

# Safety Data Sheet

## 2-Propanol, 50%

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** 2-Propanol, 50%  
**Recommended Use:** Science education applications  
**Synonyms:** Isopropanol, Isopropyl Alcohol  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**DANGER**



Highly flammable liquid and vapor. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness.

**GHS Classification:**

Flammable Liquid Category 2, Serious Eye Damage/Eye Irritation Category 2, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u>           | <u>CAS #</u> | <u>%</u> |
|--------------------------------|--------------|----------|
| 2-Propanol (CAS # 67-63-0) 50% | 67-63-0      | 50       |

### Section 4 First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
**Eyes:** 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/attention.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Vapors may travel back to ignition source. Closed Containers exposed to heat may explode. Risk of explosion if heated under confinement. May cause fire.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6 Spill or Leak Procedures

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## Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

## Section 7

## Handling and Storage

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling:</b>     | Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Bond and ground containers when transferring liquid. Do not breathe gas/fumes/vapor/spray. |
| <b>Storage:</b>      | Keep container tightly closed. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Code:</b> | Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Section 8

## Protection Information

| Chemical Name | ACGIH       |              | OSHA PEL                   |        |
|---------------|-------------|--------------|----------------------------|--------|
|               | (TWA)       | (STEL)       | (TWA)                      | (STEL) |
| 2-Propanol    | 200 ppm TWA | 400 ppm STEL | 400 ppm TWA; 980 mg/m3 TWA | N/A    |

### Control Parameters

#### Engineering Measures:

No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

#### Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

#### Respiratory Protection:

No respiratory protection required under normal conditions of use.

#### Respirator Type(s):

NIOSH approved air purifying respirator with organic vapor cartridge and HEPA filter.

#### Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

#### Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

#### Gloves:

Nitrile

## Section 9

## Physical Data

|                                                                        |                                                     |
|------------------------------------------------------------------------|-----------------------------------------------------|
| <b>Formula:</b> C3H7OH                                                 | <b>Vapor Pressure:</b> 31.5 mmHg at 20 °C           |
| <b>Molecular Weight:</b> 60.10 (2-Propanol)                            | <b>Evaporation Rate (BuAc=1):</b> 2.3               |
| <b>Appearance:</b> Colorless Liquid                                    | <b>Vapor Density (Air=1):</b> 2.07 (2-Propanol)     |
| <b>Odor:</b> Strong Alcohol Odor                                       | <b>Specific Gravity:</b> approx 0.80 at 20 °C       |
| <b>Odor Threshold:</b> No data available                               | <b>Solubility in Water:</b> Soluble                 |
| <b>pH:</b> No data available                                           | <b>Log Pow (calculated):</b> No data available      |
| <b>Melting Point:</b> -89 C                                            | <b>Autoignition Temperature:</b> No data available  |
| <b>Boiling Point:</b> 83 C                                             | <b>Decomposition Temperature:</b> No data available |
| <b>Flash Point:</b> 18 C 12 C                                          | <b>Viscosity:</b> No data available                 |
| <b>Flammable Limits in Air:</b> (100% 2-Propanol) LEL: 2.0% UEL: 12.7% | <b>Percent Volatile by Volume:</b> 99%              |

## Section 10

## Reactivity Data

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Reactivity:</b>          | No data available                                                      |
| <b>Chemical Stability:</b>  | Stable under normal conditions.                                        |
| <b>Conditions to Avoid:</b> | Sparks, open flame, other ignition sources, and elevated temperatures. |

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**Incompatible Materials:** Acids, Strong oxidizing agents, Strong reducing agents, Metals, Peroxides, Epoxides, Isocyanates, Water-reactive materials

**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation and ingestion.  
**Symptoms (Acute):** , Eye disorders  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name | CAS Number | Oral LD50                                                    | Dermal LD50 | Inhalation LC50                  |
|---------------|------------|--------------------------------------------------------------|-------------|----------------------------------|
| 2-Propanol    |            | Oral LD50 Rat<br>5045 mg/kg<br>Oral LD50 Mouse<br>3600 mg/kg |             | INHALATION<br>LC50 Rat 16000 ppm |
| Water         |            | Oral LD50 Rat<br>90000 mg/kg                                 |             |                                  |

### Carcinogenicity:

| Chemical Name | CAS Number | IARC   | NTP        | OSHA       |
|---------------|------------|--------|------------|------------|
| 2-Propanol    |            | Listed | Not listed | Not listed |

### Chronic Effects:

**Mutagenicity:** No evidence of a mutagenic effect.  
**Teratogenicity:** No evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** No evidence of negative reproductive effects.

### Target Organ Effects:

**Acute:** See Section 2  
**Chronic:** Mutation data cited., Reproductive data cited., Certain components or species of this product are considered potential carcinogens.

## Section 12 Ecological Data

**Overview:** This material is not expected to be harmful to the ecology.  
**Mobility:** No data  
**Persistence:** No data  
**Bioaccumulation:** No data  
**Degradability:** No data  
**Other Adverse Effects:** No data

| Chemical Name | CAS Number | Eco Toxicity                                                                                                                                                                                                                                   |
|---------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2-Propanol    |            | 96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 µG/L<br>96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC]<br>48 HR EC50 DAPHNIA MAGNA 13299 MG/L<br>72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L<br>96 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L |
| Water         |            | No data available                                                                                                                                                                                                                              |

## Section 13 Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

**Waste Disposal Code(s):** D001

## Section 14 Transport Information

**Ground - DOT Proper Shipping Name:** UN1219, Isopropanol, 3, II

**Air - IATA Proper Shipping Name:** UN1219, Isopropanol, 3, II

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## Section 15

## Regulatory Information

**TSCA Status:**

All components in this product are on the TSCA Inventory.

**Chemical Name****CAS  
Number****§ 313 Name****§ 304 RQ****CERCLA RQ****§ 302 TPQ****CAA 112(2)  
TQ**

2-Propanol

Isopropyl  
alcohol

No

No

No

No

## Section 16

## Additional Information

**Revised: 08/26/2014**

**Replaces: 08/21/2014**

**Printed: 04-21-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

|        |                                                                          |      |                                               |
|--------|--------------------------------------------------------------------------|------|-----------------------------------------------|
| ACGIH  | American Conference of Governmental<br>Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                         | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response,<br>Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                        | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                              | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available                                                            | SARA | Superfund Amendments and Reauthorization Act  |
|        |                                                                          | TLV  | Threshold Limit Value                         |
|        |                                                                          | TSCA | Toxic Substances Control Act                  |
|        |                                                                          | IDLH | Immediately dangerous to life and health      |