

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name	Diethylene glycol mono-n-butyl ether
CAS number	112-34-5
Synonyms	Butyl diglycol, Diethylene glycol monobutyl ether, Butyl carbitol, 2-(2-Butoxyethoxy)ethanol, Dioxitol

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

Identified uses	Laboratory chemicals.
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#### 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)

Serious Eye Damage/Eye Irritation	Category 2
Specific Target Organ Toxicity (repeated exposure)	Category 2
Target Organs - Kidney, Liver	

#### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statements

Causes serious eye irritation.  
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention: Wash face, hands, and any exposed skin thoroughly after handling. Wear eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray.

Response: Get medical attention/advice if you feel unwell.

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.

Disposal: Dispose of contents/container to an approved waste disposal plant.

### 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
Diethylene glycol mono-n-butyl ether	Butyl diglycol, Diethylene glycol monobutyl ether, Butyl carbitol, 2-(2-Butoxyethoxy)ethanol, Dioxitol	112-34-5	>95%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

#### If inhaled

Remove to fresh air. Get medical attention if symptoms occur. If not breathing, give artificial respiration.

#### In case of skin contact

Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**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** Do NOT induce vomiting. Get medical attention.

#### 4.2 Most important symptoms and effects, both acute and delayed

No information available.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media** Water spray, Carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

**Unsuitable extinguishing media** No information available.

#### 5.2 Specific hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

#### 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** 77.7 °C / 171.86 °F

**Autoignition Temperature** 227.7 °C / 441.86 °F

##### Explosion limits

**Upper** 5.30 vol %

**Lower** 0.70 vol %

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge**

No information available.

**NFPA**

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Remove all sources of ignition. Avoid contact with skin, eyes, or clothing.

### 6.2 Environmental precautions

Avoid release to the environment. See Section 12 for additional Ecological Information.

### 6.3 Methods and materials for containment and cleaning up

Remove all sources of ignition. Soak up with inert absorbent material. Keep insuitable, closed containers for disposal.

### 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. Ensure adequate ventilation. Avoid contact with skin, eyes, or clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces, and sources of ignition.

#### 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. Keep away from heat, sparks, and flame.

#### Incompatibilities

Strong oxidizing agents. Metals. Strong acids. Strong bases. Peroxides.

## SECTION 8: Exposure controls/personal protection

### 8.1 Occupational exposure limits

### US. ACGIH Threshold Limit Values

Component	Type	Value
Diethylene glycol monobutyl ether	TWA	10 ppm

### 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.

### 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

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Organic gases and vapours filter. Type A. Brown.

#### 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	Colorless
Odor	Faint, mild, characteristic odor
Odor Threshold	No information available
pH	No information available
Melting Point/Range	-68°C

Boiling Point/Range	231°C @ 760 mmHg
Evaporation Rate	<0.01
Flammability (solid)	Not applicable
Flammability or explosive limit	
Upper	5.30 vol %
Lower	0.70 vol %
Vapor Pressure	0.01 mm Hg @ 20°C
Vapor Density	5.6
Density	0.9536 @ 20°C
Solubility	Soluble
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	227.7°C / 441.86°F
Decomposition Temp	No information available
Viscosity	0.0649 cps @ 20°C
Molecular Formula	C8H18O3
Molecular Weight	162.23 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

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

May form explosive peroxides.

### 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, Metals, Strong acids, Strong bases, Peroxides.

### 10.6 Hazardous decomposition products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

## Product Information, Component Information

### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Diethylene glycol monobutyl ether	5660 mg/kg (Rat)	2700 mg/kg (Rabbit)	-

### 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
Diethylene glycol monobutyl ether	112-34-5	Not listed	Not listed	Not listed	Not listed	Not listed

### Specific target organ toxicity - single exposure

None known.

### Specific target organ toxicity - repeated exposure

Kidney, Liver.

### Reproductive toxicity

No information available.

### Chronic effects

No information available.

## 11.2 Additional Information

The toxicological properties have not been fully investigated.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product	EC50	Species	Test Results
Diethylene glycol	EC50	Desmodesmus subspicatus	> 100 mg/L, 96h

Diethylene glycol monobutyl ether	LC50	Lepomis macrochirus	1300 mg/L, 96h static
	EC50	Daphnia magna	> 100 mg/L, 48h

## 12.2 Persistence and degradability

Soluble in water. 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 water solubility (log Pow = -0.56).

## 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)** Not regulated.

**IMDG** Not regulated.

**IATA** Not regulated.

## 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, Diethylene glycol monobutyl ether (CAS #112-34-5).

**Other federal regulations**

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

Listed, Diethylene glycol monobutyl ether (CAS #112-34-5).

**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**

Not listed.

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

Listed, Diethylene glycol monobutyl ether (CAS #112-34-5).

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

Listed, Diethylene glycol monobutyl ether (CAS #112-34-5).

**California Proposition 65**

Not listed.

**SECTION 16: Other information**

Issue date: 06/09/1999  
Revision 1: 04/27/2007  
Revision 2: 12/30/2024

## **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.