Glycerol Formal (mixture of 1,3-Dioxan-5-ol and 4-Hydroxymethyldioxolane)

Revision number: 1

Revision date: 11/30/2010

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# SAFETY DATA SHEET

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

**Product name:** Glycerol Formal (mixture of 1,3-Dioxan-5-ol and 4-Hydroxymethyldioxolane)

Product code: G0244

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

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Revision number: 1

### 2. HAZARDS IDENTIFICATION

Classification of the GHS PHYSICAL HAZARDS

Flammable liquids Category 4
HEALTH HAZARDS Not classified
ENVIRONMENTAL HAZARDS Not classified

**GHS** label elements

Pictograms or hazard symbols None Signal word Warning

Hazard statement Combustible liquid

**Precautionary statements** 

[Prevention] Keep away from flames and hot surfaces.

Wear protective gloves and eye/face protection.

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

[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):** Glycerol Formal (mixture of 1,3-Dioxan-5-ol and 4-Hydroxymethyldioxolane)

 $\begin{array}{lll} \textbf{Percent:} & > 98.0\% (GC) \\ \textbf{CAS Number:} & 86687\text{-}05\text{-}0 \\ \textbf{Chemical Formula:} & C_4H_8O_3 \\ \end{array}$ 

## 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. Rinse skin with

water/shower. 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 Dry chemical, foam, water spray, carbon dioxide.

media:

Extinguishing media not to Solid streams of water

be used:

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

When extinguishing fire, be sure to wear personal protective equipment.

equipment for firefighters:

### 6. ACCIDENTAL RELEASE MEASURES

Personal precautions. Use personal protective equipment. Keep people away from and upwind of spill/leak. protective equipment and Ensure adequate ventilation. Entry to non-involved personnel should be controlled

emergency procedures: around the leakage area by roping off, etc.

Environmental precautions: Prevent product from entering drains.

Methods and materials for

containment and cleaning

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. 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

Handling

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

> Prevent generation of vapor or mist. Keep away from flames and hot surfaces. Take measures to prevent the build up of electrostatic charge. Use explosion-proof

equipment. Wash hands and face thoroughly after handling.

Use a closed system, ventilation.

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

Storage

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

> Store under inert gas. Protect from moisture.

Store away from incompatible materials such as oxidizing agents.

Packaging material: Law is followed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Install a closed system or local exhaust as possible so that workers should not be **Engineering controls:** 

exposed directly. Also install safety shower and eye bath.

Personal protective equipment

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

Protective gloves. Hand protection:

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 - Very pale yellow

Odor: No data available No data available Melting point/freezing point: No data available **Boiling Point/Range:** 97 °C/2.7kPa

Flash Point: 76°C

# 9. PHYSICAL AND CHEMICAL PROPERTIES

**Explosive limits** 

Lower: No data available Upper: No data available

Density: 1.22

Solubility: No data available

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under proper conditions.

**Reactivity:** No special reactivity has been reported.

Conditions to avoid: Hygroscopic oxidizing agents

Hazardous Decomposition Carbon monoxide, Carbon dioxide

**Products:** 

## 11. TOXICOLOGICAL INFORMATION

Acute Toxicity: ipr-mus LD50:7500 mg/kg

ipr-rat LD50:9500 mg/kg orl-mus LD50:8 g/kg

Skin corrosion/irritation: No data available
Serious eve 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: No data available
Crustacea: No data available
Algae: No data available
Persistence / degradability: No data available
Bioaccumulative No data available

potential(BCF): Mobillity in soil

log Pow:No data availableSoil adsorption (Koc):No data availableHenry's LawNo data available

constant(PaM³/mol):

# 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

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