

SAFETY DATA SHEET

2-BUTOXYETHANOL

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name 2-BUTOXYETHANOL
Synonyms, Trade Names BUTYL CELLOSOLVE SOLVENT, BUTYL GLYCOL, BUTYL GLYCOL ETHER , BGE, BG, MS-1
REACH Registration Number 01-2119475108-36
CAS-No. 111-76-2
EU Index No. 603-014-00-0
EC No. 203-905-0

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

Identified uses Chemical

1.3. Details of the supplier of the safety data sheet

Supplier: Central Chemical Supplies Ltd
44 Hall Road
Donaghcloney
Craigavon
Northern Ireland
BT66 7LJ
+44 2838 881936
+44 2838 882335
info@ccsni.co.uk

1.4. Emergency telephone number

Emergency Contact Number +44 2838 881936
(Office Hours)
Emergency Contact Number +44 7872 501842
(Outside Office Hours)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Acute Tox. 4 - H302;Acute Tox. 4 - H312;Acute Tox. 4 - H332;Skin Irrit. 2 - H315;Eye Irrit. 2 - H319
Environment	Not classified.

Classification (67/548/EEC) Xn;R20/21/22 Xi;R36/38

The Full Text for all R-Phrases is Hazard Statements are Displayed in Section 16

2.2. Label elements

EC No. 203-905-0
Label In Accordance With (Ec) No. 1272/2008

2-BUTOXYETHANOL



Signal Word	Warning	
Hazard Statements	H302	Harmful if swallowed.
	H312	Harmful in contact with skin.
	H315	Causes skin irritation.
	H319	Causes serious eye irritation.
	H332	Harmful if inhaled.
Precautionary Statements	P280	Wear protective gloves/protective clothing/eye protection/face protection.
	P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
	P302+352	IF ON SKIN: Wash with plenty of soap and water.
	P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
	P313	Get medical advice/attention.
	P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

REACH Registration Number	01-2119475108-36
CAS-No.	111-76-2
EU Index No.	603-014-00-0
EC No.	203-905-0

Composition Comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation.

Move the exposed person to fresh air at once. Get medical attention.

Ingestion

Provide rest, warmth and fresh air. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention.

Skin Contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye Contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

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

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Inhalation.

Irritation of nose, throat and airway. In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.

Ingestion

May cause stomach pain or vomiting.

Skin Contact

Prolonged contact may cause redness, irritation and dry skin.

Eye Contact

May cause severe irritation to eyes.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific Hazards

Oxides of: Carbon.

5.3. Advice for firefighters

Protective Measures In Fire

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Absorb with inert, damp, non-combustible material, then flush area with water. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid inhalation of vapours/spray and contact with skin and eyes. Provide good ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

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Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
2-BUTOXYETHANOL	WEL	25		50		

WEL = Workplace Exposure Limit.

Ingredient Comments

WEL = Workplace Exposure Limits

DNEL	Industry	Dermal	Short Term	89 mg/kg/day
DNEL	Industry	Inhalation.	Short Term	663 mg/m ³
DNEL	Industry	Dermal	Long Term	75 mg/kg/day
DNEL	Industry	Inhalation.	Long Term	98 mg/m ³
DNEL	Consumer	Dermal	Short Term	44.5 mg/kg/day
DNEL	Consumer	Inhalation.	Short Term	426 mg/m ³
DNEL	Consumer	Oral	Short Term	13.4 mg/kg/day
DNEL	Consumer	Dermal	Long Term	38 mg/kg/day
DNEL	Consumer	Oral	Long Term	3.2 mg/kg/day
PNEC	Freshwater	8.8	mg/l	
PNEC	Marinewater	8.8	mg/l	
PNEC	Sediment	8.14	mg/kg	
PNEC	Soil	2.8	mg/kg	

8.2. Exposure controls

Protective Equipment



Process Conditions

Provide eyewash, quick drench.

Engineering Measures

Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Respiratory Equipment

If ventilation is insufficient, suitable respiratory protection must be provided.

Hand Protection

Butyl rubber gloves are recommended.

Eye Protection

Wear approved safety goggles.

Other Protection

Wear rubber apron. Wear rubber footwear.

Hygiene Measures

Wash at the end of each work shift and before eating, smoking and using the toilet. No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid
Colour	Colourless
Odour	Characteristic
Solubility	Miscible with water
Initial Boiling Point and Boiling Range:	168 - 172
Melting Point (°C)	-70 - -75

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Bulk Density	899 - 902 kg/m ³
Vapour Pressure	0.117 kPa 25
pH-Value, Conc. Solution	~7
Viscosity	3.2 - 3.3 mPas 20
Solubility Value (G/100G H ₂ O@20°C)	100
Flash Point (°C)	65 - 67
Auto Ignition Temperature (°C)	224 - 232
Flammability Limit - Lower(%)	1.1 - 1.3
Flammability Limit - Upper(%)	10.6
Partition Coefficient (N-Octanol/Water)	~0.8

9.2. Other information

Mol. Weight	118.2
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Hazardous Polymerisation

Will not polymerise.

10.4. Conditions to avoid

Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials To Avoid

Strong acids. Strong oxidising substances.

10.6. Hazardous decomposition products

Oxides of: Carbon.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxic Dose 1 - LD 50 >200-<2000 mg/kg (oral rat)

Toxic Conc. - LC 50 2.21 - 2.39 mg/l/4h (inh-rat)

Inhalation

Harmful by inhalation.

Ingestion.

Harmful if swallowed.

Skin Contact

Harmful in contact with skin. Irritating to skin.

Eye Contact

Irritating to eyes.

Health Warnings

CNS depressant.

Target Organs

Skin Eyes Respiratory system, lungs

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity:

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

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12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l	820 - 1490
EC 50, 48 Hrs, Daphnia, mg/l	835 - 1550
IC 50, 72 Hrs, Algae, mg/l	1840

12.2. Persistence and degradability

Degradability:

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative Potential:

The product does not contain any substances expected to be bioaccumulating.

Partition Coefficient	Partition coefficient
	(n-octanol/water): ~0.8

12.4. Mobility in soil

Mobility:

The product is soluble in water.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

General Information

Do not puncture or incinerate even when empty. Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

General	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
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14.1. UN number

No information required.

14.2 UN Proper shipping name

No information required.

14.3 Transport hazard class(es)

No information required.

14.4. Packing group

No information required.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

14.6. Special precautions for user

No information required.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

Guidance Notes

CHIP for everyone HSG(108). Workplace Exposure Limits EH40.

EU Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Risk Phrases In Full

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R36/38 Irritating to eyes and skin.

Hazard Statements In Full

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