



MATERIAL SAFETY DATA SHEET

Silver nitrate

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1	Product identifiers		
	Product name	:	Silver nitrate
	Brand	:	LABORT
	CAS-No.	:	7761-88-8
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 Oxidizing solids (Category 2), H272 Corrosive to metals (Category 1), H290 Skin corrosion (Sub-category 1B), H314 Serious eye damage (Category 1), H318 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)		
	H272 May intensify fire; oxidizer.		

	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects.		
	Precautionary statement(s)		
	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe dust or mist. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. 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		
	Formula	:	AgNO3
	Molecular weight	:	169,87 g/mol
	Component	Classification	Concentration
	Silver nitrate CAS-No. EC-No. Index-No. 7761-88-8 231-853-9 047-001-00-2	Ox. Sol. 2; Met. Corr. 1; Skin Corr. 1B; Aquatic Acute 1; Aquatic Chronic 1; H272, H290, H314, H400, H410 Concentration limits: >= 1 %: Met. corr. H290; M-Factor - Aquatic Acute: 1.000 - Aquatic Chronic: 100	<= 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 Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. 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 (NO _x), Silver/silver oxides Container explosion may occur under fire conditions.
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 Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. 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 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 Avoid contact with skin and eyes. Avoid formation of dust and aerosols. 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. Light sensitive. Store under inert gas. Recommended storage temperature: 2 - 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 Safety glasses with side-shields conforming to EN166 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

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: Solid
Odour	odourless
Odour Threshold	No data available
pH	5 – 7
Melting point/freezing point	Melting point/range: 212 °C - dec.
Initial boiling point and boiling range	440 °C - Decomposes on heating.
Flash point	No applicable
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	4,350 g/cm3

	Water solubility	No data available
	Partition coefficient: noctanol/water	log Pow: 5
	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 2.
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 Light.	
10.5	Incompatible materials Aluminium, Mild steel, Metals	
10.6	Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Nitrogen oxides (NOx), Silver/silver 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 - 3.804 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male and female - 4 h - > 0,075 mg/l (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402) Skin corrosion/irritation Skin - reconstructed human epidermis (RhE) Result: Corrosive - 3 - 60 min (OECD Test Guideline 431) (Regulation (EC) No 1272/2008, Annex VI) Serious eye damage/eye irritation Causes serious eye damage. Risk of permanent damage due to staining of the cornea. Respiratory or skin sensitisation No data available Germ cell mutagenicity Micronucleus test Human lymphocytes Result: negative In vitro mammalian cell gene mutation test	

	<p>mouse lymphoma cells Result: Positive results were obtained in some in vitro tests.</p> <p>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.</p> <p>Reproductive toxicity No data available</p> <p>Specific target organ toxicity - single exposure No data available</p> <p>Specific target organ toxicity - repeated exposure No data available</p> <p>Aspiration hazard No data available</p> <p>Additional Information Repeated dose toxicity - Rat - male and female - Oral - 52 Days - No observed adverse effect level - >= 250 mg/kg RTECS: VW4725000</p> <p>May cause argyria (a slate-gray or bluish discoloration of the skin and deep tissues due to the deposit of insoluble albuminate of silver)., 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.</p> <p>To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.</p>
SECTION 12: Ecological information	
12.1	Toxicity
	<p>Toxicity to fish semi-static test LC50 - Pimephales promelas (fathead minnow) - 0,0012 mg/l - 96 h (US-EPA)</p> <p>Toxicity to daphnia and other aquatic invertebrates semi-static test LC50 - Daphnia magna (Water flea) - 0,00022 mg/l - 48 h Remarks: (ECHA)</p>
12.2	<p>Persistence and degradability The methods for determining the biological degradability are not applicable to inorganic substances.</p>
12.3	<p>Bioaccumulative potential No data available.</p>
12.4	<p>Mobility in soil No data available</p>
12.5	<p>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.</p>
12.6	<p>Other adverse effects Very toxic to aquatic life.</p>
SECTION 13: Disposal considerations	
13.1	Waste treatment methods
	<p>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.</p> <p>Contaminated packaging Dispose of as unused product.</p>

SECTION 14: Transport information

14.1	UN number		
	ADR/RID: 1493	IMDG: 1493	IATA: 1493
14.2	UN proper shipping name		
	ADR/RID: Silver nitrate IMDG: Silver nitrate IATA: Silver nitrate		
14.3	Transport hazard class(es)		
	ADR/RID: 5.1	IMDG: 5.1	IATA: 5.1
14.4	Packaging group		
	ADR/RID: II	IMDG: II	IATA: II
14.5	Environmental hazards		
	ADR/RID: yes	IMDG Marine pollutant: yes	IATA: yes
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: 09/07/20 Revision: 01
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