

TCI (Shanghai) DEVELOPMENT CO., LTD.

Revision number: 1 Revision date: 09/05/2019 Page 1 of 4

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# SAFETY DATA SHEET

1. IDENTIFICATION

**Product name:** Pyruvic Aldehyde Dimethyl Acetal

Product code: P1264

Company: TCI (Shanghai) DEVELOPMENT CO., LTD.

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Revision number: 1

# 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS Flammable liquids

Flammable liquids Category 3

**HEALTH HAZARDS** 

Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2A
ENVIRONMENTAL HAZARDS Not classified

Label elements

Pictograms or hazard symbols





Signal word Warning

Hazard statements Flammable liquid and vapour

Causes skin irritation

Causes serious eye irritation

**Precautionary statements** 

[Prevention] Keep away from heat, sparks, open flames and hot surfaces. -No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Wash hands and face thoroughly after handling.

Wear protective gloves, eye protection.

[Response] IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice

or attention. Take off contaminated clothing and wash it before reuse.

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 or attention.

In case of fire: Use dry chemical, dry sand or foam to extinguish.

[Storage] Store in a well-ventilated place. Keep cool.

[Disposal] Dispose of contents and container in accordance with local, regional, national

regulations.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Substance

**Components:** Pyruvic Aldehyde Dimethyl Acetal

**Percent:** >97.0%(GC) **CAS RN:** 6342-56-9

Synonyms: 1,1-Dimethoxy-2-propanone , 1,1-Dimethoxyacetone , Methylglyoxal Dimethyl

Acetal

Chemical Formula: C<sub>5</sub>H<sub>10</sub>O<sub>3</sub>

#### 4. FIRST AID MEASURES

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Get medical advice/attention if you feel unwell.

**Skin contact:** Remove/Take off immediately all contaminated clothing. Gently wash with plenty

of soap and water. If skin irritation or rash occurs: Get medical advice/attention.

**Eye contact:** 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.

**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, carbon dioxide.

Unsuitable extinguishing

**Precautions for firefighters:** 

media:

Water (It may scatter and spread fire.)

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: Keep containers cool by spraying with water. Eliminate all ignition

sources if safe to do so.

**Special protective equipment** When extinguishing fire, be sure to wear personal protective equipment for firefighters:

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use extra personal protective equipment (self-contained breathing apparatus). 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 dry sand or inert absorbent before recovering it into an airtight container. 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.

Prevention of secondary

hazards:

Remove all sources of ignition. Fire-extinguishing devices should be prepared in

case of a fire. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

# Precautions for safe handling

**Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective

equipment. Prevent generation of vapour or mist. Keep away from

heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and

Revision date: 09/05/2019 Page 3 of 4

face thoroughly after handling.

Use a closed system if possible. Use a ventilation, local exhaust if vapour or

aerosol will be generated.

Advice on safe handling: Avoid contact with skin, eyes and clothing.

Conditions for safe storage, including any

incompatibilities

**Storage conditions:** Keep container tightly closed. Store in a cool, dark and well-ventilated place.

Store under inert gas.

Store away from incompatible materials such as oxidizing agents.

Light-sensitive, Air-sensitive

Packaging material: Comply with laws.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering controls:** Install a closed system or local exhaust. Also install safety shower and eye bath.

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 Clear

Colorless - Reddish yellow

Odour: No data available PH: No data available Melting point/freezing point: No data available

Boiling point/range: 141°C Flash point: 37°C

Flammability or explosive

limits:

Lower: 2.5% Upper: 12.3% Relative density: 1.00

Solubility(ies):

[Water] No data available [Other solvents] No data available

Autoignition temperature: 285°C

## 10. STABILITY AND REACTIVITY

**Chemical stability:** Stable under proper conditions.

**Possibility of hazardous** No special reactivity has been reported.

reactions:

Conditions to avoid: Spark, Open flame, Static discharge

Incompatible materials: Oxidizing agents

Hazardous decomposition Carbon dioxide, Carbon monoxide

products:

# 11. TOXICOLOGICAL INFORMATION

Acute Toxicity:
Skin corrosion/irritation:
No data available
No data available
No data available

damage/irritation:

Germ cell mutagenicity: No data available

Carcinogenicity:

IARC = No data available
NTP = No data available
Reproductive toxicity: No data available

#### 12. ECOLOGICAL INFORMATION

**Ecotoxicity:** 

Fish:

Crustacea:

Algae:

Persistence / degradability:

Bioaccumulative

No data available
No data available
No data available
No data available

potential(BCF): Mobility in soil

Log Pow:
Soil adsorption (Koc):
Henry's Law (PaM ³/mol):
No data available
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: 3: Flammable liquid.

**UN-No:** 1993

**Proper shipping name:** Flammable liquid, n.o.s.

Packing group:

## 15. REGULATORY INFORMATION

Regulations on the Control over Safety of Dangerous Chemicals (State Council announces on January 26, 2002 and revised on February 16,2011): 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

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**Department:** Technical Information Department

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disposal. Safe usage conditions shall be set up on each user's own responsibility.

This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are

familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and