



## Safety Data Sheet

In accordance with the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014

Date of issue: 22/02/2017  
Revision date: 26/01/2020  
Version: 0.1

## 2-Butoxyethanol

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

#### 1.1. Product identifier

Product form	: Substance
Trade name	: 2-Butoxyethanol
Chemical name	: 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve
EC Index-No.	: 603-014-00-0
EC-No.	: 203-905-0
CAS-No.	: 111-76-2

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

No additional information available

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

Bilim Endüstriyel Kimyasallar Sanayi ve Ticaret LTD.ŞTİ.  
İkitelli Organize Sanayi Bölgesi Mahallesi, Enkoop Caddesi, Enkoop Sanayi Sitesi No:8 Başakşehir  
İSTANBUL  
T 0212 486 36 38 – 39 - F 0212 486 36 43  
[info@bilimkima.com](mailto:info@bilimkima.com) - [www.bilimkimya.com](http://www.bilimkimya.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzısıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.

### SECTION 2: Hazards identification

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

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Acute toxicity (oral), Category 4 H302

Acute toxicity (dermal), Category 4 H312

Acute toxicity (inhal.), Category 4 H332

Acute toxicity (inhalation:vapour) Category 4 H332

Skin corrosion/irritation, Category 2 H315

Serious eye damage/eye irritation, Category 2 H319

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : Harmful in contact with skin. Harmful if inhaled. Harmful if swallowed. Causes skin irritation. Causes serious eye irritation.



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## 2.2. Label elements

Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.

Hazard pictograms (SEA) :



GHS07

Signal word (SEA) :

Warning

Hazard statements (SEA) :

H302+H312+H332 - Harmful if swallowed, in contact with skin or if inhaled  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.

Precautionary statements (SEA) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 - Wash hands, forearms and face with soap and water thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 - IF SWALLOWED: Immediately dial 114 for the NATIONAL POISON CENTER or call a doctor/physician.  
P301+P312 - IF SWALLOWED: If you feel unwell, immediately dial 114 for the NATIONAL POISON CENTER or call a doctor/physician.  
P302+P352 - IF ON SKIN: Wash with plenty of water/...  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P312 - If you feel unwell, dial 114 for the NATIONAL POISON CENTER or call a doctor/physician.  
P321 - Specific treatment (see on this label).  
P322 - Specific measures (see on this label).  
P330 - Rinse mouth.  
P332+P313 - If skin irritation occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P362+P364 - Take off contaminated clothing and wash it before reuse.  
P363 - Wash contaminated clothing before reuse.  
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

## 2.3. Other hazards

Other hazards not contributing to the classification

No additional information available

## SECTION 3: Composition/information on ingredients

## 3.1. Substances

Chemical name : 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve

Name	Product identifier	%	Classification according to Classification, Labelling and Packaging of Substances and Mixtures (SEA) Regulation published in the Official Journal numbered 28848 on December 11, 2013.
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	(CAS-No.) 111-76-2 (EC-No.) 203-905-0 (EC Index-No.) 603-014-00-0	100	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319



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Full text of H-statements: see section 16

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a poison center or a doctor if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : 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.
- First-aid measures after ingestion : Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Eye irritation.

#### 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. Dry powder. Foam. Carbon dioxide.

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

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

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

- Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapours/spray.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

- Methods for cleaning up : Take up liquid spill into absorbent material.
- Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray.



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Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store in a well-ventilated place. Keep cool.

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

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Hand protection : Protective gloves  
Eye protection : Safety glasses  
Skin and body protection : Wear suitable protective clothing  
Respiratory protection : [In case of inadequate ventilation] wear respiratory protection.  
Environmental exposure controls : Avoid release to the environment.

### SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Appearance : Liquid.  
Colour : Colourless  
Odour : No data available  
Odour threshold : 0.48 ppm  
pH : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : Not applicable  
Freezing point : -75 °C  
Boiling point : 169 °C  
Flash point : No data available  
Auto-ignition temperature : 238 °C  
Decomposition temperature : 127.7 °C  
Flammability (solid, gas) : Not applicable  
Vapour pressure : 0.8 mbar  
Relative vapour density at 20 °C : No data available  
Relative density : No data available  
Density : 0.902 g/ml  
Solubility : No data available  
Log Pow : No data available  
Viscosity, kinematic : 3.65 mm<sup>2</sup>/s  
Viscosity, dynamic : No data available  
Explosive properties : No data available  
Oxidising properties : No data available  
Explosive limits : No data available



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## 2-Butoxyethanol

## 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

## 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

## 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

## 10.5. Incompatible materials

No additional information available

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled. Harmful if inhaled.

2-Butoxyethanol (111-76-2)	
LD50 oral rat	1746 mg/kg
LD50 dermal rabbit	435 µg/kg
ATE (SEA) (oral)	1746 mg/kg bodyweight
ATE (SEA) (dermal)	0.435 mg/kg bodyweight
ATE (SEA) (Gases)	4500 ppmv/4h
ATE (SEA) (vapours)	11 mg/l/4h
ATE (SEA) (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

2-Butoxyethanol (111-76-2)	
Viscosity, kinematic	3.65 mm <sup>2</sup> /s

## SECTION 12: Ecological information

## 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified.



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## 2-Butoxyethanol

Hazardous to the aquatic environment, long-term (chronic) : Not classified

**2-Butoxyethanol (111-76-2)**

LC50 fish 1	1650 - 1700 mg/l
LC50 fish 2	1490 mg/l
EC50 Daphnia 1	835 mg/l

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential****2-Butoxyethanol (111-76-2)**

Bioaccumulative potential	No additional information available
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**12.4. Mobility in soil****2-Butoxyethanol (111-76-2)**

Mobility in soil	No additional information available
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**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**






Ozone : Not classified  
Other adverse effects : No additional information available

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
2810	2810	2810	2810	2810
<b>14.2. UN proper shipping name</b>				
TOXIC LIQUID, ORGANIC, N.O.S.	TOXIC LIQUID, ORGANIC, N.O.S.	Toxic liquid, organic, n.o.s.	TOXIC LIQUID, ORGANIC, N.O.S.	TOXIC LIQUID, ORGANIC, N.O.S.
<b>Transport document description</b>				
UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, I, (C/E)	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, I	UN 2810 Toxic liquid, organic, n.o.s., 6.1, I	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, I	UN 2810 TOXIC LIQUID, ORGANIC, N.O.S., 6.1, I
<b>14.3. Transport hazard class(es)</b>				
6.1	6.1	6.1	6.1	6.1
				
<b>14.4. Packing group</b>				
I	I	I	I	I
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				



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### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR)	: T1
Special provisions (ADR)	: 274, 315, 614
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E5
Packing instructions (ADR)	: P001
Mixed packing provisions (ADR)	: MP8, MP17
Portable tank and bulk container instructions (ADR)	: T14
Portable tank and bulk container special provisions (ADR)	: TP2, TP27
Tank code (ADR)	: L10CH
Tank special provisions (ADR)	: TU14, TU15, TE19, TE21
Vehicle for tank carriage	: AT
Transport category (ADR)	: 1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV1, CV13, CV28
Special provisions for carriage - Operation (ADR)	: S9, S14
Hazard identification number (Kemler No.)	: 66
Orange plates	: 

Tunnel restriction code (ADR) : C/E

#### - Transport by sea

Special provisions (IMDG)	: 274, 315
Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E5
Packing instructions (IMDG)	: P001
Tank instructions (IMDG)	: T14
Tank special provisions (IMDG)	: TP2, TP13, TP27
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-A
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Toxic if swallowed, by skin contact or by inhalation.

#### - Air transport

PCA Excepted quantities (IATA)	: E5
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 652
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 658
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A4, A137
ERG code (IATA)	: 6L



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**- Inland waterway transport**

Classification code (ADN)	: T1
Special provisions (ADN)	: 274, 315, 614, 802
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E5
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, TOX, A
Ventilation (ADN)	: VE02
Number of blue cones/lights (ADN)	: 2

**- Rail transport**

Classification code (RID)	: T1
Special provisions (RID)	: 274, 315, 614
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E5
Packing instructions (RID)	: P001
Mixed packing provisions (RID)	: MP8, MP17
Portable tank and bulk container instructions (RID)	: T14
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L10CH
Special provisions for RID tanks (RID)	: TU14, TU15, TU38, TE21, TE22
Transport category (RID)	: 1
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW28, CW31
Hazard identification number (RID)	: 66

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

Not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. National regulations**

This product doesn't contain any substances that is controlled or prohibited for use according to the Regulation for Reduction of Ozone Depleting Substances published in the Official Journal numbered 27052 on November 12, 2008.

**SECTION 16: Other information**

Data sources : Annex VI.

Full text of H-statements

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
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.





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## 2-Butoxyethanol

H332

Harmful if inhaled.

### Safety Data Sheet author's

Name : Emel ÇAVDAR  
Certificate number : KDU-A-0053  
Certificate valid until : 25/10/2024  
Contact information : emel@bilimkimya.com

*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.*