



Cambridge Isotope Laboratories, Inc.  
3 Highwood Drive  
Tewksbury, MA 01876

Number:  
Issue Date

DNLM-3671  
09/19/14

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## MATERIAL SAFETY DATA SHEET

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### 1 CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Description 4-AMINO-2,2,6,6-TETRAMETHYLPYPERIDINE-1-OXYL (D17, 98%; 15N, 98%) (TEMPAMINE)

Cambridge Isotope Laboratories, Inc.  
50 Frontage Rd  
ANDOVER, MA 01810  
USA

E-mail [cilsales@isotope.com](mailto:cilsales@isotope.com)  
Web Site [www.isotope.com](http://www.isotope.com)

#### Phone Numbers

Emergency Contact Chemtrec  
Emergency Phone 1-800-424-9300 (24 hours)  
  
Customer Service 1-800-322-1174 (8:30-5:30 EST)  
Phone  
Transportation 1-202-483-7616 (24 hours)

### 2 HAZARDS IDENTIFICATION

OSHA Hazards  
Irritant

GHS Classification  
Skin irritation (Category 2)  
Eye irritation (Category 2A)  
Specific Target Organ Toxicity - Single exposure (Category 3)

#### GHS Label Information

Signal Word Warning

Hazards Identification  
Exclamation mark

Hazard Statement(s)  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.

Precautionary Statement(s)  
Avoid breathing dust/fume/gas/mist/vapours/spray.



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Wash skin thoroughly after handling.  
Use only outdoors or in a well-ventilated area.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN: Wash with soap and water.  
IF INHALED: Remove victim to fresh air. Keep at rest in a comfortable position.  
IF IN EYES: Rinse with water for several minutes. Remove contact lenses.  
Call a POISON CENTER or doctor/physician if you feel unwell.  
Specific treatment (see supplemental first aid instructions on this label).  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
Take off contaminated clothing and wash before reuse.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Dispose of contents/container to an approved waste disposal plant.

### HMIS Ratings

Physical	0
Flammability	0
Health	2

### NFPA Codes

Fire	0
Health	2
Reactivity	0

### Potential Health Effects

Eyes	Causes eye irritation.
Ingestion	May be harmful if swallowed.
Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Skin	May be harmful if absorbed through the skin. Causes skin irritation.

## 3 COMPOSITION / INFORMATION ON INGREDIENTS

### Composition / Information on Ingredients

Synonyms	4-Amino-2,2,6,6-tetramethylpiperidinyloxy, free radical. 4-Amino-TEMPO
Chemical Formula	C <sub>9</sub> H <sub>2</sub> D <sub>17</sub> *NNO
Molecular Weight	189.35
CAS No.	97461-87-5
EC No.	238-738-2

## 4 FIRST AID MEASURES

### First Aid Measures



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Eyes	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation	If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.
Skin	Wash off with soap and plenty of water. Consult a physician.
Additional Information	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### 5 FIRE FIGHTING MEASURE

#### Fire Fighting Measures

Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.
Hazardous Decomposition	Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides (NO <sub>x</sub> )
Fire Fighting Equipment	Wear self contained breathing apparatus for fire fighting if necessary.

### 6 ACCIDENTAL RELEASE MEASURES

#### Accidental Release Measures

Personal Precautions	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental Precautions	Do not let product enter drains.
Methods and materials for containment and cleanup	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 7 HANDLING AND STORAGE

#### Precautions for Safe Handling



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Handling Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

### Conditions for Safe Storage

Storage Store at room temperature away from light and moisture.

## 8 EXPOSURE CONTROL / PERSONAL PROTECTION

### Personal Protection

Eyes - Face Wear safety glasses with side shields (or goggles) and a face shield.

Skin Wear suitable protective clothing and gloves.

Respiratory When appropriate, use NIOSH/CEN approved respirator.

Protective Clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Work Hygienic Practices Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties (Unlabeled Compound)

Form Solid

Color Red

Odor No data available

Odor Threshold No data available

pH No data available

Melting Point 0 °C (32 °F) - lit

Boiling Point No data available

Flashpoint No data available

Evaporation Rate No data available

Fammability No data available

Flammable Limits No data available

Lower Explosion Limit No data available

Upper Explosion Limit No data available

Limit



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Vapor Pressure	No data available
Vapor Density	No data available
Density	No data available
Solubility in Water	No data available
Partition Coefficient	No data available
Auto Ignition	No data available
Temperature	
Decomposition	No data available
Temperature	
Viscosity	No data available

### 10 STABILITY AND REACTIVITY

#### Stability and Reactivity

Chemical Stability	Stable if stored under recommended conditions.
Possibility of Hazardous Reactions	Not available
Conditions to Avoid	Not available
Hazardous decomposition products	Formed under fire conditions: Carbon oxides, Nitrogen oxides (NO <sub>x</sub> )
Materials to avoid	Strong oxidizing agents

### 11 TOXICOLOGICAL INFORMATION

#### Acute Toxicity

Serious Damage/Eye Irritation	No data available
Skin Corrosion/Irritation	No data available
Inhalation	No data available
Respiratory or Skin Sensitization	Not available
Germ Cell Mutagenicity	Not available



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Carcinogenicity	Not available
IARC	No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible, or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identifiable as a carcinogen or potential carcinogen by ACGIH.
NTP	No component of this product present at levels greater than or equal to 0.1% is identifiable as a known or anticipated carcinogen by NTP.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive Toxicity	Not available

### Specific Target Organ Toxicity

Single Exposure	Inhalation - May cause respiratory irritation
Repeated Exposure	No data available

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12 ECOLOGICAL INFORMATION

### Toxicity

Persistence and Degradability	Not available
Bioaccumulative Potential	Not available
Mobility in Soil	Not available
PBT and vPvB Assessment	Not available
Other Adverse Effects	Not available

## 13 DISPOSAL CONSIDERATIONS

### Disposal Considerations



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Product Disposal      Waste materials should be disposed of under conditions which meet Federal, State, and Local environmental control regulations.

### 14 TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG

Special Shipping      Not dangerous goods.  
Notes

### 15 REGULATORY INFORMATION

Regulatory Information

Irritant

SARA

Sara 302                  No chemicals in this material are subject to the reporting requirements.

Component

Sara 313                  No chemicals in this material are subject to the reporting requirements.

Component

SARA 311/312 Hazards

Acute (Y/N)              Y

STATE REGULATIONS

Massachusetts          No

Right to Know

Pennsylvania Right    Yes

to Know

New Jersey Right      Yes

to Know

California                This product does not contain any chemicals known to the State of California to cause cancer,  
Proposition 65            birth defects, or any other reproductive harm.

Canada

DSL Status                Not available

EU

Hazard                     Irritant



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### Safety Statements

Wear suitable protective clothing, gloves and eye/face protection.

Keep container tightly closed and in a well-ventilated place.

Do not breathe gas/fumes/vapour/spray.

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Use only in well-ventilated areas.

In case of accident by inhalation: remove casualty to fresh air and keep at rest.

### Risk Statements

Irritating to eyes, respiratory system and skin.

### 16 OTHER INFORMATION

#### Additional MSDS Information

This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Approved On 09/19/14  
Version Number 2