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# **MATERIAL SAFETY DATA SHEET**

### CHEMICAL PRODUCT AND COMPANY INFORMATION

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

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

E-mail cilsales@isotope.com Web Site www.isotope.com

**Phone Numbers** 

**Emergency Contact** Chemtrec

**Emergency Phone** 1-800-424-9300 (24 hours)

**Customer Service** 

Phone

1-800-322-1174 (8:30-5:30 EST)

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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# **MATERIAL SAFETY DATA SHEET**

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 containinated 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 2 Health

## NFPA Codes

0 Fire 2 Health Reactivity 0

## Potential Health Effects

Causes eye irritation. Eyes

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.

### **COMPOSITION / INFORMATION ON INGREDIENTS** 3

## Composition / Information on Ingredients

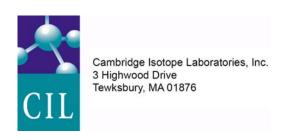
4-Amino-2,2,6,6-tetramethylpiperidinyloxy, free radical. 4-Amino-TEMPO Synonyms

Chemical Formula C9H2D17\*NNO

Molecular Weight 189.35 CAS No. 97461-87-5 EC No. 238-738-2

## **FIRST AID MEASURES**

First Aid Measures



# **MATERIAL SAFETY DATA SHEET**

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 Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of

Information dangerous area.

## 5 FIRE FIGHTING MEASURE

## Fire Fighting Measures

Extinguishing Media Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

Hazardous Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides

Decomposition (NOx)

Fire Fighting

Equipment

Wear self contained breathing apparatus for fire fighting if necessary.

## 6 ACCIDENTAL RELEASE MEASURES

### Accidental Release Measures

Personal Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

Precautions Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental

Precautions

Do not let product enter drains.

Methods and materials for

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable,

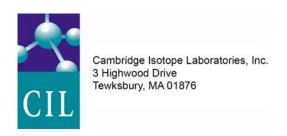
closed containers for disposal.

containment and

cleanup

## 7 HANDLING AND STORAGE

Precautions for Safe Handling



# **MATERIAL SAFETY DATA SHEET**

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.

#### **EXPOSURE CONTROL / PERSONAL PROTECTION** 8

Personal Protecton

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

No data available Odor Odor Threshold No data available

рΗ No data available 0 °C (32 °F) - lit Melting Point **Boiling Point** No data available Flashpoint No data available **Evaporation Rate** No data available No data available Fammability No data available Flammable Limits No data available Lower Explosion

Limit

**Upper Explosion** 

Limit

No data available

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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 No data available Auto Ignition

Temperature

Decomposition No data available

Temperature

Viscosity No data available

#### STABILITY AND REACTIVITY 10

Stability and Reactivity

Reactions

Stable if stored under recommended conditions. Chemical Stability

Possibility of Not available Hazardous

Conditions to Avoid Not available

Hazardous Formed under fire conditions: Carbon oxides, Nitrogen oxides (NOx) decomposition products

Materials to avoid Strong oxidizing agents

#### 11 **TOXICOLOGICAL INFORMATION**

**Acute Toxicity** 

Serious No data available

Damage/Eye Irritation

Skin No data available

Corrosion/Irritation

Inhalation No data available

Respiratory or Skin

Not available

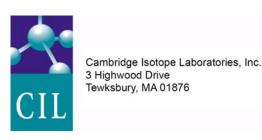
Sensitization

Not available

Germ Cell Mutagenicity

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# **MATERIAL SAFETY DATA SHEET**

Not available Carcinogenicity

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**

Persistance and Degradability

Not available

Bioaccumulative

Potential

Not available

Mobility in Soil

Not available

PBT and vPvB

Not available

Assessment

Other Adverse

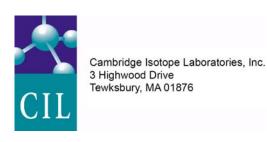
Not available

**Effects** 

### **DISPOSAL CONSIDERATIONS** 13

**Disposal Considerations** 

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# **MATERIAL SAFETY DATA SHEET**

**Product Disposal** 

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

### TRANSPORT INFORMATION

Transportation Information-DOT/IATA/IMDG

Special Shipping

Notes

Not dangerous goods.

#### **REGULATORY INFORMATION** 15

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) Υ

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,

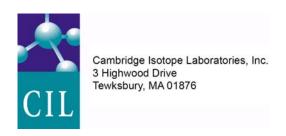
Proposition 65 birth defects, or any other reproductive harm.

Canada

**DSL Status** Not available

ΕU

Hazard Irritant



# **MATERIAL SAFETY DATA SHEET**

## 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.

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Approved On Version Number 09/19/14

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