

# Safety Data Sheet

## Tert-Butyl Alcohol

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

### Section 1 Product Description

**Product Name:** Tert-Butyl Alcohol

**Recommended Use:** Science education applications

**Synonyms:** Trimethyl carbinol, T-Butyl alcohol, T-Butanol

**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.

**GHS Classification:**

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

**Acute Toxicity Dermal Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u> | <u>CAS #</u> | <u>%</u> |
|----------------------|--------------|----------|
| Tert-Butyl Alcohol   | 75-65-0      | 100      |

### 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:** After contact with skin, wash immediately with plenty of water.

**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.

**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. Evaporation of volatile substances can lead to the displacement of air creating an environment that can cause asphyxiation. Isolate area. Keep unnecessary personnel away. Keep upwind of the spilled material and isolate exposure. Evacuate the area promptly. Avoid breathing material. Avoid creating and inhaling spray or mist. Avoid contact with skin and eyes. Ventilate the area by opening door and/or turning on fans and blowers. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Contain the discharged material. Block any potential routes to water systems. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

## Section 7 Handling and Storage

**Handling:** 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.

**Storage:** 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.

**Storage Code:** Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

## Section 8 Protection Information

| <u>Chemical Name</u> | <u>ACGIH</u> |               | <u>OSHA PEL</u>            |                   |
|----------------------|--------------|---------------|----------------------------|-------------------|
|                      | <u>(TWA)</u> | <u>(STEL)</u> | <u>(TWA)</u>               | <u>(STEL)</u>     |
| Tert-Butyl Alcohol   | 100 ppm TWA  | N/A           | 100 ppm TWA; 300 mg/m3 TWA | 150 ppm 450 mg/m3 |

### Control Parameters

**Engineering Measures:** Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if any exposure is possible.

**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> (CH <sub>3</sub> ) <sub>3</sub> COH | <b>Vapor Pressure:</b> 31 at 20°C                   |
| <b>Molecular Weight:</b> 74.14                      | <b>Evaporation Rate (BuAc=1):</b> n/a               |
| <b>Appearance:</b> Colorless Liquid                 | <b>Vapor Density (Air=1):</b> 2.6                   |
| <b>Odor:</b> Mild                                   | <b>Specific Gravity:</b> 0.78                       |
| <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> 25 C                          | <b>Autoignition Temperature:</b> 477.78 C           |
| <b>Boiling Point:</b> 83 C                          | <b>Decomposition Temperature:</b> No data available |
| <b>Flash Point:</b> 11 C                            | <b>Viscosity:</b> No data available                 |
| <b>Flammable Limits in Air:</b> 2.35% 8%            | <b>Percent Volatile by Volume:</b> 100%             |

## Section 10 Reactivity Data

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**Reactivity:** No data available  
**Chemical Stability:** Stable under normal conditions.  
**Conditions to Avoid:** Temperatures above flash point in combination with sparks, open flames, or other sources of ignition.  
**Incompatible Materials:** Copper, Aluminum alloys, Alkali and Alkaline Metals  
**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry:** Inhalation, ingestion, eye or skin contact.  
**Symptoms (Acute):** N/A  
**Delayed Effects:** No data available

### Acute Toxicity:

| Chemical Name      | CAS Number | Oral LD50  | Dermal LD50    | Inhalation LC50                       |
|--------------------|------------|--|----------------|---------------------------------------|
| Tert-Butyl Alcohol | 75-65-0    | Oral LD50 Rabbit<br>3559 mg/kg<br>Oral LD50 Rabbit<br>3600 mg/kg<br>Oral LD50 Rat<br>3500 mg/kg<br>Oral LD50 Rat<br>2743 mg/kg | Not determined | INHALATION<br>LC50 Rat > 10000<br>ppm |

### Carcinogenicity:

| Chemical Name     | CAS Number | IARC       | NTP        | OSHA       |
|-------------------|------------|------------|------------|------------|
| No data available | 75-65-0    | Not 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:** N/A

## Section 12 Ecological Data

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

| Chemical Name      | CAS Number | Eco Toxicity  |
|--------------------|------------|---|
| Tert-Butyl Alcohol | 75-65-0    | 48 HR EC50 DAPHNIA MAGNA 933 MG/L<br>72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 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:**

**Air - IATA Proper Shipping Name:**

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UN number: 1120 Class: 3 Packing group: II Proper shipping name: Butanols Reportable Quantity (RQ): Marine pollutant: No Poison Inhalation Hazard: No

UN number: 1120 Class: 3 Packing group: II Proper shipping name: Butanols

## 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 |
|--------------------|------------|--------------------|----------|-----------|-----------|---------------|
| Tert-Butyl Alcohol | 75-65-0    | tert-Butyl alcohol | No       | No        | No        | No            |

## Section 16

## Additional Information

Revised: 09/03/2014

Replaces: 08/27/2014

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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      |