

## SAFETY DATA SHEET

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name	Zinc nitrate hexahydrate
CAS number	10196-18-6
Synonyms	Nitric acid, zinc salt hexahydrate

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory chemicals.
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#### 1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

#### 1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC


### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing Solids	Category 2
Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Specific Target Organ Toxicity (single exposure)	Category 3
Target Organ(s) - Respiratory system	

## 2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause respiratory irritation.
Precautionary statements	<p>Prevention: Wash face, hands, and any exposed skin thoroughly after handling. Do not eat, drink, or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep/Store away from clothing/ other combustible materials. Take any precaution to avoid mixing with combustibles.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.</p> <p>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 or doctor/physician.</p> <p>IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.</p> <p>Fire: In case of fire, use CO2, dry chemical, or foam for extinction.</p> <p>Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up.</p> <p>Disposal: Dispose of contents/container to an approved waste disposal plant.</p>

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Zinc nitrate hexahydrate	Nitric acid, zinc salt hexahydrate	10196-18-6	>95%
Zinc nitrate	-	7779-88-6	-

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

- If inhaled** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
- In case of skin contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
- In case of eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
- If swallowed** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes severe eye damage.

### 4.3 Indication of any immediate medical attention and special treatment needed

If symptoms persist, call a physician. Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** No information available.

**Unsuitable extinguishing media** No information available.

### 5.2 Specific hazards arising from the substance or mixture

May ignite combustibles (wood paper, oil, clothing, etc.). Oxidizer: Contact with combustible/organic material may cause fire. Do not allow run-off from fire-fighting to enter drains or water courses.

Hazardous Combustion Products: Nitrogen oxides (NO<sub>x</sub>).

### 5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 5.4 Further information

**Flash Point** No information available.

**Autoignition Temperature** No information available.

#### Explosion limits

**Upper** No data available.

**Lower** No data available.

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

#### NFPA

Health	Flammability	Instability	Physical hazards
2	1	2	OX

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### 6.2 Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained.

### 6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Soak up with inert absorbent material.

### 6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Precautions on safe handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation. Keep away from clothing and other combustible materials.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2 Conditions for safe storage, including any incompatibilities****Storage conditions**

Keep containers tightly closed in a dry, cool, and well-ventilated place. Do not store near combustible materials. Store under an inert atmosphere. Protect from moisture.

**Incompatibilities**

Strong oxidizing agents. Strong reducing agents. Combustible material.

**SECTION 8: Exposure controls/personal protection****8.1 Occupational exposure limits**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**8.2 Exposure controls****Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal protective equipment****Eye/face protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Body Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particulates filter conforming to EN 143.

#### **Control of environmental exposure**

No information available.

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

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

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	5.1, 5% aq.sol
Melting Point/Range	36 °C / 96.8 °F
Boiling Point/Range	No information available
Evaporation Rate	Not applicable
Flammability (solid)	No information available
Flammability or explosive limit	No data available
Upper	
Lower	
Vapor Pressure	No information available
Vapor Density	Not applicable
Density	No information available
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available
Decomposition Temp	> 140°C
Viscosity	Not applicable
Molecular Formula	N <sub>2</sub> O <sub>6</sub> Zn - 6H <sub>2</sub> O
Molecular Weight	297.46 g/mol
VOC Content(%)	No information available
Oxidizing properties	Oxidizer

### **9.2 Other safety information**

No information available.

## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

Oxidizer.

## 10.2 Chemical stability

Contact with combustible/organic material may cause fire. Hygroscopic.

## 10.3 Possibility of hazardous reactions

None under normal processing.

## 10.4 Conditions to avoid

Incompatible products. Excess heat. Combustible material. Avoid dust formation. Exposure to moist air or water.

## 10.5 Incompatible materials

Strong oxidizing agents, Strong reducing agents, Combustible material.

## 10.6 Hazardous decomposition products

Nitrogen oxides (NO<sub>x</sub>).

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc nitrate hexahydrate	1190 mg/kg (Rat)	-	-
Zinc nitrate	1400 mg/kg (Rat)	-	-

##### Skin corrosion/irritation

Irritating to skin.

##### Serious eye damage/eye irritation

Irritating to eyes.

##### Respiratory or skin sensitization

Irritating to respiratory system.

##### Germ cell mutagenicity

No information available.

##### Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Zinc nitrate hexahydrate	10196-18-6	Not listed	Not listed	Not listed	Not listed	Not listed
Zinc nitrate	7779-88-6	Not listed	Not listed	Not listed	Not listed	Not listed

##### Specific target organ toxicity - single exposure

Respiratory system.

**Specific target organ toxicity - repeated exposure**

None known.

**Reproductive toxicity**

No information available.

**Chronic effects**

No information available.

**11.2 Additional Information**

The toxicological properties have not been fully investigated.

**SECTION 12: Ecological information****12.1 Toxicity**

Very toxic to aquatic organisms.

Product		Species	Test Results
Zinc nitrate	LC50	Cyprinus carpio	7.8 mg/L, 96h static

**12.2 Persistence and degradability**

Soluble in water. Persistence is unlikely based on information available.

**12.3 Bio accumulative potential**

No information available.

**12.4 Mobility in soil**

Will likely be mobile in the environment due to its water solubility.

**12.5 Results of PBT and vPvB assessment**

No information available.

**12.6 Endocrine disrupting properties**

No information available.

**12.7 Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1 Waste Disposal Methods**

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**SECTION 14: Transport information**



**DOT (US)**

UN-no	UN1514
Proper Shipping Name	ZINC NITRATE
Hazard Class	5.1
Packing Group	II

**IMDG**

UN-no	UN1514
Proper Shipping Name	ZINC NITRATE
Hazard Class	5.1
Packing Group	II

**IATA**

UN-no	UN1514
Proper Shipping Name	ZINC NITRATE
Hazard Class	5.1
Packing Group	II

**SECTION 15: Regulatory information**

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**  
Not applicable.

**CERCLA Hazardous Substance List (40 CFR 302.4)**  
Listed, Zinc nitrate (CAS #7779-88-6), RQ: 1000 lb.

**SARA 304 Emergency release notification**  
Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**  
Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**SARA 302 Extremely hazardous substance**  
Not listed.

**SARA 311/312 Hazardous**  
See Section 2 for more information.

**SARA 313 (TRI reporting)**  
Listed, Zinc nitrate hexahydrate (CAS #10196-18-6).  
Listed, Zinc nitrate (CAS #7779-88-6).

## Other federal regulations

### **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

### **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

### **Clean Water Act (CWA)**

Listed, Zinc nitrate hexahydrate (CAS #10196-18-6).

Listed, Zinc nitrate (CAS #7779-88-6), RQ: 1000 lb.

### **FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace**

Not listed.

## US state regulations

### **US. Massachusetts RTK - Substance List**

Listed, Zinc nitrate (CAS #7779-88-6).

### **US. New Jersey Worker and Community Right-to-Know Act**

Listed, Zinc nitrate hexahydrate (CAS #10196-18-6).

Listed, Zinc nitrate (CAS #7779-88-6).

### **US. Pennsylvania Worker and Community Right-to-Know Law**

Listed, Zinc nitrate hexahydrate (CAS #10196-18-6).

Listed, Zinc nitrate (CAS #7779-88-6).

### **California Proposition 65**

Not listed.

## SECTION 16: Other information

Issue date: 12/14/2019

Revision 1: 12/16/2024

## SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.