

SAFETY DATA SHEET

SECTION 1 - COMPANY AND PRODUCT IDENTIFICATION

PRODUCT

Product Name: BUTANOL
Control Number: 00072
Product Description: Linear Alcohol

COMPANY IDENTIFICATION

Supplier: Chemical Distribution Solutions
1125 Oak St. Ste. 303
Conway, AR 72032

24 Hour Emergency Telephone: (800) 424-9300 CHEMTREC
General Information: (501) 978-1111

SECTION 2- HAZARDS IDENTIFICATION

GHS Classification:

[Health]

Eye irritation Category 2A
Acute toxicity, Oral Category 4
Skin irritation Category 2

[Environmental]

None

[Physical]

Flammable liquids Category 3

GHS Label elements, including precautionary statements

Pictograms



Signal word Warning

Hazard statement(s)

H226 Flammable liquid and vapor.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS Number	%WT
Butanol	71-36-3	100

SAFETY DATA SHEET

SECTION 4 · FIRST AID MEASURES

FIRST AID PROCEDURES:

Eye Contact: Flush eyes with plenty of water for at least 15 minutes. Seek medical attention.

Skin Contact: Wash with soap and water. Seek medical attention if irritation develops.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Seek medical attention if symptoms appear.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical attention.

SECTION 5 · FIRE FIGHTING MEASURES

Suitable Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous combustion products: Oxides of carbon and various hydrocarbons

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

Unusual Fire and Explosion Hazards: Containers can build up pressure if exposed to heat and/or fire. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Vapors will form an explosive mixture with air. Vapors will travel to a source of ignition and flash back.

SECTION 6 · ACCIDENTAL RELEASE and DISPOSAL MEASURES

Spills: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Contain spillage, salvage as much recyclable material as possible, then collect with an electrically protected vacuum cleaner or by wet-brushing and place in a container for disposal according to regulations.

SECTION 7 · STORAGE AND HANDLING

Handling: Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Keep container closed and tightly sealed when not in use. Avoid contact with skin and eyes.

Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge.

Storage: This material is a static accumulator. Use non-sparking tools. Store in a cool, dry, ventilated area, away from incompatible substances. Store only in approved properly labeled containers. Containers should be grounded and bonded.

SECTION 8 · EXPOSURE CONTROLS AND PERSONAL PROTECTION

Engineering Controls: Provide explosion-proof ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits indicated below.

Exposure Limits: Butanol 20 ppm ACGIH; 50 ppm OSHA

Personal Protective Equipment (PPE):

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

Skin: If prolonged or repeated skin contact is likely, wear appropriate protective gloves.

Clothing: Selection of protective clothing depends on work conditions, potential exposure conditions and may include gloves, boots, suits and other protective items.

Respirators: Where adequate ventilation is not available an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of OSHA Respiratory Protection Standard, 29 CFR 1920.134. In confined areas, use a self-contained breathing apparatus.

SAFETY DATA SHEET

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

Flash Point: 95 °F
Autoignition Temperature: no data available
Boiling Point Range: 241 - 244 °F
Melting Point/Freezing Point: -130 °F
Vapor Pressure: 4 mmHg
Vapor Density (Air-1): 2.5
Odor/Appearance: Clear colorless liquid with an alcoholic odor

Flammability Limits: Lower: 1 Upper: 11
Specific Gravity: 0.81
Volatile %: 100
Evaporation Rate: no data available
pH: Not Applicable
Solubility in Water: Soluble

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability: Stable under normal use and temperature conditions.
Conditions to Avoid: Keep away from heat, flame and other potential ignition sources.
Incompatible Materials: Strong oxidizing agents, Strong reducing agents, Strong bases
Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Signs and Symptoms of Overexposure:

Skin: Contact can cause redness and irritation. Severity depends on the amount and duration of exposure.

Eyes: Vapors are irritating to the eyes. Liquid contact will cause stinging and tearing.

Inhalation: Excessive inhalation of high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing this material may cause central nervous system depression. May cause drowsiness or dizziness.

Ingestion: If swallowed this material may irritate the mucous membranes of the mouth throat and esophagus. Aspiration of this material into the lungs may result in damage or death.

Acute oral toxicity:

Butanol: LD50 Oral rat: 790 mg/kg

Acute inhalation toxicity:

Butanol: LC50 rat: 8000 ppm 4h

Acute dermal toxicity:

Butanol: LD50 rabbit: 3,400 mg/kg

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity: Toxicity to fish -LC50 - Pimephales promelas (fathead minnow) - 1,840 mg/l - 96 h

Bio-accumulative potential: Bioaccumulation of this product is not expected. This product is readily biodegradable.

Mobility: No available data.

SECTION 13 - DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

SAFETY DATA SHEET

SECTION 14 · TRANSPORTATION

U.S. DEPARTMENT OF TRANSPORTATION (Road or Rail):

Proper Shipping Name: Butanols
Hazard Class: 3
UN Number: 1120
Packaging Group: 3

SECTION 15 · REGULATORY INFORMATION

US FEDERAL REGULATIONS

Comprehensive Environmental Response and Liability Act (CERCLA)

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. The reportable quantity (RQ) for this material is 5000 pounds. If appropriate, immediately report to the National Response Center (800/424-8802) as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies.

Toxic Substance Control Act (TSCA): All components of this product are listed on the TSCA inventory list.

SARA Section 311/312 (40 CFR 370) Hazard Categories:

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA Section 313 (40 CFR 372) Hazard Categories:

The following components are subject to reporting levels established by SARA Title III, Section 313: Butanol

Clean Water Act: This product contains no chemicals that are listed under the CWA.

Clean Air Act: This product contains no chemicals that are listed under the CAA.

California Prop 65: This product contains no chemicals known by the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 · OTHER INFORMATION

MSDS Revision Date: September 2014

National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

Health: 2
Flammability: 3
Reactivity: 0

The data in this Safety Data Sheet relates to the specific material designated and does not relate to its use in combination with any other material or process. The data contained is believed to be correct. However, since conditions of use are outside our control it should not be taken as warranty or representation for which Chemical Distribution Solutions assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.