

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Thiofanox

Product Number : 45314  
Brand : Riedel

Company : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832  
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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C<sub>9</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>S  
Molecular Weight : 218.32 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Thiofanox</b>			
39196-18-4	254-346-4	006-064-00-6	-

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

##### OSHA Hazards

Highly toxic by ingestion, Highly toxic by skin absorption

#### HMIS Classification

Health Hazard: 3

Flammability: 0

Physical hazards: 0

#### NFPA Rating

Health Hazard: 3

Fire: 0

Reactivity Hazard: 0

#### Potential Health Effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Skin** May cause skin irritation. May be fatal if absorbed through skin.

**Eyes** May cause eye irritation.

**Ingestion** May be fatal if swallowed.

### 4. FIRST AID MEASURES

**General advice**

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

**If inhaled**

If breathed in, move person into fresh air. If not breathing give artificial respiration Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**5. FIRE-FIGHTING MEASURES****Flammable properties**

Flash point > 100.00 °C (> 212.00 °F)

Ignition temperature no data available

**Suitable extinguishing media**

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

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**

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

**Methods for cleaning up**

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**

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

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Contains no substances with occupational exposure limit values.

**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves.

**Eye protection**

Safety glasses

**Skin and body protection**

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

**Hygiene measures**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	solid
Colour	colourless

**Safety data**

pH	no data available
Melting point	no data available
Boiling point	no data available
Flash point	> 100.00 °C (> 212.00 °F)
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	insoluble

**10. STABILITY AND REACTIVITY****Storage stability**

Stable under recommended storage conditions.

**11. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - 8.5 mg/kg  
LC50 Inhalation - rat - 70 mg/m<sup>3</sup>  
LD50 Dermal - rabbit - 39 mg/kg

**Irritation and corrosion**

no data available

**Sensitisation**

no data available

**Chronic exposure**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified 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 identified 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 identified 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.

#### Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May cause skin irritation. May be fatal if absorbed through skin.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be fatal if swallowed.

#### Additional Information

RTECS: EL8200000

## 12. ECOLOGICAL INFORMATION

#### Elimination information (persistence and degradability)

no data available

#### Ecotoxicity effects

no data available

#### Further information on ecology

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 13. DISPOSAL CONSIDERATIONS

#### Product

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### Contaminated packaging

Dispose of as unused product.

## 14. TRANSPORT INFORMATION

#### DOT (US)

UN-Number: 2811 Class: 6.1 Packing group: I  
Proper shipping name: Toxic solids, organic, n.o.s. (Thiofanox)  
Marine pollutant: No  
Poison Inhalation Hazard: No

#### IMDG

UN-Number: 2811 Class: 6.1 Packing group: I EMS-No: F-A, S-A  
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Thiofanox)  
Marine pollutant: No

#### IATA

UN-Number: 2811 Class: 6.1 Packing group: I  
Proper shipping name: Toxic solid, organic n.o.s. (Thiofanox)

IATA Passenger: Not permitted for transport

## 15. REGULATORY INFORMATION

### OSHA Hazards

Highly toxic by ingestion, Highly toxic by skin absorption

### DSL Status

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

Thiofanox	CAS-No. 39196-18-4
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### SARA 302 Components

Thiofanox	CAS-No. 39196-18-4	Revision Date 1991-07-01
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### SARA 313 Components

SARA 313: 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 Health Hazard

### Massachusetts Right To Know Components

Thiofanox	CAS-No. 39196-18-4	Revision Date 1991-07-01
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### Pennsylvania Right To Know Components

Thiofanox	CAS-No. 39196-18-4	Revision Date 1991-07-01
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### New Jersey Right To Know Components

Thiofanox	CAS-No. 39196-18-4	Revision Date 1991-07-01
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### California Prop. 65 Components

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

## 16. OTHER INFORMATION

### Further information

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