

SAFETY DATA SHEET

According to GB/T16483-2011

TGIC

Issue date: 16/12/2023

Section 1. Identification

Product identifier: Triglycidyl Isocyanurate(TGIC)
Identification of the product: 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (See section 3)
Recommended use: Curing Agent for Outdoor Powder Coating, Paintings
Recommended restrictions: Not available.
Details of the supplier of the safety data sheet:
Supplier(Manufacturer): Huangshan Jinfeng Industrial Co., Ltd.
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Section 2. Hazards identification



Signal word: Danger.
Emergence: Poisoning if swallowed, caused serious eye damage, may caused skin sensibility, poisoning by inhalation, may caused hereditary defect.
GHS Hazard category: Acute Oral Toxicity, Category 3. Skin Irritation, Category 2. Serious eye damage, Category 2A. Respiratory Sensitizer, Category 1. Skin Sensitizer, Category 1. Specific Target Organ Toxicity - Single Exposure, Category 3.
Hazard Statement: Physical hazard information: Not available
Chemical hazard information: Combustible, burning in fire and high heat and caused toxic gas.
Human hazard information: Poisoning if swallowed, caused serious eye damage, may caused skin sensibility, poisoning by inhalation, may caused hereditary defect
Environmental dangerous information: Harmful to aquatic organisms and with long term lasting effects.
Precautionary statement: Completely cleaning after operation.
Do not eating, drinking or smoking.
Wearing gloves, protective clothing, protective eyewear and mask.
Avoid breathing dust, smoke, gas, steam and spray.
The polluted clothing can not be taken out
Using outdoor or good ventilation

Section 3. Composition/information on ingredients

Chemical Name: Triglycidyl Isocyanurate(TGIC)
Formula: C₁₂H₁₅N₃O₆
CAS NO. 2451-62-9
EC No. 219-514-3
Index No. 615-021-00-6

Component	Classification	concentration
TGIC	Acute toxicity category3; Skin corrosion/irritation Category 3; Serious eye damage/eye irritation Category 1; Skin sensitization Category1;Germ cell mutagenicity Category 1B;Specific target organ toxicity-repeated exposure Category 2;Short-term (acute) aquatic hazard Category 3; Long-term(chronic) aquatic hazard Category 3;H301,H331,H316,H318,H317,H340,H373,H402,H412	≥99.5%

Section 4. First aid measures

Inhalation: If inhaled, remove victim to fresh air. Seek immediate medical attention.

Skin contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Obtain medical attention immediately.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, keeping eyelid open. In case of persistent discomfort, consult an ophthalmologist. Check for and remove any contact lenses. Consult a physician if irritation continues.

Ingestion: Do not induce vomiting. In the unlikely event of ingestion, obtain medical attention immediately.

Most important symptoms and effects, both acute and delayed: Toxic if swallowed . Toxic if inhaled (Dusts) . Skin irritation. May cause an allergic skin reaction. Severe eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects.

Additional information: May aggravate preexisting skin conditions.

Section 5. Fire-fighting measures

Fire Fighting Instructions: Avoid dust generation. Dust may form explosive mixtures with air. Use full protective apparel and self contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Evacuate area of unprotected personnel.

Suitable extinguishing media: Carbon dioxide (CO₂). Dry chemical powder. Foam. Water spray.

Hazardous combustion products: Carbon monoxide (CO). Carbon dioxide (CO₂). Nitrogen oxides(NO_x) and aldehydes

Fire/Explosion Hazards: Dust generated during handling and/or storage can form explosive mixtures in air.

Section 6. Accidental release measures

Personal precautions: Avoid generation of dust. Use proper protective equipment. Ensure adequate ventilation. Eliminate all ignition sources (No smoking, flares, sparks or flames) in the immediate area. Evacuate area and keep unnecessary and unprotected personnel from entering the spill area. Avoid eye contact. Avoid skin contact and inhalation.

Material name: TGIC

Environmental precautions:

Prevent runoff into drains, sewers, and other waterways. Waste water from washing or firefighting should be recovered for proper disposal.

Methods and materials for containment and cleaning up:

Avoid personal contact. Shovel into approved disposal container. Flush contaminated area with water.

Section 7. Handling and storage

Handling procedures:

Avoid dust generation. Avoid breathing dust. Avoid contact with eyes, skin and clothing. Use suitable protective equipment. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use with adequate ventilation. Contaminated work clothing should not be allowed to leave the workplace. Keep container closed when not in use. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Conditions for safe storage:

Keep containers tightly closed when not in use. Store in cool, dry and well ventilated area. Store away from incompatible materials. Store away from all sources of heat and ignition. Storage temperature: between 2 and 30 °C, 20 °C preferably.

Section 8. Exposure controls/personal protection

Engineering controls:

Use local exhaust if general ventilation is inadequate. Supply safety shower and eyewash station near handling area.

Eye/face protection:

Use suitable CSA approved safety glasses, goggles or face shield as indicated by conditions of exposure.

Skin and body protection:

Use protective clothing suited to the conditions of exposure (eg. gloves, boots, apron, full body suit).

Respiratory protection:

Use an approved dust respirator when there is a potential for dust generation or insufficient ventilation.

General Hygiene Considerations:

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking or smoking. When using do not eat, drink or smoke. Remove contaminated or saturated clothing.

Section 9. Physical and chemical properties

Appearance:**Physical state:**

Solid

Form:

Powder or granules

Color:

White

Odor:

Slight

Odour threshold:

Not applicable

PH:

Not applicable

Melting point/Freezing point:

95~125 °C

Initial boiling point and boiling range:

Not applicable

Flash point:

Not applicable

Evaporation rate:

Not applicable

Flammability (solid, gas) :

Not applicable

Material name: TGIC

Upper/lower flammability or explosive : Not applicable

limits:

Vapor pressure: Not available

Vapor density: Not available

Relative density: 1.42

Solubility (H₂O) : <0.1g/100ml

Partition coefficient (n-octanol/water) : Not determined

Auto-ignition temperature: Not determined

Decomposition temperature: Not determined

Molecular weight: Not applicable

Molecular formula: Not applicable

Viscosity: Not applicable

Specific gravity: 1.35-1.55 g/cm³

Explosive properties: Not applicable

Solvents content: Not applicable

Section 10. Stability and reactivity

Stability: Stable under recommended storage and handling conditions. May decompose if heated .

Hazardous reactions: At elevated temperatures, material may undergo a rapid exothermic reaction leading to decomposition.

Conditions to avoid:
Incompatibility: High temperatures. Contact with incompatible materials. Electrostatic charge buildup.
Strong oxidizers. Strong acids. Strong alkali.

Hazardous decomposition products: Not determined

Section 11. Toxicological information

Triglycidyl Isocyanurate

Acute Toxicity (Oral LD₅₀). (Rat): Dose 950 mg/kg bw.

Acute Toxicity (Dermal LD₅₀). (Rat percutaneous): Dose 3100mg/kg bw.

Inhalation LC₅₀.

Skin corrosion/irritation Causes skin irritation . May cause an allergic skinreaction.

Serious eye damage/irritation. Causes serious eye irritation.

Respiratory sensitization. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Ingestion. Not available.

Germ cell mutagenicity May cause genetic defects.

Carcinogenicity of material: No further relevant information available.

Section 12. Ecological information

Aquatic toxicity data:96-hour LD50:188mg/kg

Ecotoxicity: Not determined

Persistence and degradability:Not determined

Potential bioaccumulation:Not determined

Mobility in soil:Not determined

Section 13. Disposal considerations

Waste disposal: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Section 14. Transport information

UN number	UN2811.
Proper shipping name	TOXIC SOLID,ORGANIC,N.O.S.(Triglycidyl Isocyanurate)
Hazard class	6.1
Packing group	III.
Ocean pollution:	Not determined
Specific preventive measures:	Referred to 8.2

Section 15. Regulatory information

Referred to the following law,regulation and standard:

Component:1,3,5-Triglycidyl isocyanurate CAS:2451-62-9

Law of the People's Republic of China on the Prevention and Control of Occupational Diseases: Classification of occupational hazard

Regulations on Safety Management of Hazardous Chemicals: Hazardous chemicals catalogue(2015): Unlisted

List of explosive hazardous chemicals(2017): Unlisted

List of hazardous chemicals under key supervision: the first and second catalogue: Unlisted

Measures for Environmental Management Registration of Hazardous Chemicals: Unlisted

Regulations on the Administration of Narcotic Drugs and Psychotropic Substances: Unlisted

Environmental management of new chemical materials(2013): Listed

Customers attention: The disposal of this product and container shall comply with related regulations

DSL: All ingredients are listed under the General DSL.

United States Inventory (TSCA): All components are listed or exempt

Section 16. Other information

Indication of changes: Classification and marking of commonly used hazardous chemicals(GB13690-2009) listed it as 6.1 <<Regulations on Safety Management of Hazardous Chemicals >> Regulated in safety production,usage,storage,transportation and loadings of hazardous chemicals. New Safety Manual for Dangerous Good

Further information: This information is based upon the present state of our knowledge. This MSDS has been compiled and is solely intended for this product.

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