

# SAFETY DATA SHEET

According to 1907/2006/EC, article 31 (REACH) and Regulation (EU) No. 2020/878

Creation date: 20230821

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SDS No: 2023081501

Version: 1.0

## Propane-1,2-diol

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

#### 1.1 Product identifier

Product name	Propane-1,2-diol
Synonyms, trade names	Propane-1,2-diol
REGISTRATION NO.	-

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	It is used to produce antifreeze, heat exchanger resin and diol derivatives, as well as solvent, plasticizer and wetting agent.
Uses advised against	No information available.

#### 1.3 Details of the supplier of the safety data sheet

##### 1.3.1 Details of the Manufacturer

Name	Shinghwa AmpereX Technology (Dongying) Co.,Ltd.
Address	No. 198, Tongxing Road, Kenli District, Dongying, Shandong, China
Postal code	257500
Telephone	+86 0546-2169100
Fax	+86 0546-2168118
E-mail	shidashenghua@sinodmc.com

#### 1.4 Emergency telephone

Emergency telephone	+86 0546-2169110
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### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of substance or mixture according to Regulation (EC) 1272/2008 [CLP]

Not classified.
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#### 2.2 Label elements according to Regulation (EC) 1272/2008 [CLP]

Pictogram(s)	No pictogram
Signal word	No signal word

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**Hazard statements**

No information available.

**Precautionary statements****Prevention**

No information available.

**Response**

No information available.

**Storage**

No information available.

**Disposal**

No information available.

**Supplemental Hazard information (EU)**

Not applicable.

**2.3 Other hazards**

Criteria for the assessment of substances as PBT and vPvB in Annex XIII to Regulation EC No 1907/2006 (REACH): the substance does not meet the criteria for classification as PBT and vPvB substances. The substance is not listed in Annex XIV to Regulation EC No 1907/2006 (REACH) or in the candidate list of SVHC. It has no properties affecting the endocrine system.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substance**

Name	Product designation	Content (weight percentage, %)	Classification according to Regulation (EC) 1272/2008 [CLP]	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Propane-1,2-diol	CAS nr: 57-55-6 EC nr: 200-338-0	99.94	Not classified.	/
Water	CAS nr: 7732-18-5 EC nr: 231-791-2	0.05	Not classified.	/
1,1'-oxydipropan-2-ol	CAS nr: 110-98-5 EC nr: 203-821-4	0.01	Not classified.	/

**3.2 Mixture**

Not applicable.

### 4. FIRST-AID MEASURES

**4.1 Description of first aid measures**

<b>General advice</b>	Always observe self protection methods. Move out of dangerous area. Remove contaminated
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	shoes and clothing. Show this material safety data sheet to the doctor in attendance.
<b>Eye contact</b>	Flush eyes with water thoroughly and continuously for 15 minutes. Remove contact lenses, if present and easy to do. If irritation persists get medical advice/attention.
<b>Skin contact</b>	Wash skin with plenty of water.
<b>Ingestion</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use.
<b>Inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Avoid inhalation of hot vapors or extremely high concentrations of aerosols. Remove to fresh air. Consult a physician if necessary.

#### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

<b>Suitable</b>	SMALL FIRE: Use dry chemicals, CO <sub>2</sub> , water spray or alcohol-resistant foam. LARGE FIRE: Use water spray, water fog or alcohol-resistant foam.
<b>Unsuitable</b>	Do not use solid water stream.

### 5.2 Special hazards arising from the substances or mixture

Water may cause splattering. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

### 5.3 Advice for firefighters

Wear a self-contained breathing apparatus.

Contaminated extinguishing water must be disposed of in accordance with official regulations.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

**6.1.1 For non-emergency personnel:** Contaminated surfaces may be slippery. Avoid contact with skin and eyes. See relevant section for Personal Protective Equipment. Keep out of reach of children.

**6.1.2 For emergency responders:** Keep personnel out of low areas. Use appropriate safety equipment.

### 6.2 Environmental precautions

Try to prevent the material from entering drains or water courses.

### 6.3 Methods and materials for containment and cleaning up

Absorb spilled material in dry sand or inert absorbent. 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. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### 6.4 Reference to other sections

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Section 8 (protective equipment), section 13 (disposal instructions)

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Use personal protective equipment recommended in SDS.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed. Keep containers in a dry, cool and well-ventilated place. Keep away from heat/sparks/open flames/hot surfaces. Store away from incompatible materials and foodstuff containers.

### 7.3 Special end use(s)

No information available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters


#### Occupational Exposure limit values

Component	Country	Occupational exposure limits	
		Eight hours	Short term
Propane-1,2-diol, total vapour and particulates	Ireland	150 ppm, 470 mg/m <sup>3</sup>	-
Water	-	-	-
1,1'-oxydipropan-2-ol	-	-	-

### 8.2 Appropriate engineering controls

General ventilation is recommended. The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

### 8.3 Individual protection measures, such as personal protective equipment (PPE)

Symbols of personal protective equipment	
	
<b>Hand protection</b>	When handling this product, the use of chemical gloves is recommended. The choice of work glove depends on work conditions and what chemicals are handled, but we have positive experience under light handling conditions using gloves made from PVC. Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers. The applicable European standard can be found in EN 374.
<b>Eye protection</b>	When handling this product, the use of safety glasses with side shields is recommended. The applicable European standard can be found in EN 166.

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<b>Hygiene measures</b>	Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.
<b>Skin protection</b>	When handling this product, the use of overalls is recommended. The applicable European standard can be found in EN ISO 20345.
<b>Respiratory</b>	When required by use conditions, wear an approved respirator. A suitable filter material depends on the amount and type of chemicals being handled. Consider the use of filter type: A-P The applicable European standard can be found in EN 140, EN 137, EN 143 and EN 14387. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
<b>Thermal hazard</b>	No information available

#### 8.4 Restrictions environmental exposure

Avoid release to the environment.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Liquid
<b>Color</b>	Colorless
<b>Odour</b>	No information available
<b>Odour threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting/freezing point</b>	- 59 °C
<b>Initial boiling point and boiling range</b>	187.2 °C
<b>Flash point</b>	99 °C
<b>Evaporation rate</b>	No information available
<b>Flammability</b>	Not flammable
<b>Lower and upper explosion limit/flammability limit</b>	Upper limit: 12.6; Lower limit: 2.6
<b>Vapour pressure</b>	No information available
<b>Vapour density(air=1)</b>	No information available
<b>Density(water=1)</b>	1.04 g/cm <sup>3</sup> (25 °C)
<b>Bulk density</b>	No information available
<b>Solubility(water)</b>	No information available
<b>Partition coefficient n-octanol/water</b>	Log <sub>ow</sub> (Log <sub>Pow</sub> ) = - 1.07 (20 °C)
<b>Auto-ignition temperature</b>	371 °C
<b>Decomposition temperature</b>	No information available
<b>Viscosity</b>	No information available
<b>Explosive properties</b>	Non explosive
<b>Oxidising properties</b>	No oxidising properties
<b>Molecular mass:</b>	76.094

### 9.2 Other information

#### 9.2.1. Information with regard to physical hazard classes

No information available.

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**9.2.2. Other safety characteristics**

No information available.

**10. STABILITY AND REACTIVITY****10.1 Reactive**

Contact with incompatible substances can cause decomposition or other chemical reactions.

**10.2 Chemical stability**

Stable under proper operation and storage conditions.

**10.3 Possibility of hazardous reactions**

In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.

**10.4 Conditions to avoid**

Incompatible materials, heat, flame and spark.

**10.5 Incompatible materials**

Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

**10.6 Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. TOXICOLOGICAL INFORMATION****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity**

Component	Oral	Dermal	Inhalation
Propane-1,2-diol	Rat, LD <sub>50</sub> = 22000 mg/kg bw	Rabbit, LD <sub>50</sub> > 2000 mg/kg bw	Rabbit, LC <sub>50</sub> > 317042 mg/m <sup>3</sup> air (2h)

**Carcinogenicity**

Component	IARC	NTP
Propane-1,2-diol	Not listed	Not listed

**Other**

Endpoint	Component	Toxicological Information
<b>Skin corrosion/irritation</b>	Propane-1,2-diol	Not irritating
<b>Serious eye damage/irritation</b>	Propane-1,2-diol	Not irritating
<b>Skin sensitisation</b>	Propane-1,2-diol	Not sensitising
<b>Respiratory sensitization</b>	Propane-1,2-diol	No information available
<b>Reproductive toxicity</b>	Propane-1,2-diol	P0: Mouse, NOAEL = 10100 mg/kg bw/day (actual dose received) (toxicity) F1: Mouse, NOAEL = 10100 mg/kg bw/day (actual dose received) (fertility) F2: Mouse, NOAEL = 10100 mg/kg bw/day (actual dose received)

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		(developmental effects)
<b>STOT-single exposure</b>	Propane-1,2-diol	No information available
<b>STOT-repeated exposure</b>	Propane-1,2-diol	No information available
<b>Aspiration hazard</b>	Propane-1,2-diol	No information available
<b>Germ cell mutagenicity</b>	Propane-1,2-diol	Negative (vivo/vitro)

### 11.2 Information on other hazards

No information available.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Component	Fish	Aquatic invertebrates	Aquatic algae and cyanobacteria
Propane-1,2-diol	Acute: Oncorhynchus mykiss, LC <sub>50</sub> = 40613 mg/L (96h) Long term: No information available	Acute: Ceriodaphnia dubia, LC <sub>50</sub> = 18340 mg/L (48h) Long term: Ceriodaphnia sp., NOEC = 13020 mg/L (7d)	Raphidocelis subcapitata, EC <sub>50</sub> = 24200 mg/L (72h)

### 12.2 Persistence and degradability

Propane-1,2-diol      Readily biodegradable in water.

### 12.3 Bioaccumulative potential

Propane-1,2-diol      BCF (aquatic species): 0.09

### 12.4 Mobility in soil

Propane-1,2-diol      K<sub>oc</sub> at 20 °C = 2.9

### 12.5 Results of PBT and vPvB assessment

The substance is not PBT / vPvB

### 12.6 Endocrine disrupting properties

No properties affecting the endocrine system.

### 12.7 Other adverse effects

No information available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Product: Contact an approved waste hauler for disposal of contaminated recovered material. Any chemical waste is a potential environmental pollutant and is NOT suitable for disposal via ground, municipal sewers, drains, natural streams or rivers. Dispose of wastes in an approved incinerator or waste treatment/disposal site, in accordance with all applicable regulations. Do not dispose of wastes in local sewer or with normal garbage. Contaminated packaging: Empty drums should be taken for recycling, recovery, or disposal through a suitably qualified or licensed contractor.

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## 14. TRANSPORT INFORMATION

<b>Transport pictograph</b>	No information available
<b>Transport</b>	<b>Classification</b>
<b>Land transport (ADR/RID)</b>	
<b>UN Number</b>	Not classified as dangerous goods
<b>UN proper shipping name</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	No information available
<b>Classification code</b>	No information available
<b>Marine transport (IMDG)</b>	
<b>UN Number</b>	Not classified as dangerous goods
<b>UN proper shipping name</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	No information available
<b>EMS No.</b>	No information available
<b>Remarks</b>	No information available
<b>Air transport (ICAO/IATA)</b>	
<b>UN Number</b>	Not classified as dangerous goods
<b>UN proper shipping name</b>	No information available
<b>Transport hazard class(es)</b>	No information available
<b>Packing group</b>	No information available
<b>Classification code</b>	No information available
<b>Environmental hazards</b>	No information available
<b>Special precautions for user</b>	No information available

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### International Chemical Inventory

Component	EINECS	TSCA	DSL/NDSL	IECSC	NZIoC	PICCS	KECI	AICS
Propane-1,2-diol	Listed	Listed	Listed/Not listed	Listed	Listed	Listed	Listed	Listed
Water	Listed	Listed	Listed/Not listed	Listed	Listed	Listed	Listed	Listed
1,1'-oxydipropan-2-ol	Listed	Listed	Listed/Not listed	Listed	Listed	Listed	Listed	Listed

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

#### Note

<b>EINECS</b>	European Inventory of Existing Commercial Chemical Substances.
<b>TSCA</b>	United States Toxic Substances Control Act Inventory.
<b>DSL/NDSL</b>	Canadian Domestic/Non-domestic Substances List.
<b>IECSC</b>	Inventory of Existing Chemical Substances in China
<b>NZIoC</b>	New Zealand Inventory of Chemicals.
<b>PICCS</b>	Philippines Inventory of Chemicals and Chemical Substances.

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<b>KECI</b>	Korea Existing Chemicals Inventory
<b>AICS</b>	Australia Inventory of Chemical Substances.

## 16. OTHER INFORMATION

<b>Issued By</b>	SHINGHWA AMPEREX TECHNOLOGY (DONGYING) Co., Ltd.
<b>Revision Date</b>	2023/08/16
<b>Reason for modification</b>	-

### REFERENCE

- [1] IPCS - The International Chemical Safety Cards (ICSC),  
website:<http://www.ilo.org/dyn/icsc/showcard.home>
- [2] HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- [3] IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- [4] eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:  
<https://www.echemportal.org/echemportal/substance-search>
- [5] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- [6] US National Institutes of Health: Pubchem, website: <https://pubchem.ncbi.nlm.nih.gov/>
- [7] ChemIDplus, website: <https://www.nlm.nih.gov/databases/download/chemidplus.html>
- [8] ERG - Emergency Response Guidebook by U.S. Department of Transportation, website:  
<http://www.phmsa.dot.gov/hazmat/library/erg>
- [9] Germany GESTIS-database on hazard substance, website: <https://gestis-database.dguv.de/>
- [10] ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

### ABBREVIATIONS AND ACRONYMS

CAS: Chemical Abstracts Service  
 ADR: Agreement concerning the International Carriage of Dangerous Goods by Road  
 RID: Regulation concerning the International Carriage of Dangerous Goods by Rail  
 IMDG: International Maritime Dangerous Goods  
 IATA: International Air Transportation Association  
 TWA: Time Weighted Average  
 STEL: Short term exposure limit  
 LC<sub>50</sub>: Lethal Concentration 50%  
 LD<sub>50</sub>: Lethal Dose 50%  
 EC<sub>50</sub>: Effective Concentration 50%

### STATEMENT

This safety technical specification (SDS) is prepared according to Regulation (EC) No 1907/2006 and Regulation (EU) No 2020/878. The data collected are from authoritative international databases and provided by enterprises themselves. Other information is based on our current state of knowledge. We try to make sure all the information is correct. However, due to the diversity of information sources and the limitations of our knowledge, this document is for user reference only. Users should make independent judgments about the suitability of this information for their specific purposes. We are not liable for any loss, damage or expense arising from or in connection with the handling, storage, use or disposal of the Products.

\*\*\*END OF THE BODY\*\*\*

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