MATERIAL SAFETY DATA SHEET

Diphenylamine

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1	**Product identifiers**		
	Product name	:	Diphenylamine
	Brand	:	LABORT
	CAS-No.	:	122-39-4
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 3), H301 Acute toxicity, Inhalation (Category 3), H331 Acute toxicity, Dermal (Category 3), H311 Specific target organ toxicity - repeated exposure (Category 2), H373 Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 1), H410		
2.2	**Label elements**		
	Labelling according Regulation (EC) No 1272/2008		
	Pictogram		
	Signal word		Danger
	Hazard statement(s) H301 + H311 + H331 Toxic if swallowed, in contact with skin or if inhaled.		

	H373 May cause damage to organs through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.
	Precautionary statement(s) P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. P302 + P352 + P312 IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell. P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor. P314 Get medical advice/ attention if you feel unwell.
	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	**:**	Diphenylamine
	Formula	**:**	C12H11N
	Molecular weight	**:**	169,22 g/mol
	CAS-No.	**:**	122-39-4

	Component	Classification	Concentration
	Diphenylamine	Acute Tox. 3; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H301, H331, H311, H373, H400, H410 M-Factor - Aquatic Acute: 10	<= 100 %

SECTION 4: First aid measures

4.1	**Description of first aid measures**
	General advice Consult a physician. Show this material 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 polyethylene glycol and afterwards with plenty of water. Take victim immediately to hospital. Take off all contaminated clothing immediately.Wash of **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, Nitrogen oxides (NOx)
5.3	**Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.
5.4	**Further information** No data available
SECTION 6: Accidental release measures	
6.1	**Personal precautions, protective equipment and emergency procedures** Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.
6.2	**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
6.3	**Methods and materials for containment and cleaning up** Pick up and arrange disposal without creating dust. Sweep up and shovel. 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 formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.
7.2	**Conditions for safe storage, including any incompatibilities** Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
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 Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
	Personal protective equipment
	Eye/face protection Tightly fitting safety goggles. Faceshield (8-inch minimum). 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 Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario **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 particle respirator type N99 (US) or type P2 (EN 143) 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** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

9.1	**Information on basic physical and chemical properties**	
	Appearance Form	Form: crystalline Color: White
	Odor	No data available
	Odour Threshold	No data available
	pH	No data available
	Melting point/freezing point	Melting point/range: 50 - 53 °C - lit.
	Initial boiling point and boiling range	302 °C - lit.
	Flash point	153 °C - closed cup
	Evaporation rate	No data available
	Flammability (solid, gas)	No data available

	Upper/lower flammability or explosive limits	No data available
	Vapour pressure	1 hPa at 108 °C
	Vapour density	No data available
	Relative density	1,160 g/cm3
	Water solubility	insoluble
	Partition coefficient: noctanol/water	log Pow: 3,5
	Auto-ignition temperature	No data available
	Decomposition temperature	No data available
	Viscosity	No data available
	Explosive properties	No data available
	Oxidizing properties	No data available
9.2	**Other safety information**	
	Bulk density Surface tension	0,61 g/l 39,3 mN/m at 60 °C

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** No data available
10.5	**Incompatible materials** Strong oxidizing agents, Strong acids
10.6	**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx) 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** LD50 Oral - Rat - 1.120 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Respiratory disorder Blood:Methemoglobinemia-Carboxyhemoglobin. **Skin corrosion/irritation** No data available **Serious eye damage/eye irritation** No data available **Respiratory or skin sensitization**

	No data available **Germ cell mutagenicity** No data available **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** May cause damage to organs through prolonged or repeated exposure. **Aspiration hazard** No data available **Additional Information** RTECS: JJ7800000 Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., Nausea, Vomiting, Liver injury may occur., Kidney injury may occur. 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	LC50 - Pimephales promelas (fathead minnow) - 3,79 mg/l - 96,0 h
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0,27 - 0,36 mg/l - 48 h
	Toxicity to algae	EC50 - Desmodesmus subspicatus (green algae) - 0,048 mg/l - 72 h IC50 - Desmodesmus subspicatus (green algae) - 1,5 mg/l - 72 h
12.2	**Persistence and degradability**	
	Biodegradability	Result: - According to the results of tests of biodegradability this product is not readily biodegradable. No data available
12.3	**Bioaccumulative potential** Cyprinus carpio (Carp)(Diphenylamine) Bioconcentration factor (BCF): 253	
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** Very toxic to aquatic life with long lasting 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. **Contaminated packaging** Dispose of as unused product.		
SECTION 14: Transport information			
14.1	**UN number**		
	ADR/RID: 3077	IMDG: 3077	IATA: 3077
14.2	**UN proper shipping name**		
	ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenylamine) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenylamine) IATA: Environmentally hazardous substance, solid, n.o.s. (Diphenylamine)		
14.3	**Transport hazard class(es)**		
	ADR/RID: 9	IMDG: 9	IATA: 9
14.4	**Packaging group**		
	ADR/RID: III	IMDG: III	IATA: III
14.5	**Environmental hazards**		
	ADR/RID: yes	IMDG Marine pollutant: yes	IATA: yes
14.6	**Special precautions for user** **Further information** EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.		
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: 22/03/21 Revision: 01		