



杭州大阳化工有限公司

Hangzhou Dayangchem Co., Ltd.

Safety Data Sheet

No :M-10738

Section 1 - Product and Company Identification

MSDS Name: Thiourea

Synonyms: Sulfoarea; Thiocarbamide

Company Identification: Hangzhou Dayangchem Co., Ltd.

For information, call: 86-571-88938639

For information,E-mail: infores@chinadayangchem.com

Emergency Number: 86-571-88938639

For CHEMTREC assistance, call: 86-571-88938639; FAX:86-571-88938652

Section 2 – Hazards Identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Carcinogenicity (Category 2)

Reproductive toxicity (Category 2)

Acute toxicity, Oral (Category 4)

Chronic aquatic toxicity (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Limited evidence of a carcinogenic effect. Possible risk of harm to the unborn child. Harmful if swallowed.

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

Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word Warning

Hazard statement(s)

H302 Harmful if swallowed.

H351 Suspected of causing cancer.

H361d Suspected of damaging the unborn child.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-phrase(s)

R22 Harmful if swallowed.

R40 Limited evidence of a carcinogenic effect.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R63 Possible risk of harm to the unborn child.

S-phrase(s)

S36/37 Wear suitable protective clothing and gloves.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Other hazards-none

Section 3 – Composition/Information on Ingredients

CAS#	Chemical Name	%	EINECS#
62-56-6	Thiourea	99	200-543-5

Section 4 - First Aid Measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance.

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. Consult a physician.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

Section 5 - Fire Fighting Measures

Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

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

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

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.

Spills/Leaks: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7 - Handling and Storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

Storage: Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Handle and store under inert gas.

Section 8 - Exposure Controls, Personal Protection

Contains no substances with occupational exposure limit values.

Personal Protective Equipment

Eyes: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Clothing: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respirators: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (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).

Section 9 - Physical and Chemical Properties

Physical State: Crystalline.

Color: white

Odor: odourless

pH: 5.0 - 7 at 50 g/l at 20 °C

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 170 - 176 °C

Autoignition Temperature: Not available.

Flash Point: Not available.

Explosion Limits:Lower: Not available.

Explosion Limits Upper: Not available.

Decomposition Temperature: Not available.

Solubility in water: 137 g/l at 20 °C

Specific Gravity/Density: 1.405 g/cm³ at 20 °C

Bulk density (kg/m³): 640 kg/m³

Molecular Formula: CH₄N₂S

Molecular Weight: 76.12

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Heat.

Incompatibilities with Other Materials: Strong oxidizing agents, Strong acids, Strong bases

Hazardous Decomposition Products: Carbon oxides, nitrogen oxides (NO_x), Sulphur oxides

Section 11 - Toxicological Information

RTECS#: CAS# 62-56-6: YU2800000

LD50/LC50: RTECS: LD50 Oral - rat - 1,750 mg/kg

LD50 Dermal - rabbit - > 2,800 mg/kg

Respiratory or skin sensitization

May cause allergic skin reaction.

Carcinogenicity: Thiourea- Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Section 12 - Ecological Information

Toxicity

Toxicity to fish

LC50 - Danio rerio (zebra fish) - 10.000 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 5.6 - 18.0 mg/l - 48 h

Toxicity to algae

EC50 - Desmodesmus subspicatus (green algae) - 6.8 mg/l - 96 h

Persistence and degradability

Biodegradability Biotic/Aerobic - Exposure time 31 d

Result: < 1 % - Not readily biodegradable.

Other adverse effects

Toxic to aquatic life with long lasting effects.

Section 13 - Disposal Considerations

Product: Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

Section 14 - Transport Information

	IMO	RID/ADR	IATA
Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiourea)	Environmentally hazardous substance, solid, n.o.s. (Thiourea)
Hazard Class:	9	9	9
UN Number:	3077	3077	3077
Packing Group:	III	III	III
marine pollutant: yes			
other applicable information: Not available.			

Section 15 - Regulatory Information

This safety data sheet complies with the requirements of Regulation (EC) No 1907/2006

Section 16 - Other Information

MSDS Creation Date: 23/09/2007

Revision #1 Date: 25/07/2012

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 event shall the company 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 the company has been advised of the possibility

of such damages.