MATERIAL SAFETY DATA SHEET

Diethylene glycol

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1	**Product identifiers**		
	Product name	:	Diethylene glycol
	Brand	:	LABORT
	CAS-No.	:	111-46-6
1.2	**Relevant identified uses of the substance or mixture and uses advised against**		
	Identified uses	:	Laboratory chemicals, Manufacture of substances
1.3	**Details of the supplier of the safety data sheet**		
	LABORT FINE CHEM PVT LTD. 703-704 ICON BUSINESS CENTRE, OPP. CENTRAL MALL, NR. VALENTINE CINEMA, DUMAS ROAD, SURAT - 395007, (GUJARAT), INDIA. **PH:** 0091-261-2725761; 2725388 **FAX:** 0091-261-2725388 **E MAIL:**info@laboratorychemical.net **WEBSITE:** www.laboratorychemical.net		
1.4	**Emergency telephone number**		
	Emergency Phone #	:	**091-261-2725388**
SECTION 2: Hazards identification			
2.1	**Classification of the substance or mixture**		
	Classification according to Regulation (EC) No 1272/2008 Acute toxicity, Oral (Category 4), H302 Specific target organ toxicity - repeated exposure, Oral (Category 2), Kidney, H373		
2.2	**Label elements**		
	Labelling according Regulation (EC) No 1272/2008		
	Pictogram	:	
	Signal word	:	Warning
	Hazard statement(s)		
	H302 Harmful if swallowed. H373 May cause damage to organs (Kidney) through prolonged or repeated exposure if swallowed.		
	Precautionary statement(s)		
	P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.		

	P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.		
	Supplemental Hazard statements		
	none		
2.3	**Other hazards**		
	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.		
SECTION 3: Composition/information on ingredients			
3.1	**Substances**		
	Synonyms	:	2,2′-Oxydiethanol Bis(2-hydroxyethyl) ether Diglycol 2-Hydroxyethyl ether
	Formula	:	C4H10O3
	Molecular weight	:	106,12 g/mol
	CAS-No.	:	111-46-6
	EC-No.	:	203-872-2
	Hazardous ingredients according to Regulation (EC) No 1272/2008		
	Component	Classification	Concentration
	Diethylene glycol		
		Acute Tox. 4; H302	<= 100 %
SECTION 4: First aid measures			
4.1	**Description of first aid measures**		
	General advice Consult a physician. Show this safety data sheet to the doctor in attendance. **If inhaled** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. **In case of skin contact** Wash off with soap and plenty of water. Consult a physician. **In case of eye contact** Flush eyes with water as a precaution. **If swallowed** 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** The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11		
4.3	**Indication of any immediate medical attention and special treatment needed** No data available		
SECTION 5: Firefighting measures			
5.1	**Extinguishing media**		

	Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	**Special hazards arising from the substance or mixture** Carbon oxides
5.3	**Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.
5.4	**Further information** Cool containers/tanks with water spray.
SECTION 6: Accidental release measures	
6.1	**Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. For personal protection see section 8.
6.2	**Environmental precautions** Do not let product enter drains.
6.3	**Methods and materials for containment and cleaning up** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.
6.4	**Reference to other sections** For disposal see section 13.
SECTION 7: Handling and storage	
7.1	**Precautions for safe handling** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. For precautions see section 2.2.
7.2	**Conditions for safe storage, including any incompatibilities** 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. Store in cool place. hygroscopic Heat sensitive. Store under inert gas.
7.3	**Specific end use(s)** Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
SECTION 8: Exposure controls/personal protection	
8.1	**Control parameters**
	Components with workplace control parameters
8.2	**Exposure control**
	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** **Eye/face protection** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). **Skin protection** 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 and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Full contact Material: Nitrile rubber

	Minimum layer thickness: 0,11 mm Break through time: 480 min Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min **Body Protection** Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. **Respiratory protection** Where risk assessment shows air-purifying respirators are appropriate use a fullface respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). **Control of environmental exposure** Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1	**Information on basic physical and chemical properties**	
	Appearance Form	Form: viscous liquid Colour: colourless
	Odour	slight
	Odour Threshold	No data available
	pH	5,0 - 8 at 500 g/l at 20 °C
	Melting point/freezing point	Melting point/range: -10 °C - lit.
	Initial boiling point and boiling range	245 °C - lit.
	Flash point	143 °C - closed cup
	Evaporation rate	< 0,01 - Butyl acetate
	Flammability (solid, gas)	No data available
	Upper/lower flammability or explosive limits	Upper explosion limit: 12,3 %(V) Lower explosion limit: 2 %(V)
	Vapour pressure	0,008 hPa at 25 °C
	Vapour density	3,66 - (Air = 1.0)
	Relative density	1,118 g/cm3 at 25 °C
	Water solubility	completely miscible
	Partition coefficient: noctanol/water	log Pow: -2,0
	Auto-ignition temperature	372 °C at 1.013,25 hPa
	Decomposition temperature	No data available
	Viscosity	No data available

	Explosive properties	No data available
	Oxidizing properties	No data available
9.2	**Other safety information**	
	Surface tension	48,5 mN/m at 25 °C
	Relative vapour density	3,66 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1	**Reactivity** No data available
10.2	**Chemical stability** Stable under recommended storage conditions.
10.3	**Possibility of hazardous reactions** No data available
10.4	**Conditions to avoid** Heating in air. Exposure to moisture
10.5	**Incompatible materials** Strong oxidizing agents, Strong acids, Zinc
10.6	**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

11.1	**Information on toxicological effects** **Acute toxicity** No data available LD50 Dermal - Rabbit - 11.890 mg/kg Remarks: (RTECS) **Skin corrosion/irritation** Skin - Rabbit Result: No skin irritation Remarks: (IUCLID) **Serious eye damage/eye irritation** Eyes - Rabbit Result: No eye irritation Remarks: (IUCLID) **Respiratory or skin sensitisation** Maximisation Test - Guinea pig Result: negative (Directive 67/548/EEC, Annex V, B.6.) **Germ cell mutagenicity** Ames test Escherichia coli/Salmonella typhimurium Result: negative OECD Test Guideline 474 Mouse - male - Bone marrow Result: negative **Carcinogenicity** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

	Reproductive toxicity No data available **Specific target organ toxicity - single exposure** No data available **Specific target organ toxicity - repeated exposure** No data available **Aspiration hazard** No data available **Additional Information** Repeated dose toxicity - Rat - male and female - Oral - 28 Days - No observed adverse effect level - 936 mg/kg - Lowest observed adverse effect level - 40.000 mg/kg RTECS: ID5950000 Symptoms and signs of poisoning are: Confusion., Dizziness, Kidney injury may occur., Unconsciousness, Convulsions, Nausea, Headache, Vomiting, Pulmonary edema. Effects may be delayed. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.	
SECTION 12: Ecological information		
12.1	**Toxicity**	
	Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 75.200 mg/l - 96 h Remarks: (ECHA)
	Toxicity to bacteria	
12.2	**Persistence and degradability** No data available	
	Theoretical oxygen demand	1.510 mg/g Remarks: (Lit.)
	Ratio BOD/ThBOD	1,3 - 10 % Remarks: (Lit.)
12.3	**Bioaccumulative potential** No data available	
12.4	**Mobility in soil** No data available	
12.5	**Results of PBT and vPvB assessment** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	
12.6	**Other adverse effects** No data available	
SECTION 13: Disposal considerations		
13.1	**Waste treatment methods**	
	Product Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. **Contaminated packaging** Dispose of as unused product.	

SECTION 14: Transport information			
14.1	**UN number**		
	ADR/RID: -	IMDG: -	IATA: -
14.2	**UN proper shipping name**		
	ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods		
14.3	**Transport hazard class(es)**		
	ADR/RID: -	IMDG: -	IATA: -
14.4	**Packaging group**		
	ADR/RID: -	IMDG: -	IATA: -
14.5	**Environmental hazards**		
	ADR/RID: no	IMDG Marine pollutant: no	IATA: no
14.6	**Special precautions for user** No data available		
SECTION 15: Regulatory information			
15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture** This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.		
15.2	**Chemical safety assessment** For this product a chemical safety assessment was not carried out		
SECTION 16: Other information			
	Further information LABORT FINE CHEM PVT LTD. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. LABORT FINE CHEM PVT LTD. Makes no representations or warranties, either express or implied, including without limitation any warranties or merchantability, fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, LABORT FINE CHEM PVT LTD. will not be responsible for damages resulting from use of or reliance upon this information. Revised on: 27/10/20 Revision: 01		