

# SAFETY DATA SHEET

## 1. IDENTIFICATION

**Product name:** 1,2-Propanediol  
**Company:** ROSS CHEM COMPANY LIMITED  
**Address:** No. 227.NanYi Road, Dongying City, Shandong Province, China 257091  
**Responsible Department:** Sales Department  
**Telephone:** +86 546 8275057  
**Fax:** +86 546 8275058  
**e-mail:** info@rosschem.com  
**Emergency telephone:** +86 546 8275057  
**Revision number:** 1

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

**PHYSICAL HAZARDS** Not classified  
**HEALTH HAZARDS**  
    **Skin corrosion/irritation** Category 3  
    **Serious eye damage/eye irritation** Category 2B  
**ENVIRONMENTAL HAZARDS** Not classified

### Label elements

**Pictograms or hazard symbols** None  
**Signal word** Warning  
**Hazard statements** Causes mild skin irritation  
Causes eye irritation

### Precautionary statements

**[Prevention]** Wash hands and face thoroughly after handling.  
**[Response]** If skin irritation occurs: Get medical advice or attention.  
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.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/mixture:** Substance  
**Components:** 1,2-Propanediol  
**Percent:** >99.0%(GC)  
**CAS RN:** 57-55-6  
**Synonyms:** 1,2-Dihydroxypropane , Propylene Glycol  
**Chemical Formula:** C<sub>3</sub>H<sub>8</sub>O<sub>2</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. 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 media:** Dry chemical, foam, water in large amounts, carbon dioxide.

**Precautions for firefighters:** 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

### Precautions for safe handling

**Technical measures:** Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Wash hands and face thoroughly after handling.

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 and dark place. Store away from incompatible materials such as oxidizing agents.

**Packaging material:** Comply with laws.

## 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.

### **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                        |
| Colour:                           | Colorless - Almost colorless |
| Odour:                            | No data available            |
| pH:                               | No data available            |
| Melting point/freezing point:     | -59°C                        |
| Boiling point/range:              | 188°C                        |
| Flash point:                      | 107°C                        |
| Flammability or explosive limits: |                              |
| Lower:                            | 2.6%                         |
| Upper:                            | 12.6%                        |
| Vapour pressure:                  | 10.6Pa/20°C                  |
| Relative density:                 | 1.04                         |
| Solubility(ies):                  |                              |
| [Water]                           | Miscible                     |
| [Other solvents]                  |                              |
| Miscible:                         | Acetone, Chloroform          |
| Soluble:                          | Ether, Benzene               |
| Log Pow:                          | -0.92                        |
| Autoignition temperature:         | 371°C                        |
| Dynamic Viscosity:                | 19.9mPa·s (40°C)             |
| Kinematic viscosity:              | 20mm <sup>2</sup> /s (40°C)  |

## 10. STABILITY AND REACTIVITY

|                                     |  |
|-------------------------------------|--|
| Chemical stability:                 | Stable under proper conditions.          |
| Possibility of hazardous reactions: | No special reactivity has been reported. |
| Incompatible materials:             | Oxidizing agents                         |
| Hazardous decomposition products:   | Carbon dioxide, Carbon monoxide          |

## 11. TOXICOLOGICAL INFORMATION

|                                |   |
|--------------------------------|---|
| Acute Toxicity:                | ori-rat LD50:20 g/kg<br>skn-rbt LD50:20800 mg/kg<br>ipr-rat LD50:6660 mg/kg |
| Skin corrosion/irritation:     | skn-hmn 104 mg/3D-I MOD<br>skn-hmn 500 mg/7D MLD                            |
| Serious eye damage/irritation: | eye-rbt 100 mg MLD  |
| Germ cell mutagenicity:        | cyt-mus-scu 8000 mg/kg<br>dni-mus-scu 8000 mg/kg                            |
| Carcinogenicity:               |   |
| IARC =                         | No data available   |
| NTP =                          | No data available   |
| Reproductive toxicity:         | ipr-mus TDLo:100 mg/kg (15D preg)   |
| RTECS Number:                  | TY2000000   |

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity:

|   |   |
|---|---|
| <b>Fish:</b>                              | 96h LC50:>100 mg/L (Oryzias latipes)            |
| <b>Crustacea:</b>                         | 48h EC50:>1000 mg/L (Daphnia magna)             |
| <b>Algae:</b>                             | 72h EC50:>1000 mg/L (Selenastrum capricornutum) |
| <b>Persistence / degradability:</b>       | 90 % (by BOD) , 99 % (by TOC) , 99 % (by GC)    |
| <b>Bioaccumulative potential(BCF):</b>    | 3   |
| <b>Mobility in soil</b>                   |   |
| <b>Log Pow:</b>                           | -0.92   |
| <b>Soil adsorption (Koc):</b>             | 1   |
| <b>Henry's Law (PaM<sup>3</sup>/mol):</b> | 1.3 x 10 <sup>-3</sup>                          |

## 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

|                       |  |
|-----------------------|--|
| <b>Hazards Class:</b> | Does not correspond to the classification standard of the United Nations |
| <b>UN-No:</b>         | Not listed   |

## 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

|                             |  |
|-----------------------------|--|
| <b>Company:</b>             | ROSS CHEM COMPANY LIMITED  |
| <b>Address:</b>             | No. 227.NanYi Road, Dongying City, Shandong Province, China 257091 |
| <b>Department:</b>          | Technical Information Department                                   |
| <b>Emergency telephone:</b> | +86 546 8275057  |
| <b>Fax:</b>                 | +86 546 8275058  |

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