# TRC102 (methoxyamine hydrochloride) SDS/MSDS (Safety Data Sheet)

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

* Product Name: TRC102 (methoxyamine hydrochloride)
* Catalog Number: E1503
* CAS Number: 593-56-6
* IUPAC Name: Hydroxylamine, O -methyl-, hydrochloride (1:1)

Relevant identified uses and uses advised against

* Identified uses: For research and development use only; laboratory chemicals; manufacture of substances.
* Uses advised against: Not for pharmaceutical, household, or other unapproved uses.

Details of the supplier

* Company: Selleck Chemicals
* TollFree: +1 877 796-6397
* Tel: +1 832 582-8158
* Fax: +1 832 582-8590

Emergency telephone number

* Emergency phone #: +1 832 582-8158

## 2. HAZARDS IDENTIFICATION

### 2.1 GHS classification in accordance with 29 CFR 1910 (OSHA HCS):

Acute toxicity (oral): Category 4. H302
Acute toxicity (dermal): Category 4. H312
Skin corrosion: Category 1. H314
Skin irritation: Category 2. H315
Skin sensitization: Category 1. H317
Serious eye damage: Category 1. H318
Carcinogenicity: Category 2. H351
Specific target organ toxicity (repeated exposure): Category 1. H372
Specific target organ toxicity (repeated exposure): Category 2. H373
Acute aquatic toxicity: Category 1. H400
Chronic aquatic toxicity: Category 3. H412

### 2.2 GHS Label elements, including precautionary statements

**Hazard Pictogram(s)**



**Signal Word** Danger

| | |
|---|---|
| **Hazard statement(s)** | H302: Harmful if swallowed<br>H312: Harmful in contact with skin<br>H314: Causes severe skin burns and eye damage<br>H315: Causes skin irritation<br>H317: May cause an allergic skin reaction<br>H318: Causes serious eye damage<br>H351: Suspected of causing cancer<br>H372: Causes damage to organs through prolonged or repeated exposure<br>H373: May causes damage to organs through prolonged or repeated exposure<br>H400: Very toxic to aquatic life<br>H412: Harmful to aquatic life with long lasting effects |
| **Precautionary statement(s)** | None. |
| **Prevention** | P203: Obtain, read and follow all safety instructions before use.<br>P260: Do not breathe dust/fume/gas/mist/vapors/spray.<br>P261: Avoid breathing dust/fume/gas/mist/vapors/spray.<br>P264: Wash hands thoroughly after handling.<br>P264+P265: Wash hands thoroughly after handling. Do not touch eyes.<br>P270: Do not eat, drink or smoke when using this product.<br>P272: Contaminated work clothing should not be allowed out of the workplace.<br>P273: Avoid release to the environment.<br>P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. |
| **Response** | P301+P317: IF SWALLOWED: Get medical help.<br>P301+P330: IF SWALLOWED: Rinse mouth.<br>P302+P352: IF ON SKIN: wash with plenty of water.<br>P302+P361: IF ON SKIN: Take off immediately all contaminated clothing.<br>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.<br>P305+P354: IF IN EYES: Immediately rinse with water for several minutes.<br>P316: Get emergency medical help immediately.<br>P317: Get emergency medical help.<br>P318: if exposed or concerned, get medical advice.<br>P319: Get medical help if you feel unwell.<br>P321: Specific treatment (see information on this label and safety datasheet)).<br>P330: Rinse mouth.<br>P331: Do NOT induce vomiting.<br>P332+P317: If skin irritation occurs: Get medical help.<br>P333+P317: If skin irritation or rash occurs: Get medical help.<br>P338: Remove contact lenses, if present and easy to do. Continue rinsing.<br>P354: Immediately rinse with water for several minutes.<br>P362+P364: Take off contaminated clothing and wash it before reuse.<br>P363: Wash contaminated clothing before reuse.<br>P391: Collect spillage. |
| **Storage** | P405: Store locked up. |
| **Disposal** | P501: P501 Dispose of contents/ container to an approved waste disposal plant. |

### 2.3 Other hazards

None.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

Product name: TRC102 (methoxyamine hydrochloride)

CAS Number: 593-56-6

PubChem CID: 521874

Molecular formula: CH6ClNO

Molecular weight: 83.52 g/mol

IUPAC name: O-methylhydroxylamine;hydrochloride

### 3.2 Mixtures

Not applicable (pure substance).

## 4. FIRST-AID MEASURES

### 4.1 Description of first aid measures

Inhalation: INHALATION: IMMEDIATELY leave the contaminated area; take deep breaths of fresh air. If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician and be prepared to transport the victim to a hospital. Provide proper respiratory protection to rescuers entering an unknown atmosphere. Whenever possible, Self-Contained Breathing Apparatus (SCBA) should be used; if not available, use a level of protection greater than or equal to t

Skin contact: SKIN: IMMEDIATELY flood affected skin with water while removing and isolating all contaminated clothing. Gently wash all affected skin areas thoroughly with soap and water. IMMEDIATELY call a hospital or poison control center even if no symptoms (such as redness or irritation) develop. IMMEDIATELY transport the victim to a hospital for treatment after washing the affected areas.

Eye contact: EYES: First check the victim for contact lenses and remove if present. Flush victim's eyes with water or normal saline solution for 20 to 30 minutes while simultaneously calling a hospital or poison control center. Do not put any ointments, oils, or medication in the victim's eyes without specific instructions from a physician. IMMEDIATELY transport the victim after flushing eyes to a hospital even if no symptoms (such as redness or irritation) develop.

Ingestion: INGESTION: DO NOT INDUCE VOMITING. Corrosive chemicals will destroy the membranes of the mouth, throat, and esophagus and, in addition, have a high risk of being aspirated into the victim's lungs during vomiting which increases the medical problems. If the victim is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. IMMEDIATELY transport the victim to a hospital. If the victim is convulsing or unconscious, d

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

See Section 11 (Toxicological Information).

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

Treat symptomatically. Contact a poison control center or physician for severe exposure.

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable: Water spray, dry chemical, carbon dioxide (CO2), alcohol-resistant foam.

Unsuitable: None known.

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

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

### 5.3 Advice for firefighters

Wear self-contained breathing apparatus (SCBA) and full protective clothing.

Fight fire from upwind. Cool containers with water spray until fire is extinguished.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear appropriate personal protective equipment (see Section 8).

Avoid breathing dust/vapor. Ensure adequate ventilation.

Evacuate personnel to safe areas. Keep people away from and upwind of spill.

### 6.2 Environmental precautions

Prevent product from entering drains, waterways, or soil.

Contain spill with inert absorbent material.

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

**Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:**

IMMEDIATE PRECAUTIONARY MEASURE: Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

SPILL: Increase the immediate precautionary measure distance, in the downwind direction, as necessary.

FIRE: If tank, rail tank car or highway tank is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. (ERG, 2024)

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

SMALL SPILLS AND LEAKAGE: If you spill this chemical, you should dampen the solid spill material with water, then transfer the dampened material to a suitable container. Use absorbent paper dampened with water to pick up any remaining material. Seal your contaminated clothing and the absorbent paper in a vapor-tight plastic bag for eventual disposal. Wash all contaminated surfaces with a soap and water solution. Do not reenter the contaminated area until the Safety Officer (or other responsible person) has verified that the area has been properly cleaned.

STORAGE PRECAUTIONS: You should store this material in a refrigerator. (NTP, 1992)

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

Store in a cool, dry, well-ventilated area. Keep container tightly closed.

Store away from incompatible materials (see Section 10).

Protect from light and moisture.

Recommended storage (industry convention for research compounds): -20°C for long-term storage; 2-8°C for short-term use and transport.

[Note: This is a general industry recommendation. Always verify exact storage conditions with the supplier Certificate of Analysis (COA).]

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Exposure controls

8.1.1 Occupational exposure limits (OEL)

OSHA PEL: Not established.

ACGIH TLV: Not established.

NIOSH REL: Not established.

No occupational exposure limit values are established for this substance.

Use the lowest feasible exposure level (ALARA principle).

8.1.2 Appropriate engineering controls

Use in a well-ventilated area. Chemical fume hood recommended for powder handling.

### 8.2 Individual protection measures

8.2.1 Eye/face protection

Wear chemical safety goggles and face shield.

8.2.2 Skin protection

Wear protective gloves. Recommended material: Nitrile rubber.

Wear suitable protective clothing (lab coat).

8.2.3 Respiratory protection

Respiratory protection usually not required under normal use with adequate ventilation.

Use N95 respirator for large-scale powder handling.

8.2.4 Thermal hazards

Not applicable.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance: O-methylhydroxylamine hydrochloride appears as off-white crystals. (NTP, 1992)

b) Odor: No data available

c) Odor threshold: No data available

d) pH: No data available

e) Melting point/freezing point: 300 to 304 °F (decomposes) (NTP, 1992)

f) Initial boiling point and boiling range: No data available

g) Flash point: No data available

h) Evaporation rate: No data available

i) Flammability (solid, gas): No data available

j) Upper/lower flammability or explosive limits: No data available

k) Vapor pressure: No data available

l) Vapor density: No data available

m) Relative density: No data available

n) Water solubility: Soluble (NTP, 1992)

o) Partition coefficient: n-octanol/water: Log P: No data available

p) Auto-ignition temperature: No data available

q) Decomposition temperature: No data available

r) Viscosity: No data available

s) Explosive properties: No data available

t) Oxidizing properties: No data available

### 9.2 Other information

Topological Polar Surface Area (TPSA): 35.3 Å²

Complexity: 4

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No specific reactivity hazards identified under normal handling conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions under normal conditions.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames, direct sunlight, and moisture.

Avoid strong oxidizing agents, strong acids, and strong bases.

### 10.5 Incompatible materials

Strong oxidizing agents, strong acids, strong bases.

### 10.6 Hazardous decomposition products

Thermal decomposition may produce: Carbon monoxide (CO), Carbon dioxide (CO□), Nitrogen oxides (NOx), Hydrogen chloride (HCl).

See also Section 5 (Fire-fighting measures) for combustion products.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:**

No acute toxicity data available.

**Skin corrosion/irritation:**

Causes severe skin burns and eye damage (H314).

**Serious eye damage/eye irritation:**

Causes serious eye damage (H318).

**Respiratory or skin sensitization:**

May cause an allergic skin reaction (H317).

**Germ cell mutagenicity:**

No data available.

**Carcinogenicity:**

Suspected of causing cancer (H351).

**Reproductive toxicity:**

No data available.

**Specific target organ toxicity (single exposure):**

H372, H373

**Specific target organ toxicity (repeated exposure):**

No data available.

**Aspiration hazard:**

No data available.

### 11.2 Additional information

No additional toxicological information available.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No ecotoxicity 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 Results of PBT and vPvB assessment

PBT/vPvB assessment not available.

### 12.6 Other adverse effects

This substance is classified as hazardous to the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Waste Treatment Methods: Waste material must be disposed of in accordance with national and local regulations. Leave chemicals in original containers and do not mix with other waste. Handle uncleaned containers in the same manner as the product itself.

## 14. TRANSPORT INFORMATION

### 14.1 UN number

Not regulated as dangerous goods (research quantities typically exempt).

### 14.2 UN proper shipping name

Not subject to transport regulations (small quantities for research use).

### 14.3 Transport hazard class(es)

Not classified as dangerous goods for transport (research quantities).

DOT label: Corrosive

### 14.4 Packing group

Not applicable (not regulated as dangerous goods in typical research quantities).

### 14.5 Environmental hazards

Marine pollutant: Yes (classified as environmentally hazardous per GHS).

### 14.6 Special precautions for user

Transport in original packaging. Ensure containers are tightly sealed.

For bulk or commercial quantities, consult applicable transport regulations (DOT, IATA, IMDG).

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

US EPA / TSCA: Subject to EPA TSCA regulations

EU ECHA / REACH: Registered (REACH Active)

**SARA 302 Components:**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:**

Acute (short-term) health hazard

Chronic (long-term) health hazard

Environmental hazard

**Massachusetts Right To Know Components:**

This material contains components subject to the Massachusetts Right to Know Act. See Section 2 for hazard classification.

**Pennsylvania Right To Know Components:**

This material contains components subject to the Pennsylvania Right to Know Act. See Section 2 for hazard classification.

**New Jersey Right To Know Components:**

This material contains components subject to the New Jersey Right to Know Act. See Section 2 for hazard classification.

**California Prop. 65 Components:**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

**Other regulatory listings:**

- The Australian Inventory of Industrial Chemicals: Chemical: Hydroxylamine, O-methyl-, hydrochloride

### 15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for this substance.

For research-use-only compounds, no CSA is required under REACH Annex I.

## 16. OTHER INFORMATION

Revision Date: 2026/09/08

Further Information: The information provided is believed to be correct but is not exhaustive and should be used only as a guideline based on current knowledge. It does not represent a guarantee of the properties of the product. Selleck Chemicals Corporation and its Affiliates shall not be held liable for any damage resulting from handling or contact with the product.