

Material Safety Data Sheet Thiourea Dioxide

Section 1: Chemical Product and Company Identification

Product Name : Thiourea Dioxide
Chemical Formula : $\text{CH}_4\text{N}_2\text{O}_2\text{S}$
Company Identification : Tradeasia International Pte Ltd
Email : contact@chemtradeasia.com

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS#	% by Weight
Thiourea Dioxide	1758-73-2	100

Toxicological Data on Ingredients: Not available.

Section 3: Hazards Identification

Harmful if swallowed. Irritating to eyes, respiratory system and skin. Moisture sensitive. The toxicological properties of this material have not been fully investigated.

Potential Health Effects

Eye: Causes eye irritation. May cause chemical conjunctivitis.

Skin: Causes skin irritation.

Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. The toxicological properties of this substance have not been fully investigated.

Inhalation: Causes respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. Can produce delayed pulmonary edema.

Chronic: Effects may be delayed.

Section 4: First Aid Measures

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin Contact:

Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

Serious Skin Contact:

Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Serious Inhalation: Not available.

Ingestion: Not available.

Serious Ingestion: Not available.

Notes to Physician: Treat symptomatically and supportively.

Section 5: Fire and Explosion Data

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use agent most appropriate to extinguish fire. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Section 6: Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7: Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage:

Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep refrigerated. (Store below 4C/39F.)

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits CAS# 1758-73-2: Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9: Physical and Chemical Properties

Physical State	: Solid
Color	: White
Odor	: None reported.
pH	: Not available.
Vapor Pressure	: Not available.
Viscosity	: Not available.
Boiling Point	: Not available.
Freezing/Melting Point	: 126 deg C
Autoignition Temperature	: Not applicable.

Flash Point : Not applicable.
Explosion Limits, lower : Not available.
Explosion Limits, upper : Not available.
Decomposition Temperature : >123 deg C
Solubility in water : 30 g/l (20 c)
Specific Gravity/Density : Not available.
Molecular Formula : CH₄N₂O₂S
Molecular Weight : 108.11

Section 10: Stability and Reactivity Data

Chemical Stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid:

Incompatible materials, dust generation, excess heat, strong oxidants.

Incompatibilities with Other Materials:

Oxidizing agents.

Hazardous Decomposition Products:

Nitrogen oxides, carbon monoxide, oxides of sulfur, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

Hazardous Polymerization: Has not been reported.

Section 11: Toxicological Information

RTECS#:

CAS# 1758-73-2: PB0372500 LD50/LC50: Not available

Carcinogenicity: Formamidinesulfinic Acid - Not listed by ACGIH, IARC, or NTP.

Other: See actual entry in RTECS for complete information.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Not available.

Toxicity of the Products of Biodegradation: Not available.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

IATA

Not regulated as a hazardous material.

IMO

Not regulated as a hazardous material.

RID/ADR

Not regulated as a hazardous material.

Section 15: Other Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Risk Phrases:

R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system
and skin.

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

S 28A After contact with skin, wash immediately with
plenty of water.

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek
medical advice immediately (show the label where
possible).

WGK (Water Danger/Protection)

CAS# 1758-73-2: 1

Canada

CAS# 1758-73-2 is listed on Canada's DSL List.

CAS# 1758-73-2 is not listed on Canada's Ingredient Disclosure List.

US FEDERAL

TSCA

CAS# 1758-73-2 is listed on the TSCA inventory.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Tradeasia International Pte. Ltd. Be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.