

## MATERIAL SAFETY DATA SHEET

### 1. CHEMICAL PRODUCT IDENTIFICATION

Material Identification:	SALIDIOL G
CAS No.	504-63-2
Formula	C3H8O2
Molecular Weight	76f.09
CAS Name	1,3-Propanediol

### 2. COMPOSITON / INFORMATION ON INGREDIENTS

1,3-Propanediol CAS No. 504-63-2 >99.5%

### 3. HAZARDS IDENTIFICATION

#### Potential Health Effects

SALIDIOL G is highly hygroscopic and may cause skin irritation in its pure form. A 75% solution of SALIDIOL G did not cause dermal irritation in a human skin (Patch test).

No adverse effects are expected from incidental dye contact with 1,3-Propanediol

#### Carcinogenicity information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

### 4. FIRST AID MEASURES

#### General information

Not expected to be a health hazard when used under normal conditions.

#### Inhalation

If inhaled, remove to fresh air, if not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

#### Skin contact

Flush skin with water after contact. Wash contaminated clothing before reuse.

#### Eye contact

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

#### Ingestion

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician. Notes to physicians: No antidote or specific regimes know. Use supportive measures as needed.

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## 5. FIRE AND EXPLOSION INFORMATION

Flash point: 131 C (268 F)  
Method: Cleveland Opn Cup -COC

This is material will burn.  
It is not an explosion hazard.  
Extinguishing Media: Water, Foam, Dry chemical, CO2, Water Spray.

### Special firefighting procedures:

Exposure to decomposition products may be a hazard to health.  
Evacuate personnel to a safe area.  
Keep personnel removed and upwind of fire.  
Wear self-contained breathing apparatus.  
Avoid breathing vapor.  
Use water spray to knock down vapor.

## 6. ACCIDENTAL RELEASE MEASURES

### Safeguards (Personnel)

Note: Review firefighting measures and handling (Personnel) sections before proceeding with Clean-up. Use appropriate personal protective equipment during clean –up.

### Initial containment

Dike spill. Prevent material from entering sewers, waterways or low areas.

### Spill Clean up

Soak up with sawdust, sand, oil dry or other absorbent material.

### Accidental Release measures

Ventilate area and wash spill site after material pickup is complete

## 7. STORAGE AND HANDLING

Keep container tightly closed. Keep away from heat, sparks and flames, store in cool, dry place.  
Avoid breathing vapours or mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling.  
Avoid prolonged or repeated exposure

## 8. PERSONAL PROTECTION INFORMATION

### Engineering controls:

Keep container tightly closed. Keep away from heat and open flame. Store in a cool dry place.

Protection levels and types controls will vary depending on potential exposure conditions. Adequate ventilation should be provided to control airborne concentrations. Input from the data sheet should be used as input to a risk assessment of local conditions to help determine appropriate controls for safe handling, storage and disposal of this material.

# Essentially Natural

Products with purpose.

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## Eye / Face Protection:

Wear safety glasses with side shields.

## Respirator:

Where there is potential for airborne exposure, wear appropriate NIOSH approved respiratory protection.

## Protective clothing:

Where there is potential for skin contact have available, and wear as appropriate, impervious gloves, apron, pants, and jacket.

## Exposure Limits

SALIDIOL G: 5 mg/m<sup>3</sup>, 8 & 12 Hr. TWA

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling point	214 C (417 F)
Melting point	-24 C (-11 F)
Vapor pressure (mm Hg)	0.08 mm Hg @ 20 C (68 F)
Solubility in water	Miscible with water
pH	Neutral
Colour	Colourless
Form	Liquid
Specific gravity	1.053
Evaporation rate	<1 (Butyl Acetate = 1.0)

## 10. STABILITY AND REACTIVITY

### Chemical Stability:

Stable at normal temperatures and storage conditions. Incompatibility with other materials. Incompatible or can react with strong oxidizers, strong acids.

### Decomposition:

Hazardous decomposition products are not expected to form during normal storage.

### Polymerization:

Not expected to occur under normal storage conditions.

## 11. TOXICOLOGICAL INFORMATION

### Animal Data

Basis for Assessment: information given is based on test data a similar product.

1,3-Propanediol Oral LD50: 15,000 mg/kg in  
Rats Dermal LD50: > 20,000 mg/kg in rabbits  
Inhalation 4-hour ALC: >5.0 mg/L in rats

1,3-Propanediol is not an eye irritant, is a slight skin irritant, and is not skin sensitizer.

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Repeated exposure of rats by oral gavage caused no toxicologically important changes in clinical pathology, pathology (including sperm analyses), or in-life measurements. The NOEL for this study was 1000 mg/kg/day, the highest dose tested.

Repeated inhalation exposure in rats caused no toxicologically important changes in clinical Pathology, pathology, or in-life measurements. The NOEL was 1800 mg/m<sup>3</sup>.

Animal data show that 1,3-Propanediol is not uniquely toxic to the foetus. Information about reproductive toxicity potential is limited to information from the oral repeated dose study in rats.

The absence of effects to sperm and reproductive organs in an oral repeat-dose study in rats suggest low reproductive toxicity potential.

1,3-Propanediol is not likely to be a genetic toxin. In vitro, it was not mutagenic in bacterial or mammalian cells. An increase in chromosome aberrations was observed in mammalian cells under certain conditions, but a repeat study with 1,3-Propanediol was negative for all test conditions. 1,3-Propanediol was also negative in the in vivo mouse micronucleus assay.

No animal data are available to define the carcinogenic potential of 1,3-Propanediol.

## Human Data

Basis for Assessment: Information given is based on test data in SALIDIOL G.

SALIDIOL G was not a dermal irritant or sensitizer at test concentrations as high as 75% in a 207-person human skin patch test.

## 12. ECOLOGICAL INFORMATION

Basis for assessment: Information given is based on test data for a similar product

### AQUATIC TOXICITY

Low Toxicity:

48-hour EC 50 - Daphnia magna: 7417 mg/ L

72-hour EC 50 – algae, 1600 mg/L

96-hour LC50 – fathead minnow: >9720 mg/l

Mobility: dissolves in water

Persistence/ degradability: readily biodegradable

Bioaccumulation: low potential to bioaccumulate

## 13. DISPOSAL CONSIDERATIONS

Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

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## **14. TRANSPORT INFORMATION**

Shipping information: not regulated as a hazardous material by DOT, IMO, or IATA.

## **15. REGULATORY INFORMATION**

TSCA Inventory status: listed.

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