

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 1 of 10

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

THIOACETIC ACID

OTHER NAMES

C2-H4-O-S, C2-H4-O-S, CH₃COSH, thiolacetic, thiactic, thionacetic, ethanethioic, "ethanethiolic acid", "acetyl mercaptan", "methanecarbothiolic acid"

PROPER SHIPPING NAME

THIOACETIC ACID

PRODUCT USE

Reagent in organic synthesis.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V. INDUSTRIAL ESTATE,

248, WORLI,

MUMBAI- 400030.INDIA.

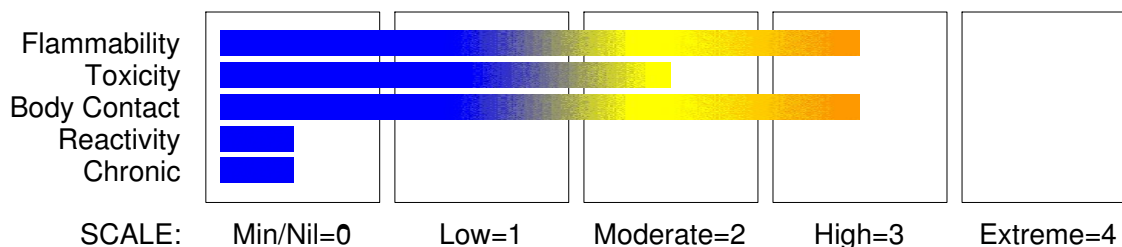
technical@sdfine.com

Telephone: 91- 22- 24959898

Telephone: 91- 22- 24959899

Fax: 91- 22- 24937232

HAZARD RATINGS



Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Flammable Liquid Category 2

Skin Corrosion/Irritation Category 1C

continued...

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 2 of 10

Section 2 - HAZARDS IDENTIFICATION



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria:

H225 H314

Highly flammable liquid and vapour

Causes severe skin burns and eye damage

PRECAUTIONARY STATEMENTS

Prevention

Do not breathe dust or mist.

Use only non-sparking tools.

Take precautionary measures against static discharge

Wear protective gloves/clothing and eye/face protection.

Wash thoroughly after handling.

Ground/bond container and receiving equipment.

Keep container tightly closed.

Keep away from heat/sparks/open flame - No smoking.

Wear protective gloves and eye/face protection.

Use explosion-proof electrical/ventilating/lighting/equipment

Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Wash contaminated clothing before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

If on skin or hair: remove/take off immediately all contaminated clothing. Rinse with water/shower.

Immediately call a POISON CENTER or doctor/physician.

Storage

Store locked up.

Disposal

Dispose of contents and container in accordance with relevant legislation.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
thioacetic acid	507-09-5	98

continued...

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 3 of 10

Section 4 - FIRST AID MEASURES

SWALLOWED

For advice, contact a Poisons Information Centre or a doctor.

- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

Immediately transport to hospital or doctor. DO NOT delay.

EYE

If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

If skin or hair contact occurs:

- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

For acute or short term repeated exposures to strong acids:

- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the dessicating action of the acid on proteins in specific tissues.

INGESTION:

continued...

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 4 of 10

Section 4 - FIRST AID MEASURES

- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended.
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury.
- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one or two glasses in an adult.
- Charcoal has no place in acid management.
- Some authors suggest the use of lavage within 1 hour of ingestion.

SKIN:

- Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping.
- Deep second-degree burns may benefit from topical silver sulfadiazine.

EYE:

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes. DO NOT use neutralising agents or any other additives. Several litres of saline are required.
 - Cycloplegic drops, (1% cyclopentolate for short-term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury.
 - Steroid eye drops should only be administered with the approval of a consulting ophthalmologist).
- [Ellenhorn and Barceloux: Medical Toxicology].

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.

FIRE/EXPLOSION HAZARD

- Liquid and vapour are highly flammable.
 - Severe fire hazard when exposed to heat, flame and/or oxidisers.
 - Vapour forms an explosive mixture with air.
 - Severe explosion hazard, in the form of vapour, when exposed to flame or spark.
 - Vapour may travel a considerable distance to source of ignition.
 - Heating may cause expansion / decomposition with violent rupture of containers.
 - On combustion, may emit toxic fumes of carbon monoxide (CO) May emit poisonous fumes.
- May emit corrosive fumes.
- Decomposes on heating and produces acrid and toxic fumes of: sulfur oxides (SO_x).

FIRE INCOMPATIBILITY

Avoid contamination with strong oxidisers.

continued...

THIOACETIC ACID

Section 6 - ACCIDENTAL RELEASE MEASURES

EMERGENCY PROCEDURES

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable labelled container for waste disposal.

MAJOR SPILLS

Clear area of personnel. Restrict access to area.

DO NOT touch the spill material.

Pollutant

- Clear area of personnel and move upwind.
 - Alert Fire Brigade and tell them location and nature of hazard.
 - May be violently or explosively reactive.
 - Wear breathing apparatus plus protective gloves.
 - Prevent, by any means available, spillage from entering drains or water course.
 - Consider evacuation (or protect in place).
 - No smoking, naked lights or ignition sources.
 - Increase ventilation.
 - Stop leak if safe to do so.
 - Water spray or fog may be used to disperse vapour.
 - Contain or absorb spill with sand, earth or vermiculite.
 - Use only spark-free shovels and explosion proof equipment.
 - Collect recoverable product into labelled containers for recycling.
 - Collect solid residues and seal in labelled drums for disposal.
 - Wash area and prevent runoff into drains.
 - After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
 - If contamination of drains or waterways occurs, advise emergency services.
- Personal Protective Equipment advice is contained in Section 8 of the MSDS.**

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- Avoid smoking, naked lights, heat or ignition sources.
- When handling, DO NOT eat, drink or smoke.
- Vapour may ignite on pumping or pouring due to static electricity.
- DO NOT use plastic buckets.
- Earth and secure metal containers when dispensing or pouring product.
- Use spark-free tools when handling.
- Avoid contact with incompatible materials.
- Keep containers securely sealed.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 6 of 10

Section 7 - HANDLING AND STORAGE

- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions.

SUITABLE CONTAINER

Glass container or Plastic container Plastic containers may only be used if approved for flammable liquids.

STORAGE INCOMPATIBILITY

Segregate from strong oxidisers.
Segregate from alkalis, oxidising agents and chemicals readily decomposed by acids, i.e. cyanides, sulfides, carbonates.
DO NOT use mild steel or galvanised containers.

STORAGE REQUIREMENTS

- Store in original containers in approved flame-proof area.
- No smoking, naked lights, heat or ignition sources.
- DO NOT store in pits, depressions, basements or areas where vapours may be trapped.
- Keep containers securely sealed.
- Store away from incompatible materials in a cool, dry well ventilated area.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+: May be stored together

O: May be stored together with specific precautions

X: Must not be stored together

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

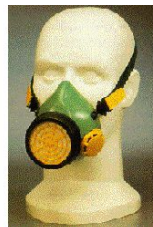
The following materials had no OELs on our records

- thioacetic acid: CAS:507- 09- 5

MATERIAL DATA

No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION



continued...

THIOACETIC ACID

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE

· Chemical goggles · Full face shield.
DO NOT wear contact lenses. · Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].

HANDS/FEET

· Barrier cream Polyethylene gloves.
Viton gloves.

OTHER

· Overalls.
· P.V.C. apron.
· Barrier cream.
· Skin cleansing cream.
· Eye wash unit.
Ensure there is ready access to an emergency shower.

RESPIRATOR

Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)	Maximum Protection Factor	Half- face Respirator	Full- Face Respirator
1000	10	A- AUS P	-
1000	50	-	A- AUS P
5000	50	Airline *	-
5000	100	-	A- 2 P
10000	100	-	A- 3 P
	100+		Airline**

* - Continuous Flow

** - Continuous-flow or positive pressure demand.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.
For further information consult your
Occupational Health and Safety Advisor.

ENGINEERING CONTROLS

Use in a well-ventilated area.
If risk of inhalation or overexposure exists, wear SAA approved respirator or work in fume hood.

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 8 of 10

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear highly flammable liquid, pungent disagreeable smell.
Material is a lachrymator. Soluble in water. Soluble in alcohol.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.
Acid.

Molecular Weight: 76.12
Melting Range (°C): - 17
Solubility in water (g/L): Soluble
pH (1% solution): Not available
Volatile Component (%vol): 100
Relative Vapour Density (air=1): >1.0
Lower Explosive Limit (%): Not available
Autoignition Temp (°C): Not available
State: Liquid

Boiling Range (°C): 93
Specific Gravity (water=1): 1.07
pH (as supplied): Not available
Vapour Pressure (kPa): Not available
Evaporation Rate: Not available
Flash Point (°C): 2
Upper Explosive Limit (%): Not available
Decomposition Temp (°C): Not available

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
Considered an unlikely route of entry in commercial/industrial environments.
Overexposure is unlikely in this form.
Ingestion may result in nausea, abdominal irritation, pain and vomiting.
Ingestion of low-molecular organic acid solutions may produce spontaneous haemorrhaging, intravascular coagulation, gastrointestinal damage and oesophageal and pyloric stricture.

EYE

The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.
When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
Dilute solutions of low-molecular organic acids cause conjunctival hyperaemia, prompt pain and corneal injury.

continued...

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 9 of 10

Section 11 - TOXICOLOGICAL INFORMATION

SKIN

The material can produce chemical burns following direct contact with the skin.
Bare unprotected skin should not be exposed to this material.

INHALED

Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.
Inhalation hazard is increased at higher temperatures.

CHRONIC HEALTH EFFECTS

The material is considered to be harmful by all exposure routes.
Principal routes of exposure are usually by inhalation of vapour, skin contact/absorption and eye contact.
No chronic human exposure data is available.
As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

TOXICITY AND IRRITATION

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY

Intraperitoneal (mouse) LD50: 75 mg/kg

IRRITATION

Nil Reported

Skin (human): Corrosive

Eye (human): Corrosive [MERCK]

Section 12 - ECOLOGICAL INFORMATION

No data for thioacetic acid.

Section 13 - DISPOSAL CONSIDERATIONS

- Consult manufacturer for recycling options and recycle where possible .
- Consult State Land Waste Management Authority for disposal.
- Incinerate residue at an approved site.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: FLAMMABLE LIQUID
HAZCHEM: 2WE

UNDG:

Dangerous Goods Class: 3
UN Number: 2436
Shipping Name: THIOACETIC ACID

Subrisk: None
Packing Group: II

continued...

THIOACETIC ACID

GHS Safety Data Sheet

Version No:2.0

Page 10 of 10

Section 14 - TRANSPORTATION INFORMATION

Air Transport IATA:

ICAO/IATA Class:	3	ICAO/IATA Subrisk:	None
UN/ID Number:	2436	Packing Group:	II
Special provisions:	None		
Shipping Name: THIOACETIC ACID			

Maritime Transport IMDG:

IMDG Class:	3	IMDG Subrisk:	None
UN Number:	2436	Packing Group:	II
EMS Number:	F- E, S- D	Special provisions:	None
Shipping Name: THIOACETIC ACID			

Section 15 - REGULATORY INFORMATION

REGULATIONS

No regulations applicable

No data available for thioacetic acid as CAS: 507-09-5.

Section 16 - OTHER INFORMATION

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

Issue Date: 29-Jan-2018