



## MATERIAL SAFETY DATA SHEET

### ACETIC ACID

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
<b>1.1</b>	<b>Product identifiers</b>		
	Product name	:	Acetic acid
	Brand	:	LABORT
	CAS-No.	:	64-19-7
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against</b>		
	Identified uses	:	Laboratory chemicals, Industrial
<b>1.3</b>	<b>Details of the supplier of the safety data sheet</b>		
	<b>LABORT FINE CHEM PVT LTD.</b> 703-704 ICON BUSINESS CENTRE, OPP. CENTRAL MALL, NR. VALENTINE CINEMA, DUMAS ROAD, SURAT - 395007, (GUJARAT), INDIA.  <b>PH:</b> 0091-261-2725761; 2725388 <b>FAX:</b> 0091-261-2725388  <b>E MAIL:</b> <a href="mailto:info@laboratorychemical.net">info@laboratorychemical.net</a> <b>WEBSITE:</b> <a href="http://www.laboratorychemical.net">www.laboratorychemical.net</a>		
<b>1.4</b>	<b>Emergency telephone number</b>		
	Emergency Phone #	:	<b>091-261-2725388</b>
SECTION 2: Hazards identification			
<b>2.1</b>	<b>Classification of the substance or mixture</b>		
	<b>Classification according to Regulation (EC) No 1272/2008</b> Flammable liquids (Category 3), H226 Skin corrosion (Sub-category 1B), H314 Serious eye damage (Category 1), H318		
<b>2.2</b>	<b>Label elements</b>		
	<b>Labelling according Regulation (EC) No 1272/2008</b>		
	Pictogram	:	
	Signal word	:	Danger
	<b>Hazard statement(s)</b>		
	H226 Flammable liquid and vapour. H314 Causes severe skin burns and eye damage.		
	<b>Precautionary statement(s)</b>		

	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.		
	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	:	Glacial Acetic acid
	Formula	:	C2H4O2
	Molecular weight	:	60.05 g/mol
	CAS-No.	:	64-19-7
	EC-No.	:	200-580-7
Hazardous ingredients according to Regulation (EC) No 1272/2008			
	Component	Classification	Concentration
	Acetic acid	Flam. Liq. 3; Skin Corr. 1A; Eye Dam. 1; H226, H314, H318 Concentration limits: >= 90 %: Skin Corr. 1A, H314; 25 - < 90 %: Skin Corr. 1B, H314; 10 - < 25 %: Skin Irrit. 2, H315; 10 - < 25 %: Eye Irrit. 2, H319; 10 - < 25 %: Eye Irrit. 2, H319; 10 - < 25 %: Skin Irrit. 2, H315; 25 - < 90 %: Skin Corr. 1B, H314; >= 90 %: Skin Corr. 1A, H314; >= 90 %: Flam. Liq. 3, H226;	<= 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.		
	In case of skin contact Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.		
	In case of eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.		

	<b>If swallowed</b> Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician
4.2	<b>Most important symptoms and effects, both acute and delayed</b> The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
4.3	<b>Indication of any immediate medical attention and special treatment needed</b> No data available
<b>SECTION 5: Firefighting measures</b>	
5.1	<b>Extinguishing media</b> <b>Suitable extinguishing media</b> Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
5.2	<b>Special hazards arising from the substance or mixture</b> Carbon oxides
5.3	<b>Advice for firefighters</b> Wear self-contained breathing apparatus for firefighting if necessary.
5.4	<b>Further information</b> Use water spray to cool unopened containers.
<b>SECTION 6: Accidental release measures</b>	
6.1	<b>Personal precautions, protective equipment and emergency procedures</b> Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.
6.2	<b>Environmental precautions</b> Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
6.3	<b>Methods and materials for containment and cleaning up</b> Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet brushing and place in container for disposal according to local regulations (see section 13).
6.4	<b>Reference to other sections</b> For disposal see section 13.
<b>SECTION 7: Handling and storage</b>	
7.1	<b>Precautions for safe handling</b> Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.
7.2	<b>Conditions for safe storage, including any incompatibilities</b> 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. Recommended storage temperature: 2 - 25°C.
7.3	<b>Specific end use(s)</b> Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
<b>SECTION 8: Exposure controls/personal protection</b>	
8.1	<b>Control parameters</b>  Components with workplace control parameters
8.2	<b>Exposure control</b>  <b>Appropriate engineering controls</b> Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.  <b>Personal protective equipment</b>  <b>Eye/face protection</b>

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: butyl-rubber

Minimum layer thickness: 0,6 mm

Break through time: 32 min

Splash contact

Material: Nature latex/chloroprene

Minimum layer thickness: 0,6 mm

Break through time: 41 min

#### **Body Protection**

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., 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**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### **SECTION 9: Physical and chemical properties**

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

Appearance Form	Form: Liquid
Colour	Colourless
Odour	No data available
Odour Threshold	No data available
pH	2,4 at 60,05 g/l
Melting point/freezing point	16.2°C
Initial boiling point and boiling range	117 - 118°C
Flash point	40°C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 19.9%(V) Lower explosion limit: 4%(V)

	Vapour pressure	73.3 hPa at 50°C 15.2 hPa at 20.0°C
	Vapour density	No data available
	Relative density	1.049 g/mL at 25 °C
	Water solubility	completely miscible
	Partition coefficient: noctanol/water	log Pow: -0.17
	Auto-ignition temperature	485°C
	Decomposition temperature	No data available
	Viscosity	No data available
	Explosive properties	No data available
	Oxidizing properties	No data available
<b>9.2</b>	<b>Other safety information</b>	
	Surface tension	28,8 mN/m at 10°C
<b>SECTION 10: Stability and reactivity</b>		
<b>10.1</b>	<b>Reactivity</b> No data available	
<b>10.2</b>	<b>Chemical stability</b> Stable under recommended storage conditions.	
<b>10.3</b>	<b>Possibility of hazardous reactions</b> No data available	
<b>10.4</b>	<b>Conditions to avoid</b> Heat, flames and sparks.	
<b>10.5</b>	<b>Incompatible materials</b> Oxidizing agents, Soluble carbonates and phosphates, Hydroxides, Metals, Peroxides, permanganates, for example potassium permanganate, Amines, Alcohols, Nitric acid	
<b>10.6</b>	<b>Hazardous decomposition products</b> Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5	
<b>SECTION 11: Toxicological information</b>		
<b>11.1</b>	<b>Information on toxicological effects</b> <b>Acute toxicity</b> LD50 Oral - Rat - 3.310 mg/kg Remarks: (RTECS) LC50 Inhalation - Mouse - 4 h - 2.819 mg/l Remarks: (RTECS) <b>Skin corrosion/irritation</b> Skin - Rabbit Result: Causes burns. - 4 h (OECD Test Guideline 404) Remarks: (IUCLID) <b>Serious eye damage/eye irritation</b> Eyes - Rabbit Result: Causes burns. - 4 h (OECD Test Guideline 405) Remarks: (IUCLID) Causes serious eye damage. <b>Respiratory or skin sensitisation</b>	

No data available

**Germ cell mutagenicity**

Ames test

Salmonella typhimurium

Result: negative

Mutagenicity (mammal cell test): chromosome aberration.

Chinese hamster ovary cells

Result: negative

Mutagenicity (micronucleus test)

Rat - male and female - 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**

RTECS: AF1225000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Ingestion or inhalation of concentrated acetic acid causes damage to tissues of the respiratory and digestive tracts. Symptoms include: hematemesis, bloody diarrhea, edema and/or perforation of the esophagus and pylorus, pancreatitis, hematuria, anuria, uremia, albuminuria, hemolysis, convulsions, bronchitis, pulmonary edema, pneumonia, cardiovascular collapse, shock, and death. Direct contact or exposure to high concentrations of vapor with skin or eyes can cause: erythema, blisters, tissue destruction with slow healing, skin blackening, hyperkeratosis, fissures, corneal erosion, opacification, iritis, conjunctivitis, and possible blindness.

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	semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 1.000 mg/l - 96 h (OECD Test Guideline 203)
	Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h (OECD Test Guideline 202)
	Toxicity to algae	static test EC50 - Skeletonema costatum - > 1.000 mg/l - 72 h (ISO 10253)
	Toxicity to bacteria	EC5 - Pseudomonas putida - 2.850 mg/l - 16 h Remarks: neutral(maximum permissible toxic concentration)(Lit.) microtox test EC50 - Photobacterium phosphoreum - 11 mg/l – 15 min Remarks: (IUCLID)
12.2	Persistence and degradability	
	Biodegradability	Result: 99 % - Readily biodegradable. (OECD Test Guideline 301D) Remarks: (HSDB) Result: 95 % - Readily eliminated from water (OECD Test Guideline 302B)

	Biochemical Oxygen Demand (BOD)	880 mg/g Remarks: (Lit.)	
	Ratio BOD/ThBOD	76 % Remarks: (IUCLID)	
12.3	<b>Bioaccumulative potential</b> No data available.		
12.4	<b>Mobility in soil</b> No data available		
12.5	<b>Results of PBT and vPvB assessment</b> 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	<b>Other adverse effects</b> No data available		
SECTION 13: Disposal considerations			
13.1	<b>Waste Product</b> 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.  <b>Contaminated packaging</b> Dispose of as unused product.		
SECTION 14: Transport information			
14.1	<b>UN number</b>		
	ADR/RID: 2789	IMDG: 2789	IATA: 2789
14.2	<b>UN proper shipping name</b>		
	ADR/RID: Acetic acid -Glacial IMDG: Acetic acid -Glacial IATA: Acetic acid -Glacial		
14.3	<b>Transport hazard class(es)</b>		
	ADR/RID: 8 (3)	IMDG: 8 (3)	IATA: 8 (3)
14.4	<b>Packaging group</b>		
	ADR/RID: II	IMDG: II	IATA: II
14.5	<b>Environmental hazards</b>		
	ADR/RID: No	IMDG Marine pollutant: No	IATA: No
14.6	<b>Special precautions for user</b> No data available		
SECTION 15: Regulatory information			
15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b> This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.		
15.2	<b>Chemical safety assessment</b> No data available		
SECTION 16: Other information			
	<b>Further information</b> 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		

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