

Material Safety Data Sheet

Thioacetamide, reagent ACS, 99+%

ACC# 23300

Section 1 - Chemical Product and Company Identification

MSDS Name: Thioacetamide, reagent ACS, 99+%

Catalog Numbers: AC172550000, AC172550010, AC172550250, AC172551000, AC424530000, AC424530250, AC424531000, T102-100, T102-500, T103-100, T103-50, T103-500

Synonyms: Ethanethioamide; TAA; Thiacetamide; Thioacetimidic acid; Acetothioamide.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
62-55-5	Thioacetamide	> 99	200-541-4

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: white solid.

Warning! Harmful if swallowed. Causes eye and skin irritation. May be harmful if absorbed through the skin. May cause respiratory tract irritation. May cause cancer based on animal studies. May cause liver damage.

Target Organs: Central nervous system, liver.

Potential Health Effects

Eye: Causes eye irritation.

Skin: Causes skin irritation. May be absorbed through the skin in harmful amounts. If absorbed, causes symptoms similar to those of ingestion.

Ingestion: Harmful if swallowed. May cause liver damage. Contact with stomach acid may liberate toxic hydrogen sulfide gas. Hydrogen sulfide affects the nervous system producing headache, dizziness, excitement, staggering gait, diarrhea, and painful or difficult urination. H₂S doesn't combine with hemoglobin; its asphyxiant action is due to paralysis of the respiratory center

Inhalation: May cause respiratory tract irritation. May cause effects similar to those described for ingestion.

Chronic: Possible cancer hazard based on tests with laboratory animals. Chronic ingestion may cause liver damage. When administered in the diet, thioacetamide induced hepatocellular carcinomas in mice of both sexes, hepatocellular neoplasms in male rats, and bile duct or cholangiocellular neoplasms in rats of both sexes.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.

Skin: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: 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. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Flash Point: Not applicable.

Autoignition Temperature: Not available.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 2; Flammability: 1; Instability: 0

Section 6 - Accidental Release Measures

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

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation. U.S. regulations require reporting spills and releases to soil, water and air in excess of reportable quantities.

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. Avoid breathing dust.

Storage: Store in a cool, dry place. Keep containers tightly closed.

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

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Thioacetamide	none listed	none listed	none listed

OSHA Vacated PELs: Thioacetamide: No OSHA Vacated PELs are listed for this chemical.

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

Appearance: white

Odor: odor of mercaptans - weak odor

pH: Not available.

Vapor Pressure: Negligible.

Vapor Density: Not applicable.

Evaporation Rate: Negligible.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: 111 - 114 deg C

Decomposition Temperature: Not available.

Solubility: 16.3 G/100 ML (25°C)

Specific Gravity/Density: Not available.

Molecular Formula: C₂H₅NS

Molecular Weight: 75.13

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation.

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

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, oxides of sulfur, carbon dioxide, hydrogen sulfide, acetonitrile.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 62-55-5: AC8925000

LD50/LC50:

CAS# 62-55-5:

Oral, rat: LD50 = 301 mg/kg;

Carcinogenicity:

CAS# 62-55-5:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Group 2B carcinogen

Epidemiology: Thioacetamide has been identified as a carcinogen or potential carcinogen for hazard communication purposes.

Teratogenicity: See actual entry in RTECS for complete information.

Reproductive Effects: See actual entry in RTECS for complete information.

Mutagenicity: Mutagenicity data exists for thioacetamide. It is on the EPA GenTox Program 1988, with both positive and negative results.

Neurotoxicity: No information found

Other Studies:

Section 12 - Ecological Information

Ecotoxicity: Water flea Daphnia: 17400 ug/L; 48 hr.; LC50 No data available.

Environmental: Thioacetamide has a very low log octanol/water partition coefficient, -1.02, and therefore should not bioconcentrate in fish. Thioacetamide is very soluble in water and such chemicals do not significantly adsorb to soil.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 62-55-5: waste number U218.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	TOXIC SOLID ORGANIC NOS (THIOACETAMIDE)
Hazard Class:		6.1
UN Number:		UN2811
Packing Group:		III

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 62-55-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 62-55-5: 10 lb final RQ; 4.54 kg final RQ

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 62-55-5: immediate, delayed.

Section 313

This material contains Thioacetamide (CAS# 62-55-5, > 99%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 62-55-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Thioacetamide, a chemical known to the state of California to cause cancer. California No Significant Risk Level: CAS# 62-55-5: 0.1 æg/day NSRL

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

T

Risk Phrases:

R 22 Harmful if swallowed.

R 36/38 Irritating to eyes and skin.

R 45 May cause cancer.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

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

S 53 Avoid exposure - obtain special instructions before use.

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

WGK (Water Danger/Protection)

CAS# 62-55-5: 2

Canada - DSL/NDSL

CAS# 62-55-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D1B, D2A.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 62-55-5 is listed on the Canadian Ingredient Disclosure List.

MSDS Creation Date: 12/12/1997

Revision #8 Date: 2/15/2008

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