

# Material Safety Data Sheet

## 1,2-Propanediol

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Chemical product name:** 1,2-Propanediol

**Common chemical name:** Propylene glycol  
1,2-Propanediol

**Company information:** Choice Chemicals Ltd.  
Centre of City, No.235 Wuyi Road, Furong District,  
Changsha, Hunan 410011, P.R.China  
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**24 hr Emergency number:** 0086 13298652316

### SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS

**Synonyms :** Propylene glycol  
1,2-Propanediol

Formula : C<sub>3</sub>H<sub>8</sub>O<sub>2</sub>  
Molecular Weight : 76,09 g/mol  
CAS-No. : 57-55-6  
EC-No. : 200-338-0

No components need to be disclosed according to the applicable regulations.

### SECTION 3 - HAZARDS IDENTIFICATION

#### Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.  
This substance is not classified as dangerous according to Directive 67/548/EEC.

#### Label elements:

The product does not need to be labelled in accordance with EC directives or respective national laws.

**Other hazards** - none.

#### SECTION 4 - FIRST AID MEASURE

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

**Indication of any immediate medical attention and special treatment needed:**

no data available

#### SECTION 5 - EXTINGUISHING MEDIA

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture**

no data available.

**Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**Further information**

no data available.

#### SECTION 6 - ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

**SECTION 7 - HANDLING AND STORAGE**

**Precautions:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.

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

**Specific end use(s):**

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

**SECTION 8 - EXPOSURE CONTROLS, PERSONAL, PROTECTION****Control parameters:**

Components with workplace control parameters

**Exposure controls:****Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Personal protective equipment****Eye/face protection**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure:**

Do not let product enter drains

**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**                      Form: liquid, clear, viscous  
   Colour: colourless

**Odor:** no data available.

**Odour Threshold:** no data available

**PH :** no data available

**Melting Point:** Melting point/range: -60 °C - lit.

**Initial boiling point and boiling range:** 187 °C - lit.

**Flash point:** 103 °C - closed cup

**Evaporation rate:** no data available

**Flammability (solid, gas):** no data available

**Upper/lower flammability or explosive limits:** Upper explosion limit: 12,5 %(V)  
Lower explosion limit: 2,6 %(V)

**Vapour pressure:** 0,11 hPa at 20 °C

**Vapour density:** 2,63 - (Air = 1.0)

**Relative density:** 1,036 g/cm<sup>3</sup> at 25 °C

**Water solubility:** no data available

**Partition coefficient: noctanol/water:** no data available

**Autoignition temperature:** no data available

**Decomposition temperature:** no data available

**Viscosity:** no data available

**Explosive properties:** no data available

**Oxidizing properties:** no data available

**Other safety information:** Relative vapour density 2,63 - (Air = 1.0)

## SECTION 10 - STABILITY AND REACTIVITY DATA

**Reactivity:** no data available.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** no data available.

**Conditions to avoid:** no data available.

**Incompatible materials:**

Acid chlorides, Acid anhydrides, Oxidizing agents, Chloroformates, Reducing agents.

**Hazardous decomposition products:** Other decomposition products - no data available.  
In the event of fire: see section 5

## SECTION 11 - TOXICOLOGICAL INFORMATION

**Acute toxicity:**

LD50 Oral - rat - 20.000 mg/kg

LD50 Dermal - rabbit - 20.800 mg/kg

LD50 Intramuscular - rat - 14 g/kg

LD50 Intravenous - dog - 26 g/kg

LD50 Intraperitoneal - rat - 6.660 mg/kg

LD50 Subcutaneous - rat - 22.500 mg/kg

LD50 Intravenous - rat - 6.423 mg/kg

LD50 Intraperitoneal - mouse - 9.718 mg/kg

Remarks: Lungs, Thorax, or Respiration: Chronic pulmonary edema. Kidney, Ureter, Bladder: Changes in both tubules and glomeruli. Blood: Changes in spleen.

LD50 Subcutaneous - mouse - 17.370 mg/kg

Remarks: Behavioral: Change in motor activity (specific assay). Behavioral: Muscle contraction or spasticity.

Cyanosis

LD50 Intravenous - mouse - 6.630 mg/kg.

LD50 Intravenous - rabbit - 6.500 mg/kg.

**Skin corrosion/irritation:**

Skin - Human

Result: Mild skin irritation - 7 d

**Serious eye damage/eye irritation:**

Eyes - rabbit  
Result: Mild eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** no data available.

**Carcinogenicity:**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** no data available.

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

**Additional Information:**

RTECS: TY2000000

Gastrointestinal disturbance, Nausea, Headache, Vomiting, Central nervous system depression

## SECTION 12 - ECOLOGICAL INFORMATION

**Toxicity:**

Toxicity to fish: mortality NOEC - Pimephales promelas (fathead minnow) - 52.930 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates: mortality NOEC - Daphnia - 13.020 mg/l - 48 h  
EC50 - Daphnia magna (Water flea) - > 10.000 mg/l - 48 h

**Persistence and degradability:** no data available.

**Bioaccumulative potential:** no data available.

**Mobility in soil:** no data available.

**Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

**Other adverse effects:**

no data available.

## SECTION 13 - DISPOSAL CONSIDERATIONS

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**Waste treatment methods:**

**Product:**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging:** Dispose of as unused product.

## SECTION 14 - TRANSPORT INFORMATION

**UN number:**

ADR/RID: -                      IMDG: -                      IATA: -

**UN proper shipping name:**

ADR/RID: Not dangerous goods.

IMDG: Not dangerous goods.

IATA: Not dangerous goods.

**Transport hazard class(es):**

ADR/RID: -                      IMDG: -                      IATA: -

**Packaging group:**

ADR/RID: -                      IMDG: -                      IATA: -

**Environmental hazards:**

ADR/RID: no                      IMDG Marine pollutant: no                      IATA: no

**Special precautions for user:**

no data available

## SECTION 15 - REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture:** no data available

**Chemical Safety Assessment:** For this product a chemical safety assessment was not carried out.

## SECTION 16 - OTHER INFORMATION

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