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ESTD.1976 MULTI CHEM YOUR CHEMICAL PARTNER

SAFETY DATA SHEET

BUTYL DIGLYCOL

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

1.1 Product identifier:	
CAS Number:	112-34-5
EC number:	203-961-6
1.2 SYNONYMS:	• 2-(2-butoxyethoxy)ethanol • ethanol, 2-(2-butoxyethoxy)- • BDGE • butyldigol • DEGBE • diethylene glycol monobutyl ether • diethyleneglycol butyl ether

SECTION 2: Hazards identification:

2.1 Classification of the substance or mixture:	Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation.
2.2 Label elements:	Labelling according to Regulation (EC) No 1272/2008 Serious Eye Damage/Eye Irritation (Category 2)
Hazard Pictograms:	
Signal Word:	Warning
Hazard statements:	**H319:** Causes serious eye irritation.
Precautionary Statements:	**P280:** Wear protective gloves/ protective clothing/ eye protection/ face protection. **P264:** wash thoroughly after handling **P337+P313:** If eye irritation persists: Get medical advice/attention.. **P305 + P351 + P338:** 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:	
Inhalation:	may cause respiratory irritation, dizziness, headache, or nausea.
Ingestion:	may cause nausea, vomiting, abdominal pain, and central nervous system depression.
Skin Contact:	may cause irritation, redness, and drying or cracking of the skin.
Eye contact:	Can cause severe irritation, redness, pain and discomfort.
Chronic Exposure:	may lead to skin dryness, dermatitis, liver or kidney damage, and potential effects on the central nervous system.
Aggravation of pre-existing conditions :	may aggravate pre-existing respiratory conditions (like asthma or COPD), skin disorders (such as dermatitis or eczema), and eye conditions.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterisation:	Substances
CAS No:	Description: 112-34-5 BUTYL DIGLYCOL
Identification number(s):	EC number: 203-961-6

SECTION 4: First aid measures

4.1 Description of first aid measures	
General information:	
After inhalation:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
After skin contact:	Wash with soap and water. Cover the irritated skin with an emollient. Consult a physician.

After eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes, Holding eyelids during flushing. Do not apply neutralizing agents. consult a physician.
After swallowing:	Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a physician.
4.2 Most important symptoms and effects, both acute and delayed:	Acute symptoms may include respiratory irritation, headache, dizziness, nausea, vomiting, skin irritation, and eye redness or discomfort. Delayed effects from prolonged or repeated exposure can include dermatitis, liver or kidney damage, and potential central nervous system effects such as fatigue or cognitive disturbances.
4.3 Indication of any immediate medical attention and special treatment needed:	Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media:	Carbon dioxide. Water spray. Alcohol-resistant foam. BC powder
5.2 Special hazards arising from the substance or mixture:	Carbon dioxide, carbon monoxide.
5.3 Advice for firefighters:	Wear fully protective suit, safety glasses and respiratory device . Cool tanks/drums with water spray/remove them into safety.
5.4 further information:	no data available

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SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	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 vapours accumulating to form explosive concentrations. Avoid dust accumulation. Seek medical attention.
6.2 Environmental precautions:	Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Avoid entering into waterways.
6.3 Methods and material for containment and cleaning up:	Take up liquid spill into absorbent material, e.g.: sand, earth, vermiculite, powdered limestone. Scoop absorbed substance into closing containers. Spill must not return in its original container. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling

SECTION 7: Handling and storage

7.1 Precautions for safe handling:	For use in are with adequate ventilation. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material Do not use in confined spaces. Electrostatic discharge protection. Minimize dust generation and accumulation. Avoid ingestion and inhalation.
7.2 Conditions for safe storage, including any incompatibilities:	Store in original containers. Keep containers securely sealed

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	Store in a cool, dry, well-ventilated area. (15°C-25°C) Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Store in a dry and dark area. . Provide for a tub to collect spills.
Requirements to be met by storerooms and receptacles:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
7.3 Specific end uses:	no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters	
Additional information about design of technical facilities:	A system of local and general exhaust is recommended.
8.2 Exposure controls	
Appropriate engineering controls	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment:	Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc.
General protective and hygienic measures:	Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment.
	Respiratory protection: Required.
Protection of hands:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands.

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	Eye protection: Required
Protection of Body:	Complete suit protecting against chemicals, Flame retardant antistatic protective clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties General Information	
Appearance: Form:	liquid
Colour:	colorless
Odour:	Mild
pH-value:	No data available
Melting point/Melting range:	-68°C
Boiling point/Boiling range:	No data available
Flammability (solid, gaseous):	Not flammable
Ignition temperature:	210°C
Decomposition temperature:	No data available
Self-igniting:	Not applicable
Flash point:	115°C
Danger of explosion:	No data available
Explosion limits: Lower:	0.7%
Explosion limits: Upper:	24.6%
Vapour pressure:	0.029 hPa
Density at 20 °C:	0.8-1.2
Relative density:	0.995
Vapour density:	5.6
Evaporation rate:	No data available
Solubility in / Miscibility with-·water at 20 °C:	Completely soluble
Partition coefficient:(n-octanol/water)	1
Viscosity:	0.006Pa
9.2 other information	
Specific conductivity:	125000 Ps/m
Surface tension:	0.0069 N/m at 20°C

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SECTION 10: Stability and reactivity

10.1 Reactivity	Temperature above flashpoint: higher fire/explosion hazard. Substance has neutral reaction.
10.2 Chemical stability	No data available.
10.3 Possibility of hazardous reactions	May form peroxides. Reacts violently with (strong) oxidizers. With (some) acids. And with (some) bases: (increased) risk of fire/explosion.
10.4 Conditions to avoid	Use earthed equipment. Keep away from naked flames/heat. At temp>flashpoint: use spark-/explosionproof appliances. Finely divided: sparkand explosionproof appliances. Finely divided: keep away from ignition sources/sparks.
10.5 Incompatible materials	Oxidizing agents, (strong) acids, (strong) bases, metals, peroxides.
10.6 Hazardous decomposition products	Reacts with (some) metals: release of highly flammable gases/vapours (hydrogen). Upon combustion CO and CO2 are formed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects	
Acute Toxicity:	**LD50** (Oral, Rat) : 2410 mg/kg **LD50** (Dermal, Rabbit) : 2764,g/kg **LC50** (Inhalation Rat) : 29 ppm (2 hrs)
Skin corrosion/Irritation:	Dermal(Rabbit): slightly irritating (24,48,72 hrs) Method: OECD 405
Serious eye damage/irritation:	Eye(Rabbit): highly irritating (24,48,72 hrs) Method: OECD 405
Respiratory damage/irritation:	Dermal(guinea pig): not sensitizing (24,48 hrs)
Ingestion:	No data available
Germ cell mutagenicity:	Found negative after tests.
Carcinogenicity:	No data available

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Reproductive toxicity:	Can cause decrease fertility and birth defects under high level exposure.
Specific target organ toxicity - single exposure:	Effects directly to central nervous system and respiratory system.
Specific target organ toxicity - repeated exposure:	Effects directly to liver kidneys and central nervous system
Aspiration hazard:	No data available
Signs and Symptoms of Exposure:	Refer section 2.3
11.2 Additional toxicological information	
Biodegradability:	Biodegradable in aerobic environments.

SECTION 12: Ecological information

12.1 Toxicity **Aquatic toxicity:**	**LC50** (lepomis macrochirus) : 1300 mg/l (96hrs) **LC50** (menidia sp) : 2000 mg/l (96hrs) **EC50** (daphnia magna) : 4950 mg/l (48hrs) **LC50** (Americamysis bahia) : 13415 mg/l (96hrs) **EC50** (DESMODESMUS SUBSPICATUS) : >100 mg/l (96hrs) **EC10** : >1995 mg/l (30 mins) Not harmful to fishes (LC50(96h) >1000 mg/l) Not harmful to invertebrates (EC50 (48h) > 1000 mg/l) Practically non-toxic to algae (EC50 >100 mg/l) Not harmful to bacteria (EC50 >1000 mg/l)
12.2 Persistence and degradability:	Readily biodegradable in water.
12.3 Bioaccumulative potential:	Low potential
12.4 Mobility in soil:	No data available
12.5 Other adverse effects:	No data available

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SECTION 13: Disposal considerations

13.1 Waste treatment methods	
Uncleaned packaging Recommendation:	dispose of in accordance with local hazardous waste regulations
Recommended cleansing agents:	Mild Soap and Water, Isopropyl Alcohol (IPA), Degreasers or Industrial Solvents**,** Neutral Detergents**,** Specialized Cleaners.

SECTION 14: Transport information

14.1 UN-Number · ADR, ADN, IMDG, IATA:	UN 3093
14.2 UN proper shipping name · ADR, ADN, IMDG, IATA:	BUTYL DIGLYCOL
14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA :	3
14.4 Packing group · ADR, IMDG, IATA:	3
14.5 Environmental hazards:	No data available
14.6 Special precautions for user:	Handle responsibly.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Directive 2012/18/EU	Directive 2012/18/EU, under that this substance is not classified in listed substance.
Named dangerous substances:	This substance is not listed in the annex 1 to the directive.
15.2 Chemical safety assessment:	Chemical assessment has been carried out under **REACH** regulation.

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's

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