



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product name: Methylcyclohexene-1,2-dicarboxylic Anhydride (mixture of isomers)
Product code: M0683
Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Responsible Department: Sales Department
Telephone: +86-(0)21-67121386
Fax: +86-(0)21-67121385
e-mail: sales@tcishanghai.com.cn
Revision number: 1

2. HAZARDS IDENTIFICATION

Classification of the GHS

PHYSICAL HAZARDS

Not classified

HEALTH HAZARDS

Acute toxicity (Oral)

Category 5

Acute toxicity (Dermal)

Category 4

Serious eye damage/eye irritation

Category 1

Respiratory sensitization

Category 1

Skin sensitization

Category 1

ENVIRONMENTAL HAZARDS

Not classified

GHS label elements

Pictograms or hazard symbols



Signal word

Danger

Hazard statement

May be harmful if swallowed

Harmful in contact with skin

Causes serious eye damage

May cause allergy or asthma symptoms or breathing difficulties if inhaled

May cause an allergic skin reaction

Precautionary statements

[Prevention]

Avoid breathing.

Contaminated work clothing should not be allowed out of the workplace.

In case of inadequate ventilation wear respiratory protection.

Wear protective gloves and eye/face protection.

[Response]

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF ON SKIN: Gently wash with plenty of soap and water.

If skin irritation or rash occurs: Get medical advice/attention.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER or doctor/physician.

[Disposal]

Dispose of contents/container through a waste management company authorized by the local government

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Component(s):	Methylcyclohexene-1,2-dicarboxylic Anhydride (mixture of isomers)
Percent:	>80.0%(GC)
CAS Number:	11070-44-3
Synonyms:	Methyltetrahydrophthalic Anhydride (mixture of isomers)
Chemical Formula:	C ₉ H ₁₀ O ₃

4. FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Extinguishing media not to be used:	Solid streams of water
Specific methods:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Prevent product from entering drains.
Methods and materials for containment and cleaning up:	Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Handling

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Wash hands and face thoroughly after handling. Use a ventilation, local exhaust if vapor or aerosol will be generated.
Advice on safe handling:	Avoid contact with skin, eyes and clothing.

Storage

Storage conditions:	Keep container tightly closed. Store in a cool and dark place. Store away from incompatible materials such as oxidizing agents.
Packaging material:	Law is followed.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Install a closed system or local exhaust as possible so that workers should not be exposed directly. Also install safety shower and eye bath.

Exposure limits:

Personal protective equipment

Respiratory protection: Vapor respirator. Follow local and national regulations.

Hand protection: Protective gloves.

Eye protection: Safety glasses. A face-shield, if the situation requires.

Skin and body protection: Protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Liquid

Form: clear

Color: Colorless - Slightly pale yellow

Odor: No data available

pH: No data available

Melting point/freezing point: No data available

Boiling Point/Range: 120 °C

Flash Point: 157°C

Explosive limits

Lower: No data available

Upper: No data available

Density: 1.21

Solubility: Soluble in : Water (176.4g/L 20°C) Ethanol Benzene Toluene Acetone Carbon tetrachloride Chloroform Ethyl acetate
Slightly soluble in: Petroleum ether

log Pow = 2.64

10. STABILITY AND REACTIVITY

Stability: Stable under proper conditions.

Reactivity: No special reactivity has been reported.

Incompatible materials: oxidizing agents

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: orl-rat LD50:2140 uL/kg
skn-rbt LD50:1410 uL/kg

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC = No data available

NTP = No data available

Reproductive toxicity: No data available

RTECS Number: TI3325000

12. ECOLOGICAL INFORMATION

Ecotoxicity:

Fish: 96h LC50:>100mg/L (*Oryzias latipes*)

Crustacea: 48h EC50:130mg/L (*Daphnia magna*)

Algae: 72h EC50:75mg/L (*Selenastrum capricornutum*)

Persistence / degradability: 0% (by BOD), 0% (by TOC), 100% (by GC)

Bioaccumulative potential(BCF): No data available

Mobility in soil

12. ECOLOGICAL INFORMATION

log Pow: 2.64
Soil adsorption (Koc): No data available
Henry's Law constant(PaM³/mol): No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

Hazards Class: Does not correspond to the classification standard of the United Nations
UN-No: Not Listed

15. REGULATORY INFORMATION

Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002): Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

16. OTHER INFORMATION

The reference company name of written contents

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.
Address: No.96 Pu Gong Road, Shanghai Chemical Industry Park, Shanghai 201507 China
Department: R&D (Information Management) Department
Telephone: +86-(0)21-67121388*461
Fax: +86-(0)21-67121385

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