# Safety Data Sheet



According to the UN GHS revision 8

Creation Date: May 29, 2024 May 29, 2024 Revision Date:

#### **IDENTIFICATION**

#### 1.1 **GHS Product identifier**

**Product name:** o-Phenanthroline monohydrate

Catalog Number: T7449

**CAS Number:** 5144-89-8

#### 1.2 Other means of identification

Other names:

#### Recommended use of the chemical and restrictions on use 1.3

**Identified uses:** 

#### Supplier's details 1.4

Company: Targetmol Chemicals Inc.

Uses advised against: 36 Washington Street, Wellesley Hills, Massachusetts 02481 USA

Tel/Fax: (781) 999-4286

#### 1.5 **Emergency phone number**

**Emergency phone number:** 781-999-4286

Service hours: Monday to Friday, 9am-5pm (Standard timezone: UTC/GMT -5hours).

#### **HAZARD IDENTIFICATION** 2.

#### 2.1 Classification of the substance or mixture

Acute toxicity - Category 3, Oral

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1 Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

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

Pictogram(s):

Response:





Signal word:

Danger

H301 Toxic if swallowed Hazard statement(s):

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s):

P264 Wash ... thoroughly after handling.

Prevention: P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P301+P316 IF SWALLOWED: Get emergency medical help immediately.

P321 Specific treatment (see ... on this label).

P330 Rinse mouth.

P391 Collect spillage.

Storage: P405 Store locked up.

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance

Page 1 of 7 www.targetmol.com with applicable laws and regulations, and product characteristics at time of disposal.

# 2.3 Other hazards which do not resultin classification

no data available

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number
o-Phenanthroline monohydrate	-	5144-89-8	-

#### 4. FIRST-AID MEASURES

# 4.1 Description of necessary first-aid measures

#### General advice

no data available

#### If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

#### Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

#### Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

### **Following ingestion**

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

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

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

#### 5. FIRE-FIGHTING MEASURES

# 5.1 Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

# 5.2 Specific hazards arising from the chemical

no data available

# 5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

# 6. ACCIDENTAL RELEASE MEASURES

# 6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

# 6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Page 2 of 7 www.targetmol.com

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

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use sparkproof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

#### HANDLING AND STORAGE 7.

#### 7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

#### **EXPOSURE CONTROLS/PERSONAL PROTECTION** 8.

#### 8.1 **Control parameters**

#### **Occupational Exposure limit values**

no data available

#### Biological limit values

no data available

#### 8.2 **Appropriate engineering controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the riskelimination area.

#### 8.3 Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

#### Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

#### Thermal hazards

no data available

### **PHYSICAL AND CHEMICAL PROPERTIES**

Physical state white crystals or powder

Color no data available Odour no data available

Melting point/ freezing point 102°C(lit.)

**Boilingpoint or initial boiling point** 

and boiling range

144°C(lit.)

**Flammability** no data available

Lower and upper explosion

no data available limit/flammability limit

98°C(lit.) Flash point

**Auto-ignition temperature** no data available

**Decomposition temperature** no data available

Page 3 of 7 www.targetmol.com **pH** no data available

Kinematic viscosity no data available

Solubility DMSO: 39mg/mL(196.75mM),

N-octanol-water partition

coefficient no data available

Vapour pressure no data available

Density and/ or relative density 1.1

Relative vapour density no data available

Particle characteristics no data available

# 10. STABILITY AND REACTIVITY

# 10.1 Reactivity

no data available

# 10.2 Chemical stability

no data available

# 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

no data available

# 11. TOXICOLOGICAL INFORMATION

# Acute toxicity

Oral: no data available Inhalation: no data available Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

**Aspiration hazard** 

no data available

### 12. ECOLOGICAL INFORMATION

# 12.1 Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

# 12.2 Persistence and degradability

no data available

### 12.3 Bioaccumulative potential

no data available

# 12.4 Mobility in soil

no data available

#### 12.5 Other adverse effects

no data available

# 13. DISPOSAL CONSIDERATIONS

# 13.1 Disposal methods

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

### 14. TRANSPORT INFORMATION

### 14.1 UN Number

no data available

# 14.2 UN Proper Shipping Name

no data available

# 14.3 Transport hazard class(es)

no data available

# 14.4 Packing group, if applicable

no data available

# 14.5 Environmental hazards

no data available

# 14.6 Special precautions for user

no data available

# 14.7 Transport in bulk according to IMO instruments

no data available

#### 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Listed.
Vietnam National Chemical Inventory	Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Listed.
Korea Existing Chemicals List (KECL)	Not Listed.

### 16. OTHER INFORMATION

Information on revision

Creation Date May 29, 2024

Revision Date May 29, 2024

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- · ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

 $e Chem Portal - The \ Global \ Portal \ to \ Information \ on \ Chemical \ Substances \ by \ OECD, \ website: \ http://www.echemportal.$ 

org/echemportal/index?pageID=0&request\_locale=en

 ${\it CAMEO\ Chemicals, website: http://cameochemicals.noaa.gov/search/simple}$ 

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

 ${\sf ERG-Emergency~Response~Guidebook~by~U.S.~Department~of~Transportation,~website:~http://www.phmsa.dot.}\\$ 

gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp ECHA - European Chemicals Agency, website: https://echa.europa.eu/

# Other Information

no data available

Page 6 of 7 www.targetmol.com

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. We as supplier shall not be held liable for any damage resulting from handling or from contact with the above product. All products are for Research Use Only · Not For Human or Veterinary or Therapeutic Use

Page 7 of 7 www.targetmol.com