatic discharge |
| Condition to avo | id | : | Heat, flame, fire and any igniting source. |
| Materials to avo | id | : | Strong acids, alkali, strong oxidizer |
| Hazardous | decomposition | : | Carbon monoxide, carbon dioxide |
| products | | Irritating organic vapor | |
| Hazardous Poly | merization | : | No data available |

11. TOXICOLOGICAL INFORMATION

| Acute toxicity | : | Bisphenol A epoxy , LD50=11400mg/Kg; Multi-functional epoxy, LD50=305mg/Kg; Anhydride, LD50=2500mg/kg |
|-------------------|---|--|
| Subacute toxicity | : | No data available |
| Irritant effects | : | No data available |
| Sensitisation | : | No data available |
| Mutagenicity | : | No data available |
| Teratogenicity | : | No data available |
| Carcinogenicity | : | No data available |
| Other | : | No data available |

12. ECOLOGICAL INFORMATION

| Ecotoxicity | : | No data available |
|-------------------------------|---|-------------------|
| Persistence and degradability | : | No data available |
| Bioaccumulative potential | : | No data available |
| Mobile in Soil | : | No data available |
| Other adverse effects | : | No data available |

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13. DISPOSAL CONSIDERATIONS

| Product | : | Any disposal must be in compliance with country, local, state and federal laws and regulations (contact country, local or state environmental agency specific rules. |
|--|------|--|
| Waste Disposal method | : | Consult waste disposal company for the optimum treatment. |
| Destroying Procedure Contaminated Packing | of : | Cleaned packaging may be recycled. |

14. TRANSPORT INFORMATION

| UN Classification | : | Not regulated as a hazardous material |
|----------------------------------|---|---------------------------------------|
| UN Number | : | Not Applicable |
| Environmental Hazards | : | ADR: No |
| | : | IMDG/ADN: No |
| | : | IATA: No |
| UN Proper Shipping Name | : | Not Applicable |
| Packing Group Rate | : | Not Applicable |
| Special precautions for disposal | : | EmS FIRE SCHEDULE: F-A |
| | | EmS SPILLAGE SCHEDULE: S-I |

15. REGULATORY INFORMATION

The regulatory information listed below is no completed, and some other regulations may be applicable for the specified product(s) also.

| Chinese Classification | : | No classification according to GB13690 |
|------------------------------|---|---|
| EC Pictograms/ Hazard Codes | : | Not Applicable |
| EC Risk Phrases | : | No Classification |
| EC Safety Phrases | : | No Classification |
| EINECS | : | All components listed or polymer exempt. |
| TSCA | : | All components are listed on the TSCA Inventory |
| Other Regulatory Information | : | GB 6944-2005: Classification and Code of Dangerous Goods |
| | | GB/T16483-2008: Safety Data Sheet for Chemical Products-Contents and Order of Sections. |
| | | GB 13690-2009: General Rule for Classification and Hazard Communication of Chemicals |
| | | GB 12268-2005: List of Dangerous Goods |
| | | GBZ 2.1-2007: Occupational Exposure Limits for Hazardous Agents in The Workplace |
| | | List of National Hazardous Wastes (CHINA) |
| 16. OTHER INFORMATION | | |
| Revision Number | : | 1.0 |
| Effective Date | : | 2022-10 |
| MSDS Distribution | : | The information in this document should be made available to all who may handle the product. |
| Disclaimer | : | The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The above information relates |

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