

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

| | |
|--------------|--|
| Product name | tert-Butyl alcohol |
| CAS number | 75-65-0 |
| Synonyms | t-Butyl alcohol; t-Butanol; 2-Methyl-2-propanol; 2-Methylpropan-2-ol |

1.2 Relevant identified uses of the substance or mixture and uses advised against

| | |
|-----------------|-----------------------|
| Identified uses | Laboratory chemicals. |
|-----------------|-----------------------|

1.3 Details of the supplier of the safety data sheet

| | |
|-----------|--|
| Company | Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A. |
| Telephone | 512-668-9918 |
| Fax | 512-886-4008 |

1.4 Emergency telephone

| | | |
|-------------------|------------------------------|----------|
| Emergency Phone # | US & Canada: 1-800-535-5053 | INFOTRAC |
| | International 1-352-323-3500 | INFOTRAC |


SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

| | |
|--|------------|
| Flammable Liquids | Category 2 |
| Acute Inhalation Toxicity | Category 4 |
| Serious Eye Damage/Eye Irritation | Category 2 |
| Specific Target Organ Toxicity (single exposure) | Category 3 |
| Target Organs - Respiratory system, Central nervous system (CNS) | |

2.2 GHS Label elements, including precautionary statements

| | |
|--------------------------|---|
| Pictogram |  |
| Signal Word | Danger |
| Hazard statements | Highly flammable liquid and vapor. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause drowsiness or dizziness. |
| Precautionary statements | <p>Prevention: Use only outdoors or in a well-ventilated area. Wash face, hands, and any exposed skin thoroughly after handling. Do not breathe dust/fume/gas/mist/vapors/spray. 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. Wear protective gloves/protective clothing/eye protection/face protection. Keep cool.</p> <p>Response: Get medical attention/advice if you feel unwell.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>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.</p> <p>Fire: In case of fire, use CO₂, dry chemical, or foam for extinction.</p> <p>Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.</p> <p>Disposal: Dispose of contents/container to an approved waste disposal plant.</p> |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

None identified.

SECTION 3: Composition/information on ingredients

3.1 Components

| Chemical name | Common name and synonyms | CAS number | Concentration |
|--------------------|---|------------|---------------|
| tert-Butyl alcohol | t-Butyl alcohol; t-Butanol; 2-Methyl-2-propanol | 75-65-0 | >95% |

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

- If inhaled** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
- In case of skin contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
- In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
- If swallowed** Clean mouth with water and drink afterwards plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea, and vomiting.

4.3 Indication of any immediate medical attention and special treatment needed

If symptoms persist, call a physician. Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** Water spray, Carbon dioxide (CO₂), dry chemical, alcohol-resistant foam. Water mist maybe used to cool closed containers.
- Unsuitable extinguishing media** No information available.

5.2 Specific hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.
Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO₂).

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

5.4 Further information

Flash Point 11 °C / 51.8 °F

Autoignition Temperature 490 °C / 914 °F

Explosion limits

Upper 8.0 vol %

Lower 2.4 vol %

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

| Health | Flammability | Instability | Physical hazards |
|--------|--------------|-------------|------------------|
| 2 | 3 | 0 | N/A |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

6.2 Environmental precautions

Should not be released into the environment.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Precautions on safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Ensure adequate ventilation. Keep away from open flames, hot surfaces, and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool, and well-ventilated place. Flammables area. Keep away from heat, sparks, and flame.

Incompatibilities

Strong oxidizing agents. Strong acids. Alkali metals.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Component | Type | Value | |
|--------------------|----------------|---------|-----------|
| tert-Butyl alcohol | (Vacated) TWA | 100 ppm | 300 mg/m3 |
| | (Vacated) STEL | 150 ppm | 450 mg/m3 |
| | TWA | 100 ppm | 300 mg/m3 |

US. ACGIH Threshold Limit Values

| Component | Type | Value |
|--------------------|------|---------|
| tert-Butyl alcohol | TWA | 100 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Component | Type | Value | |
|--------------------|------|----------|-----------|
| tert-Butyl alcohol | IDLH | 1600 ppm | |
| | STEL | 150 ppm | 450 mg/m3 |
| | TWA | 100 ppm | 300 mg/m3 |

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

No protective equipment is needed under normal use conditions.

Control of environmental exposure

No information available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|-----------------------------|
| Physical State | Liquid |
| Appearance | Clear |
| Odor | Strong |
| Odor Threshold | No information available |
| pH | 7 |
| Melting Point/Range | 25 - 25.5 °C / 77 - 77.9 °F |
| Boiling Point/Range | 83 °C / 181.4 °F @ 760 mmHg |
| Evaporation Rate | No information available |
| Flammability (solid) | Not applicable |
| Flammability or explosive limit | |
| Upper | 8.0 vol % |
| Lower | 2.4 vol % |
| Vapor Pressure | 36 mbar @ 20 °C |
| Vapor Density | 2.6 |
| Density | 0.775 |
| Solubility | Miscible |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temp | 490 °C / 914 °F |
| Decomposition Temp | No information available |
| Viscosity | 6.43 mPa.s (25°C) |
| Molecular Formula | C4 H10 O |

| | |
|----------------------|--------------------------|
| Molecular Weight | 74.12 g/mol |
| VOC Content(%) | No information available |
| Oxidizing properties | No information available |

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

May form explosive peroxides.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible products. Excess heat. Keep away from open flames, hot surfaces, and sources of ignition.

10.5 Incompatible materials

Strong oxidizing agents, Strong acids, Alkali metals.

10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------------|-------------------|----------------------|-------------------|
| tert-Butyl alcohol | >3100 mg/kg (Rat) | >2000 mg/kg (Rabbit) | >31 mg/L/4h (Rat) |

Skin corrosion/irritation

No information available.

Serious eye damage/eye irritation

Irritating to eyes.

Respiratory or skin sensitization

No information available.

Germ cell mutagenicity

No information available.

Carcinogenicity

| Component | CAS | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------------|---------|------------|------------|------------|------------|------------|
| tert-Butyl alcohol | 75-65-0 | Not listed | Not listed | Not listed | Not listed | Not listed |

Specific target organ toxicity - single exposure

Respiratory system, Central nervous system (CNS).

Specific target organ toxicity - repeated exposure

None known.

Reproductive toxicity

No information available.

Chronic effects

Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea, and vomiting.

11.2 Additional Information

The toxicological properties have not been fully investigated.

SECTION 12: Ecological information

12.1 Toxicity

Do not empty into drains.

| Product | | Species | Test Results |
|--------------------|------|---------------------|-----------------|
| tert-Butyl alcohol | EC50 | Freshwater Algae | 1000 mg/L 72h |
| | LC50 | Pimephales promelas | >961 mg/L 96h |
| | EC50 | Microtox | >10000 mg/L 17h |
| | EC50 | Water Flea | 933 mg/L 48h |

12.2 Persistence and degradability

Persistence is unlikely based on information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

Will likely be mobile in the environment due to its volatility.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

| | |
|----------------------|----------|
| UN-No | UN1120 |
| Proper Shipping Name | BUTANOLS |
| Hazard Class | 3 |
| Packing Group | II |

IMDG

| | |
|----------------------|----------|
| UN-No | UN1120 |
| Proper Shipping Name | BUTANOLS |
| Hazard Class | 3 |
| Packing Group | II |

IATA

| | |
|----------------------|----------|
| UN-No | UN1120 |
| Proper Shipping Name | BUTANOLS |
| Hazard Class | 3 |
| Packing Group | II |

SECTION 15: Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not applicable.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

See Section 2 for more information.

SARA 313 (TRI reporting)

Listed, tert-Butyl alcohol (CAS #75-65-0).

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Listed, tert-Butyl alcohol (CAS #75-65-0).

US. New Jersey Worker and Community Right-to-Know Act

Listed, tert-Butyl alcohol (CAS #75-65-0).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed, tert-Butyl alcohol (CAS #75-65-0).

California Proposition 65

Not listed.

SECTION 16: Other information

Issue date: 12/18/2023

Revised on 05/14/2026

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.