

## Yantai Longcai Advanced Materials Co., Ltd.

## Material Safety Data Sheet

Longcester LC-TGIC

**MSDS****1. Chemical Product and Company Identification****Product Name:** LC-TGIC**Company Name:** Yantai Longcai Advanced Materials Co., Ltd**Address :** No. 18 Hongkong Rd., Haiyang Development Zone,  
Haiyang 265100, China**E-mail:** info@longcester.com**Fax:** +86 535 3306828**Tel.:** +86 535 3306828, 3306639**2. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical nature:** Trifunctional epoxy resin**Substance****CAS-No.** : 2451-62-9**EINECS-NR.** : 219-514-3**Hazardous components****Symbol(s):** R-phrased(s) : TGIC **Concentration [%] <= 100.00****3. HAZARDS IDENTIFICATION**

Toxic by inhalation and if swallowed.

Risk of serious damage to eyes.

May cause sensitization by skin contact.

May cause heritable genetic damage.

Harmful: danger of serious damage to health by prolonged exposure if swallowed.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**4. FIRST AID MEASURES****Inhalation:** Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.**Eye contact:** Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.**Skin contact:** Wash off with soap and plenty of water.

**Ingestion:** Immediately give plenty of water (if possible charcoal slurry). If a person vomits when lying on his back, place him in the recovery position. Do not induce vomiting without medical advice. Oxygen or artificial respiration if needed.

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## 5. FIRE FIGHTING MEASURES

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**Specific Hazards:** No special hazards

**Extinguish Media:** water spray ,CO<sub>2</sub>,foam and chemical powder

**Unsuitable Extinguish Media:** water jet

**Precautions in Connections with Fire:** Do not allow run-off from fighting to enter drains, water courses or surface water. Ensure to apply enough measure to contain contaminated water. Dispose the contaminated water and earth according to the relevant regulation.

**Protective Equipment:** Fire fighters should wear chemical resistant protective clothing and self-contained breathing apparatus.

**Hazardous Combustion Products:** Carbon monoxide, carbon dioxide etc. toxic vapors.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal Protection:** Avoid inhalation of dust; keep away from the source of ignition. Avoid contact with skin and eye.

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## 7. HANDLING AND STORAGE

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**1) Handling Precaution:** Open container with care. Avoid generating dust and inhalation of dust; keep away from the source of ignition. Keep well –ventilation in the working area. Do not eat, drink or smoke in the working area.

**2) Storage Precaution:** Store in a cool, well ventilated place. Remaining unused should not be explored to air. Avoid humidity, like flour, sawdust, this product has the possibility of explosion. There is the risk of explosion with air, so it should avoid producing dust formation. Avoid static and spark in workplace. Before load and unload, the packing should be earthed, or the container for unload should be earthed.

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## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

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- 1) **Maximum Allowable Concentration:** 10mg/m<sup>3</sup>(Permissible concentration-8hr Time Weighted Average)
- 2) **Protective Measure:** Maximum allowable concentration should be tested by suitable analysis equipment.
- 3) **Respirator Protection:** if the ventilation is poor, it should wear self-contained breathing apparatus
- 4) **Hand Protection:** wear suitable glove
- 5) **Skin Protection:** Wear protective clothing buttoned at neck and wrist

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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|-------------------------------------|--|
| 1) Appearance : white powder        | 2) Temperature of melting :88~98°C     |
| 3) Solid content: $\geq 99\%$       | 4) Specific gravity(20°C): 1.35        |
| 5) Thermal decomposition : > 280 °C | 6) Flash point : > 200 °C              |
| 7) Ignition temperature : 460 °C    | 8) Vapour pressure : 0.88 Pa at 140 °C |
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## 10. STABILITY AND REACTIVITY

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**Conditions to Avoid:** Static discharge, spark

**Materials to Avoid:** Strong acid, strong alkali, strong oxidant and water

**Hazardous Decomposition Products:** Oxides of carbon and oxides of phosphor etc. toxic vapors.

**Hazardous Polymerization:** will not occur

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## 11. TOXICOLOGICAL INFORMATION

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**Acute oral toxicity:** LD50 rat Dose: approx. 390 mg/kg Method: OECD 401

**Acute inhalation toxicity:** LC50 mouse Dose: 2,000 mg/m<sup>3</sup>

**Eye irritation:** irritating rabbit Method: Draize-Test

**Skin irritation:** No skin irritation rabbit Method: Draize-Test dermal

**Sensitization:** Causes sensitization. guinea pig Method: Modified maximation test of Magnusson and Kligman dermal

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## 12. ECOLOGICAL INFORMATION

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Elimination information (persistence and degradability)

**Biodegradability:** Result: Not readily biodegradable. 9 - 48% Method: OECD 301 B (Mod. Sturm)

Ecotoxicity effects

**Toxicity to fish:** LC50 Species: Zebrabarbbling Dose: > 77 mg/l Exposure time: 96 h

**Toxicity to daphnia:** EC50 Species: Daphnia magna Straus 1820 Dose: > 100 mg/l Exposure time: 24 h

**Toxicity to algae:** EC50 Species: Scenedesmus subspicatus Dose: 29 mg/l Exposure time: 72 h

**Toxicity to bacteria:** IC50 Species: aerobic bacteria Dose: > 100 mg/l Exposure time: 3 h

Further information on ecology

**Additional ecological:** Avoid subsoil penetration.

**Information Prevent product from entering drains. Do not contaminate surface water.**

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**13. DISPOSAL CONSIDERATIONS**

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**Waste Property:** Industry solid waste

**Waste Disposal:** Chemical residua should be incinerated or disposed according to local regulations.

**Container Disposal:** Contaminated packaging should be disposed of in the same manner as the product. Non –contaminated packaging may be treated like household waste or recycled

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**14. TRANSPORT INFORMATION**

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**Land transport**

ADR: Regulation: Toxic solid, organic, Class of Division: 6.1 UN Number: UN2811 Packing Group III

RID: Regulation: Toxic solid, organic, Class of Division: 6.1 UN Number: UN2811 Packing Group III

**Sea transport**

IMDG: Regulation: Toxic solid, organic, Class of Division: 6.1 UN Number: UN2811 Packing Group III

**Air transport**

IATA-DGR: Regulation: Toxic solid, organic, Class of Division: 6.1 UN Number: UN2811 Packing Group III

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**15. REGULATORY INFORMATION**

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**Labelling according to EEC Directive**

Labelling required

Symbol(s)	: T	Toxic
R-phrase(s)	: R23/25	Toxic by inhalation and if swallowed.
	R41	Risk of serious damage to eyes.
	R43	May cause sensitization by skin contact.
	R46	May cause heritable genetic damage.
	R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed.
	R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S53	Avoid exposure - obtain special instructions before use.
	S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

Exceptional labelling of special preparations : Contains epoxy constituents. See information supplied by the manufacturer. Restricted to professional users.

Hazardous components which must be listed on the label : 1,3,5-tris(oxyranlylmethyl)-1,3,5-triazine  
-2,4,6(1H,3H,5H)-trione (TGIC)  
EC-No.: 219-514-3

National legislation

Notification status

: EINECS yes

Notification number: 219-514-3

: TSCA yes

Notification number: 2451-62-9

: AICS yes

Notification number: 2451-62-9

: DSL yes

Notification number: 2451-62-9

: INV (CN) yes

Notification number: 2451-62-9

: PICCS (PH) yes

Notification number: 2451-62-9

: JEX (JP) yes

Japan: Examined new chemical substances

Notification number: 5-1052

: KECI (KR) yes

Notification number: KE-34923

**16. OTHER INFORMATION**

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Use or store product according to the criteria of industrial hygiene and local regulations This MSDS summarizes our best knowledge of the health and safety hazard information of the product, and it is validated on issue date. If the version is updated in the future, we will not notify again. If further information is required, please visit the Yantai Longcai advanced Materials Co., Ltd. website: [www.longcester.com](http://www.longcester.com).