

# MSDS MATERIAL SAFETY DATA SHEET

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Oakwood Products, Inc  
1741 Old Dunbar Road  
West Columbia, SC 29172  
www.oakwoodchemical.com

Phone Numbers:

Product Information	803-739-8800
Transportation Emergency	800-451-8346
Outside the USA	760-602-8700

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## MATERIAL IDENTIFICATION

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NAME: 5-Morpholin-4-yl-1,3,4-thiadiazole-2-thiol  
CAS#: [51412-74-9]  
CAT#: 19312  
For R&D use only.

## HEALTH HAZARD INFORMATION

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### IRRITANT

Irritating to skin, eyes, and respiratory system.  
May have harmful effects if inhaled or swallowed.  
Avoid prolonged exposure.  
Do not breathe vapor.  
Use caution when handling.  
Exposure to any chemical should be limited.  
To the best of our knowledge, the health hazards of this material have not been fully investigated.  
Material is for research and development purposes only.

## EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Avoid all direct contact with product.

Wear protective safety goggles.  
Wear chemical-resistant gloves.  
Wear protective clothing and boots.  
Ensure ventilation during use.  
After contact with skin, wash immediately.

## FIRST AID

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EYE CONTACT: Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes while keeping eyes open. COLD water may be used. Seek medical attention.  
SKIN CONTACT: After contact with skin, wash with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. COLD water may be used. Cover the irritated skin with an emollient. Seek medical attention. Wash any contaminated clothing before reusing.  
INHALATION: Remove victim from source of exposure to fresh air. If breathing is difficult administer oxygen. Seek medical attention.  
INGESTION: Do not induce vomiting. Give water to victim to drink. Seek medical attention.

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## FIRE MEASURES

**Extinguishing media:** carbon dioxide, dry chemical powder, alcohol or polymer foam.

**Special fire-fighting procedures:** Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Unusual fire and explosion hazards/decomposition of product:** emits toxic fumes under fire conditions.

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## HANDLING AND STORAGE INFORMATION

### IRRITANT

#### AVOID PROLONGED USE

#### AVOID ALL DIRECT CONTACT WITH MATERIAL

#### Wash thoroughly after handling.

Do not breathe dust or vapor.

Have safety shower and eye wash available.

Do not get in eyes, on skin, on clothing.

Keep container tightly closed.

Store in a cool, dry, well-ventilated area.

Ensure adequate ventilation during use.

Use only in a chemical fume hood.

Avoid sources of ignition.

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## ACCIDENTAL RELEASE MEASURES

**Steps to be taken if material is released or spilled:** Wear appropriate respirator, rubber boots and heavy rubber gloves. Scoop up and place in an appropriate container. Ventilate area and wash spill site after pickup is complete. Wash skin immediately with plenty of water. Absorb on sand or vermiculite and place in closed containers for disposal.

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## DISPOSAL INFORMATION

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

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## PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: solid

MF: C<sub>6</sub>H<sub>9</sub>N<sub>3</sub>OS<sub>2</sub>

MW: 203.29

BP: no data

MP: 176-178°C

DEN: no data

N<sub>d</sub><sup>20</sup>: no data

FP: no data

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June 10, 2009

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## REACTIVITY DATA

INCOMPATIBILITIES: strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: may evolve carbon monoxide, carbon dioxide, nitrogen oxides, and sulfur oxides.

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## TOXICITY INFORMATION

### ACUTE EFFECTS:

Irritant

May be harmful by ingestion and inhalation.

Material is irritating to mucous membranes and upper respiratory tract.

To the best of our knowledge, the toxicological properties of this product have not been fully determined.

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## TRANSPORT INFORMATION

Classed non-hazardous for shipping.

*The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.*