



# 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER

## Safety Data Sheet

according to Regulation (EC) No. 453/2010 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 10/11/2015

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Version: 1.0

**DLM-8811-S**

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

#### 1.1. Product identifier

Product form : Mixtures  
Product name. : 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER  
Product code : DLM-8811-S  
Formula : CH<sub>3</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>OCD<sub>2</sub>CD<sub>2</sub>OH

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

##### 1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only.

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.  
50 Frontage Road  
Andover, MA 01810  
USA

USA: 1-800-322-1174 Int: 1-978-749-8000  
[cilsales@isotope.com](mailto:cilsales@isotope.com) [www.isotope.com](http://www.isotope.com)

#### Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)  
International: 1-703-741-5970 (24 hours)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

##### Classification (GHS-US)

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labeling according to Regulation (EC) No. 1272/2008 [CLP]

No labeling applicable

##### GHS-US labeling

No labeling applicable

#### 2.3. Other hazards

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
WATER UNLABELED	(CAS No) 7732-18-5 (EC no) 231-791-2	99.9	Not classified
2-BUTOXYETHANOL (1,1,2,2-D4, 99%)	(CAS No) 1219803-96-9 (EC index no) 603-014-00-0 (Unlabeled)	0.1	Xn; R20/21/22 Xi; R36/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
WATER UNLABELED	(CAS No) 7732-18-5 (EC no) 231-791-2	99.9	Not classified
2-BUTOXYETHANOL (1,1,2,2-D4, 99%)	(CAS No) 1219803-96-9 (EC index no) 603-014-00-0 (Unlabeled)	0.1	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of R-, H- and EUH-phrases: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation : If not breathing give artificial respiration.  
First-aid measures after ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

No additional information available

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### 5.2. Special hazards arising from the substance or mixture

Reactivity : Not available.

#### 5.3. Advice for firefighters

Firefighting instructions : The product itself does not burn.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

No additional information available

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

#### 6.3. Methods and material for containment and cleaning up

For containment : Wipe up with absorbent material (e.g. cloth, fleece).

#### 6.4. Reference to other sections

No additional information available

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep container tightly closed in a dry and well-ventilated place.  
Storage conditions : Store at room temperature away from light and moisture.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)		
Italy - Portugal - USA ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	>=
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20 ppm Upper Respiratory Tract irritation Substances for which there is a Biological Exposure Index or Indices ( see BEI R Section)
Italy - Portugal - USA ACGIH	Remark (ACGIH)	Butoxyacetic acid (BAA) Value-200.0000 mg/g Biological specimen- Urine Basis-ACGIH-Biological Exposure Indices (BEI) Remarks-End off shift (As soon as possible after exposure ceases)
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	24 mg/m <sup>3</sup> Potential for dermal absorption
USA NIOSH	NIOSH REL (TWA) (ppm)	5 ppm Potential for dermal absorption
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	240 mg/m <sup>3</sup> Skin Designation The value in mg/m <sup>3</sup> is approximate.
USA OSHA	OSHA PEL (TWA) (ppm)	50 ppm Skin Designation

#### 8.2. Exposure controls

Personal protective equipment : Safety glasses. Gloves. Protective clothing. Respiratory protection of the dependent type.



Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection : When appropriate, use NIOSH/CEN approved respirator.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

*The properties listed below are for the solvent, the main component of this mixture.*

Physical state : Liquid  
Appearance : Liquid.  
Molecular mass : 18.02  
Color : Colourless.  
Odor : No data available.  
Odor threshold : No data available  
pH : 6.0 - 8.0 at 25 °C (77 °F)  
Relative evaporation rate (butyl acetate=1) : No data available  
Melting point : 0.0 °C (32.0 °F)  
Freezing point : No data available  
Boiling point : 100.0 °C (212.0 °F)  
Flash point : No data available  
Self ignition temperature : No data available  
Decomposition temperature : No data available  
Flammability (solid, gas) : No data available  
Vapor pressure : No data available

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Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Density	: 1 g/ml at 20 °C (68 °F)
Solubility	: Water: Completely miscible
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Not available.

### 10.2. Chemical stability

See storage and expiration date on CoA.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Not available.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

No data available.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER

LD50 oral rat	> 90000 mg/kg
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#### WATER UNLABELED (7732-18-5)

LD50 oral rat	> 90000 mg/kg
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#### 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)

LD50 oral rat	880 mg/kg (OECD Test Guideline 401)
LD50 dermal rat	1060 mg/kg (OECD Test Guideline 402)
ATE (oral)	500.000 mg/kg body weight
ATE (dermal)	1100.000 mg/kg body weight
ATE (dust, mist)	1.500 mg/l/4h

Skin corrosion/irritation	: Not classified No data available pH: 6.0 - 8.0 at 25 °C (77 °F)
Serious eye damage/irritation	: Not classified No data available pH: 6.0 - 8.0 at 25 °C (77 °F)
Respiratory or skin sensitization	: Not available No data available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not classified
Reproductive toxicity	: Not available
Specific target organ toxicity (single exposure)	: Not classified No data available

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Specific target organ toxicity (repeated exposure)	: Not classified No data available
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: Ecological information

### 12.1. Toxicity

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)	
LC50 fish 1	1474 mg/l 96 h (OECD Test Guideline 203)
EC50 Daphnia 1	1550 mg/l 48 h (OECD Test Guideline 202)
EC50 other aquatic organisms 1	1840 mg/l 72 h (OECD Test Guideline 201)

### 12.2. Persistence and degradability

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER	
Persistence and degradability	Not available.

WATER UNLABELED (7732-18-5)	
Persistence and degradability	Not available.

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)	
Persistence and degradability	Not available.
BOD (% of ThOD)	88 % ThOD
Biodegradation	90.4 % Readily biodegradable (OECD Test Guideline 301B)

### 12.3. Bioaccumulative potential

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER	
Log Pow	No data available
Bioaccumulative potential	Not available.

WATER UNLABELED (7732-18-5)	
Log Pow	No data available
Bioaccumulative potential	Not available.

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)	
Log Pow	0.81 at 25 °C (77 °F)
Bioaccumulative potential	Not available.

### 12.4. Mobility in soil

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER	
Ecology - soil	Not available.

WATER UNLABELED (7732-18-5)	
Ecology - soil	Not available.

2-BUTOXYETHANOL (1,1,2,2-D4, 99%) (1219803-96-9)	
Ecology - soil	Not available.

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

Other adverse effects : Not available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

## SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

### 14.1. UN number

Not applicable

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### 14.2. UN proper shipping name

Not applicable

### 14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : Not dangerous goods.

#### Overland transport

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### 14.4. Environmental hazards

Other information : No supplementary information available.

### 14.5. Special precautions for user

Special transport precautions : Not dangerous goods.

### 14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

No additional information available

### 15.2. International regulations

#### CANADA

##### 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER

Listed on the Canadian DSL (Domestic Substances List) inventory.

#### 15.2.1. National regulations

No additional information available

### 15.3. US State regulations

#### 2-BUTOXYETHANOL (1,1,2,2-D4, 99%) 1000 UG/ML IN WATER()

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) List  
U.S. - New Jersey - Right to Know Hazardous Substance List  
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4

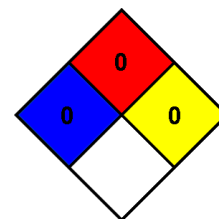
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Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
H302	Harmful if swallowed
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R36/38	Irritating to eyes and skin
Xi	Irritant
Xn	Harmful

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.  
NFPA fire hazard : 0 - Materials that will not burn.  
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



### HMIS III Rating

Health : 0 Minimal Hazard - No significant risk to health  
Flammability : 0 Minimal Hazard  
Physical : 0 Minimal Hazard

### CIL Mixture SDS

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*