

## SAFETY DATA SHEET

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

#### 1.1 Product identifiers

Product name 1,10-Phenanthroline, 0.1% (w/v)  
CAS number See Section 3  
Synonyms N/A

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

Identified uses General Laboratory Reagent.

#### 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)

This product is not categorized as hazardous in any GHS hazard class.

#### 2.2 GHS Label elements, including precautionary statements

None required.

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

Data not available.

## SECTION 3: Composition/information on ingredients

### 3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Water	Aqua; H <sub>2</sub> O	7732-18-5	99.86%
1,10-Phenanthroline Monohydrate	-	5144-89-8	0.10%
Hydrochloric Acid	-	7647-01-0	<0.10%

## SECTION 4: First aid measures

### 4.1 Description of first-aid measures

#### General advice

**If inhaled** Not expected to require first aid. If necessary, remove to fresh air.

**In case of skin contact** May cause slight irritation.

**In case of eye contact** May cause slight irritation.

**If swallowed** Dilute with water or milk. Call a physician if necessary.

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

May be harmful if swallowed. If ingested, dilute with water and call a physician if necessary. Wash areas of contact with water. Does not present any significant health hazards. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation.

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

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Call a physician if necessary.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** Use any means suitable for extinguishing surrounding fire.

**Unsuitable extinguishing media** No information available.

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

Not considered to be a fire or explosion hazard.

### 5.3 Special protective equipment and precautions for firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

### 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
1	0	0	N/A

## SECTION 6: Accidental release measures

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

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

### 6.2 Environmental precautions

No information available.

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

Absorb with suitable material and treat as normal refuse. Small amounts of the liquid may be flushed to the drain with excess water. Always dispose of in accordance with local regulations.

### 6.4 Reference to other sections

None.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

**Precautions on safe handling**

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

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

Protect from freezing and physical damage.

**Incompatibilities**

Strong oxidizing agents.

**SECTION 8: Exposure controls/personal protection**

**8.1 Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Component	Type	Value	
Hydrochloric Acid	Ceiling	5 ppm	7 mg/m <sup>3</sup>

**US. ACGIH Threshold Limit Values**

Component	Type	Value
Hydrochloric Acid	Ceiling	2 ppm

**Biological occupational exposure limits**

No information available.

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

No specific controls are needed. Normal room ventilation is adequate.

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

Safety glasses or goggles.

**Skin protection**

Chemical resistant gloves.

**Body Protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory protection**

Normal room ventilation is adequate.

**Control of environmental exposure**

No information available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Colorless to very light green
Odor	Data not available
Odor Threshold	Data not available
pH	Data not available
Melting Point/Range	0.0°C
Boiling Point/Range	100°C
Evaporation Rate	Data not available
Flammability (solid)	Data not available
Flammability or explosive limit	Data not available
Upper	
Lower	
Vapor Pressure	Data not available
Vapor Density	Data not available
Density	1
Solubility	Miscible
Partition coefficient; n-octanol/water	Data not available
Autoignition Temp	Data not available
Decomposition Temp	Data not available
Viscosity	Data not available
Molecular Formula	N/A
Molecular Weight	N/A
VOC Content(%)	Data not available
Oxidizing properties	Data not available

### 9.2 Other safety information

No information available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Stable under normal conditions of use and storage.

### 10.2 Chemical stability

Stable under normal conditions of use and storage.

### 10.3 Possibility of hazardous reactions

Data not available.

### 10.4 Conditions to avoid

Incompatible materials.

### 10.5 Incompatible materials

Strong oxidizing agents.

### 10.6 Hazardous decomposition products

Will not occur.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Product Information, Component Information

##### Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrochloric Acid	900 mg/kg (Rabbit)	-	-

##### Skin corrosion/irritation

Not applicable.

##### Serious eye damage/eye irritation

Not applicable.

##### Respiratory or skin sensitization

Not applicable.

##### Germ cell mutagenicity

Not applicable.

##### Carcinogenicity

Not applicable.

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

Not applicable.

##### Specific target organ toxicity - repeated exposure

Not applicable.

##### Reproductive toxicity

Not applicable.

**Chronic effects**

Not applicable.

**11.2 Additional Information**

Data not available.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Not applicable.

**12.2 Persistence and degradability**

Data not available.

**12.3 Bio accumulative potential**

Data not available.

**12.4 Mobility in soil**

Data not available.

**12.5 Results of PBT and vPvB assessment**

Data not available.

**12.6 Endocrine disrupting properties**

Data not available.

**12.7 Other adverse effects**

Data not 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)** Not regulated.

**IMDG** Not regulated.

**IATA** Not regulated.

## 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, Hydrochloric Acid (CAS # 7647-01-0), RQ: 5000 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)**

Not regulated.

**Other federal regulations**

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

Listed, Hydrochloric Acid (CAS # 7647-01-0).

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

Not regulated.

**Safe Drinking Water Act**

Not regulated.

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

Not listed.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Listed, Hydrochloric Acid (CAS # 7647-01-0).

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

Listed, Hydrochloric Acid (CAS # 7647-01-0).



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

Listed, Hydrochloric Acid (CAS # 7647-01-0).

**California Proposition 65**

Not listed.

**SECTION 16: Other information**

Issue date: 12/12/2024

**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.