MATERIAL SAFETY DATA SHEET

Potassium nitrate

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1	**Product identifiers**		
	Product name	:	Potassium nitrate
	Brand	:	LABORT
	CAS-No.	:	7757-79-1
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**		
	Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008. Oxidizing solids (Category 3), H272		
2.2	**Label elements**		
	Labelling according Regulation (EC) No 1272/2008		
	Pictogram		
	Signal word: Warning		
	Hazard statement(s) H272 May intensify fire; oxidizer.		
	Precautionary statement(s) P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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**			
	Formula	**:**	KNO3	
	Molecular weight	**:**	10110 g/mol	
	CAS-No.	**:**	7757-79-1	
	EC-No.	**:**	231-818-8	
	Component	**Classification**		**Concentration**
	Potassium nitrate	Not hazardous		>98% - <100%
	No components need to be disclosed according to the applicable regulations.			

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** Dry powder Dry sand
5.2	**Special hazards arising from the substance or mixture** Nitrogen oxides (NOx), Potassium oxides
5.3	**Advice for firefighters** Wear self-contained breathing apparatus for firefighting if necessary.
5.4	**Further information** Use water spray to cool unopened containers.

SECTION 6: Accidental release measures	
6.1	**Personal precautions, protective equipment and emergency procedures** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Avoid breathing dust. 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** Sweep up and shovel. 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). 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** Provide appropriate exhaust ventilation at places where dust is formed.Keep away from sources of ignition - No smoking.Keep away from heat and sources of ignition. 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. Store in cool place. Hygroscopic. Recommended storage temperature: 15 - 30°C
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 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** Impervious 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 particle 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: crystalline, powder Colour: white
	Odour	No data available
	Odour Threshold	No data available
	pH	No data available
	Melting point/freezing point	Melting point/range: 334°C – lit
	Initial boiling point and boiling range	No data available
	Flash point	No data available
	Evaporation rate	No data available
	Flammability (solid, gas)	No data available
	Upper/lower flammability or explosive limits	No data available
	Vapour pressure	No data available
	Vapour density	No data available
	Relative density	2.109 g/mL at 16°C
	Water solubility	soluble
	Partition coefficient: noctanol/water	No data available
	Auto-ignition temperature	No data available
	Decomposition temperature	No data available
	Viscosity	No data available
	Explosive properties	No data available
	Oxidizing properties	The substance or mixture is classified as oxidizing with the category 3.
9.2	**Other safety information**	No data available
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** No data available	
10.6	**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Potassium 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** LD50 Oral - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 425) LC50 Inhalation - Rat - male and female - 4 h - > 0,527 mg/l (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 402) **Skin corrosion/irritation** Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404) **Serious eye damage/eye irritation** Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405) **Respiratory or skin sensitisation** Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429) **Germ cell mutagenicity** Mutagenicity (mammal cell test): chromosome aberration. Chinese hamster fibroblasts Result: negative (ECHA) In vitro mammalian cell gene mutation test mouse lymphoma cells 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 - No observed adverse effect level - > 1.500 mg/kg RTECS: TT3700000 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. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption of large quantities: Methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms, key symptom: cyanosis (blue colouration of the blood). Other dangerous properties cannot be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information		
12.1	**Toxicity**	
	Toxicity to fish	static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l-96h (OECD Test Guideline 203)

		Remarks: (above the solubility limit in the test medium)
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 490 mg/l - 48 h Remarks: (above the solubility limit in the test medium)
	Toxicity to algae	static test ErC50 - diatoms - > 1.700 mg/l - 10 Days Remarks: (above the solubility limit in the test medium)
	Toxicity to bacteria	EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209) Remarks: (above the solubility limit in the test medium)
12.2	**Persistence and degradability**	
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: 1486	IMDG: 1486	IATA: 1486
14.2	**UN proper shipping name**	
	ADR/RID: Potassium nitrate IMDG: Potassium nitrate IATA: Potassium nitrate	
14.3	**Transport hazard class(es)**	
	ADR/RID: 5.1	IMDG: 5.1	IATA: 5.1
14.4	**Packaging group**	
	ADR/RID: III	IMDG: III	IATA: III
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: 20/03/21 Revision: 01