

# MATERIAL SAFETY DATA SHEET

Version 1.0

Revision Date 2021/11

## Epoxy Encapsulation Material for Optical Semiconductor

### CHEMLINQ® TC-8060

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

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

**Product Name** CHEMLINQ® TC-8060  
**Product Use** CHEMLINQ® TC-8060 is developed for optical semiconductor encapsulation  
**Manufactured for CAPLINQ by:** TECORÉ SYNCHEM, INC.  
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#### 2. HAZARDS IDENTIFICATION

##### Health Hazards

Skin Corrosion/ Irritation : Prolonged or repeated skin contact may cause irritation  
Eye Damage/ Irritation : May cause eye irritation

**Environmental Hazards** : No Classification

##### GHS label elements



##### Precautionary Statement

Prevention : Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear protective gloves.  
Wash hands thoroughly after handling

Response : IF ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
If eye irritation persists: Get medical advice/attention.

Storage :

Disposal : Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration
1,3,5-Triglycidyl Isocyanurate	2451-62-9	10-50%
Acid Anhydride	19438-60-9/85-42-7	20-70%

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## 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	:	May produce oxides of carbon if incomplete combustion occurs.
Flash Point	:	No data available
Hazardous combustion products	:	Stable under recommended storage conditions. By combustion, formation of toxic products: carbon, carbon monoxide and carbon dioxide.
Suitable extinguishing media	:	Dry chemical, carbon dioxide, water spray or foam
Protection of Fire-Fighters	:	Wear full protective clothing and self-contained breathing apparatus with full face-piece.
Others	:	

## 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	:	1) When using, workplace ventilation is required-NO SMOKING. 2) Prevention of Fire and Explosion
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### Storage

Requirements for storage areas and containers	:	Keep under 5 °C in covered containers and away from direct sunlight, heat and open flames when not in use.
Storage limits	:	Keep at temperature not exceeding 5 degree C
Further information on storage conditions	:	No information available
Materials to avoid	:	Strong acids, alkali, oxidizing agent
Advice on protection against fire and explosion	:	No information available
Mixed storage advice	:	No information available

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## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

- Ventilation system** : Adequate facilities are required for each mold press to exhaust it's fume and smell.  
The common ventilation system of molding machines is adequate (recommended wind volume higher than 12m<sup>3</sup>/min and wind speed higher than 0.5m/s, static pressure approx. 200mm Aq)
- Respiratory protection** : Half mask respirator with an organic vapor cartridge.
- Eye protection** : Safety goggles.
- Skin and body protection** : Wear suitable protective gloves and clothing.
- Specific hygiene measures** : When using, do not eat or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Physical state form : Powder
- Color : White
- Odor : Odor when molding
- pH : No data available

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

- Boiling point : No data available
- Boiling range : No data available
- Fusing point : 70-110 °C
- Decomposition temperature : Above 200 °C
- Flash point : Above 200 °C
- Autoignition temperature : Above 200 °C
- Explosion properties : No data available
- Vapour pressure : No data available
- Vapour density : No data available
- Density : 1.2-1.4g/cm<sup>3</sup> (Specific Gravity)
- Solubility in Water : Not solve for water
- Solubility : Not miscible in water, miscible in Ketone

## 10. STABILITY AND REACTIVITY

- Stability : Stable under unopened conditions at below 5°C, at least 6 months in a closed container.
- Condition to avoid : Store in high temperature or humidity.
- Materials to avoid : Strong acids, oxidizing agents or hardeners for epoxy resins.
- Hazardous decomposition products : Themal decomposition may form carbon monoxide, carbon dioxide, nitrogen, nitrogen oxide and water vapor.
- Hazardous Polymerization : Will not occur at room temperature and pressure.

## 11. TOXICOLOGICAL INFORMATION

- Acute toxicity : 1,3,5-Triglycidyl Isocyanurate oral LD50(rat)=715mg/Kg  
Acid anhydride Oral Mouse LD50=4040mg/kg

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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	:	NA

## 12. ECOLOGICAL INFORMATION

Ecotoxicity effects	:	1,3,5-Triglycidyl Isocyanurate:LC50 (96h) > 77 mg/L (Fish) (Danio rerio) EC50 (24h) 100 mg/L (Daphnia), EC50 (72h) 29 mg/L (Algae) (Desmodesmus subspicatus) Acid anhydride LC50 (96h) (static) > 1000 mg/L (Fish) (OECD Guideline 203, Danio rerio), EC50 (48h) (static) > 95 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna), EC50 (72h) (static) 70.2 mg/L (Algae) (OECD Guideline 201, Pseudokirchneriella subcapitata)
Biodegradability	:	No data available
Abiotic degradation	:	No data available
Bioaccumulation	:	No data available
Further information on ecology	:	No data available

## 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 of Contaminated Packing	:	Cleaned packaging may be recycled.

## 14. TRANSPORT INFORMATION

UN Classification	:	No Classification
UN Number	:	No
Environmental Hazards	:	ADR: No IMDG/ADN: No IATA: No
UN Proper Shipping Name	:	Epoxy, Tablet
Packing Group Rate	:	Not Applicable

## 15. REGULATORY INFORMATION

The regulatory information listed below is not 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.

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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 : 2021-11

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 only to the specific material(s) designated herein and may not be valid for such material(s) used in combination with any other materials or in any process or if the material is altered or processed, unless specified in the text.