

# Vulkacit Thiuram

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This document provides a brief description of Tetramethylthiuram Disulfide, its uses, and the potential hazards associated with short and long term exposure. Environmental impact information for accidental releases is included. This information is general in nature and is not intended as a replacement for the safety data sheet (SDS), product label and other safe handling literature. For additional information consult the LANXESS safety data sheet.

## Identification

<b>Product Name:</b>	Vulkacit Thiuram/C
<b>Chemical Name:</b>	Tetramethylthiuram disulfide
<b>Synonym(s):</b>	Bis (dimethylthiocarbamoyl) disulfide Tetramethylthioperoxydicarbonic diamide Thiram TMTD
<b>CAS Number:</b>	137-26-8

## Description

<b>Overview:</b>	Tetramethylthiuram Disulfide is a tan to gray solid at ambient temperatures. The chemical has a characteristic odor and is sold by LANXESS in powder form.
<b>Uses:</b>	Tetramethylthiuram Disulfide is sold by LANXESS primarily for use as a rubber additive (accelerator, peptizing agent, vulcanizing agent). The chemical may also be used as an additive in the manufacture of plastics and as an ingredient in pesticides, insecticides, agricultural disinfectants, antiseptic sprays, commercial and surgical soaps, wood preservatives, lubricating oils and other products.
<b>Properties:</b>	<b>Melting Point:</b> > 287.6°F (142°C) <b>Solubility in Water:</b> Slight

### Potential Human Health Effects

#### Occupational Exposure

Potential for occupational exposure exists during manufacture, at transloading facilities, during transfers to storage or staging areas and during weighing and mixing operations. A much lower potential for exposure to Tetramethylthiuram Disulfide exists in facilities using the chemical in closed manufacturing processes by trained personnel.

#### Employee Training

Workers handling Tetramethylthiuram Disulfide are trained to implement proper handling procedures and to understand the potential health and physical hazards of this product. A NIOSH approved full-face airline respirator or self-contained breathing apparatus is recommended for transloading, unloading and other operations not contained within a closed system. In addition, LANXESS recommends that goggles, permeation resistant clothing, gloves and foot protection be worn when handling Tetramethylthiuram Disulfide. Engineering or process controls may be necessary in operations where the chemical is heated to decomposition.

#### Consumer Exposure

LANXESS does not sell Tetramethylthiuram Disulfide to the general public. Rubber goods manufactured using the chemical as an additive may retain the substance in encapsulated form. Persons susceptible to allergic skin reactions may experience contact dermatitis as a result of direct skin contact with such products.

#### Short-Term Health Effects

Tetramethylthiuram Disulfide may be irritating to skin with symptoms of redness and itching. Susceptible individuals may experience an allergic skin reaction with symptoms of redness, itching, swelling or rash. Tetramethylthiuram Disulfide dust may be irritating to eyes with symptoms of redness, tearing, burning, and possible permanent damage. Inhaling Tetramethylthiuram Disulfide dust may be irritating to the upper respiratory tract with symptoms of cough, tightness of chest, and shortness of breath. Tetramethylthiuram Disulfide may be harmful if swallowed. Symptoms of ingestion may include abdominal pain, nausea, vomiting or diarrhea. Inhaling or ingesting sufficient quantities of the chemical may cause nervous system effects with symptoms of headache, dizziness, lack of coordination, numbness or confusion.

#### Long-Term Health Effects

Prolonged skin contact may cause an allergic skin reaction in sensitive individuals. Skin sensitization is possible. Prolonged or repeated inhalation of Tetramethylthiuram Disulfide may cause adverse respiratory effects including coughing, tightness of the chest and shortness of breath. Repeated ingestion of Tetramethylthiuram Disulfide may cause drowsiness, confusion, loss of libido, slurred speech, weakness or behavioral abnormalities.

### Physical Hazards

Tetramethylthiuram Disulfide is a stable, combustible solid under normal conditions of use. Direct contact with acids or strong oxidizing agents may present a fire or explosion hazard with release of hydrogen sulfide and other toxic gases. High concentrations of Tetramethylthiuram Disulfide dust may form explosive mixtures with air. Heating to decomposition may release sulfur dioxide, carbon disulfide, carbon monoxide and other toxic fumes. Exposure to heat, open flames and other potential sources of ignition should be avoided.

### Potential Environmental Impact

Tetramethylthiuram Disulfide is not readily biodegradable but degrades rapidly from exposure to sunlight and moisture in the environment. An accidental release to water may pose a danger to fish (high toxicity), invertebrates (high toxicity) and aquatic plants (high toxicity) prior to degradation. Bioaccumulation is not expected.

### Conclusion

Under normal conditions of anticipated use as described in this Product Safety Assessment, and if the recommended safe use and handling procedures are followed, Tetramethylthiuram Disulfide is not expected to pose a significant risk to human health or the environment.

### References

**Integrated Risk Information System (IRIS) - Thiram (CASRN 137-26-8)**, U.S. Environmental Protection Agency (EPA)

**International Chemical Safety Card**, International Programme on Chemical Safety (IPCS)

**Safety Data Sheet (SDS), VULKACIT THIURAM/C**, LANXESS Corporation **MedlinePlus**

**Medical Encyclopedia**, U.S. National Library of Medicine and the National Institutes of Health

**NIOSH Pocket Guide to Chemical Hazards**, U.S. National Library of Medicine and the National Institutes of Health

**Occupational Safety and Health Guideline for Thiram**, Occupational Safety and Health Administration (OSHA), U.S. Department of Labor

**Screening Level Hazard Characterization - Thiuram Category**, U.S. Environmental Protection Agency (EPA)

**ToxNet Hazardous Substance Data Bank**, U.S. National Library of Medicine National Institutes of Health and the U.S. Department of Health and Human Services

### Contact Information

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## **Notices**

### **Use and Application Information**

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