

# Safety Data Sheet

## Chromatography Solvent (2-Propanol and Ammonium Hydroxide)

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

### Section 1 Product Description

**Product Name:** Chromatography Solvent (2-Propanol and Ammonium Hydroxide)  
**Recommended Use:** Science education applications  
**Synonyms:** Paper Chromatography Solvent  
**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**



Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation. May cause drowsiness or dizziness. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**GHS Classification:**

Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Hazardous to the aquatic environment - Acute Category 2, Hazardous to the aquatic environment - Chronic 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> |
|----------------------|--------------|----------|
| Water                | 7732-18-5    | 68       |
| 2-Propanol           | 67-63-0      | 25       |
| Ammonium Hydroxide   | 1336-21-6    | 7        |

### 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.  
**Skin Contact:** IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.  
**Ingestion:** IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

### Section 5 Firefighting Procedures

**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

# Safety Data Sheet

## Section 6

## Spill or Leak Procedures

### 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.

Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Wear a self-contained breathing apparatus and appropriate Personal protection. (See Section 8.) Persons not wearing appropriate protective equipment should be excluded from area of spill until clean-up has been completed.

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. Avoid creating dusts. Cover material with absorbent and moisten and collect for disposal. Collect spillage.

## Section 7

## Handling and Storage

**Handling:** Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Suitable for any general chemical storage.

**Storage Code:** Keep container tightly closed in a cool, well-ventilated place.  
Green - general chemical storage

## 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/m <sup>3</sup> 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. NIOSH approved air purifying respirator with ammonia cartridge. Air purifying respirators should not be used in oxygen deficient or IDLH atmospheres.

**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, Butyl rubber, Impervious rubber, Natural latex,, Natural rubber, Nitrile - Extra Thick (8 mm)

## Section 9

## Physical Data

**Formula:** See Section 3

**Molecular Weight:**

**Appearance:** Colorless Liquid

**Vapor Pressure:** No data available

**Evaporation Rate (BuAc=1):** No data available

**Vapor Density (Air=1):** No data available

# Safety Data Sheet

**Odor:** Strong Alcohol Odor  
**Odor Threshold:** No data available  
**pH:** No data available  
**Melting Point:** -89 C  
**Boiling Point:** No data available  
**Flash Point:** No data available  
**Flammable Limits in Air:** No data available

**Specific Gravity:** No data available  
**Solubility in Water:** Slightly Soluble  
**Log Pow (calculated):** No data available  
**Autoignition Temperature:** No data available  
**Decomposition Temperature:** No data available  
**Viscosity:** No data available  
**Percent Volatile by Volume:** No data available

## Section 10

## Reactivity Data

**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Sparks, open flame, other ignition sources, and elevated temperatures.  
**Incompatible Materials:** Water-reactive materials, Acids, Strong oxidizing agents, Strong reducing agents, Metals, Peroxides, Epoxides, Isocyanates, Copper, Iron Salts, Zinc  
**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry:** Inhalation and ingestion.  
**Symptoms (Acute):** Central Nervous System Depression, Respiratory disorders  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name      | CAS Number | Oral LD50  | Dermal LD50 | Inhalation LC50   |
|--------------------|------------|--|-------------|---|
| Water              | 7732-18-5  | Oral LD50 Rat<br>90000 mg/kg                                 |             |   |
| 2-Propanol         | 67-63-0    | Oral LD50 Rat<br>5045 mg/kg<br>Oral LD50 Mouse<br>3600 mg/kg |             | INHALATION<br>LC50 Rat 16000<br>ppm   |
| Ammonium Hydroxide | 1336-21-6  | Oral LD50 Rat =<br>350 mg/kg                                 |             | INHALATION<br>LC50 Mouse 4500<br>ppm<br>INHALATION<br>LC50 Mouse<br>21430 ppm<br>INHALATION<br>LC50 Rat 9500<br>ppm |

### Carcinogenicity:

| Chemical Name | CAS Number | IARC   | NTP        | OSHA       |
|---------------|------------|--------|------------|------------|
| 2-Propanol    | 67-63-0    | 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:** Central Nervous System, See Section 2  
**Chronic:** No information available

## 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 |
|---------------|------------|--------------|
|---------------|------------|--------------|

Chromatography Solvent (2-Propanol and Ammonium Hydroxide)

# Safety Data Sheet

|                     |                      |   |
|---------------------|----------------------|---|
| Water<br>2-Propanol | 7732-18-5<br>67-63-0 | No data available<br>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 |
| Ammonium Hydroxide  | 1336-21-6            | 96 HR LC50 PIMEPHALES PROMELAS 8.2 MG/L<br>48 HR EC50 DAPHNIA PULEX 0.66 MG/L<br>48 HR EC50 WATER FLEA 0.66 MG/L  |

## 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):** Not Determined

## Section 14 Transport Information

**Ground - DOT Proper Shipping Name:** UN 2924, Flammable liquid, corrosive; 3(8), II

**Air - IATA Proper Shipping Name:** UN 2924, Flammable liquid, corrosive; 3(8), II

## 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         | 67-63-0    | Isopropyl alcohol | No         | No                                | No        | No            |
| Ammonium Hydroxide | 1336-21-6  | No                | 1000 lb RQ | 1000 lb final RQ; 454 kg final RQ | No        | No            |

## Section 16 Additional Information

**Revised:** 09/09/2015      **Replaces:** 09/01/2015      **Printed:** 10-29-2015

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 Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, 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      |