Health	3
Fire	0
Reactivity	0
Personal Protection	E

Material Safety Data Sheet
Thallium (I) Acetate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Thallium (I) Acetate

Catalog Codes: SLT3520

CAS#: 563-68-8

RTECS: AJ5425000

TSCA: TSCA 8(b) inventory: Thallium (I) Acetate

CI#: Not available.

Synonym: Thallium acetate; Thallium Acetate; Thallous Acetate

Chemical Name: Acetic Acid, Thallium (I) salt

Chemical Formula: Tl-C2-H3-O2 or C2-H3-O2.Tl

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Thallium (I) Acetate	563-68-8	100

Toxicological Data on Ingredients: Thallium (I) Acetate: ORAL (LD50): Acute: 41.3 mg/kg [Rat]. 35 mg/kg [Mouse].

Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (permeator), of eye contact (irritant). Slightly hazardous in case of skin contact (irritant, sensitizer). Severe over-exposure can result in death.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, the nervous system, liver, heart. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

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

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: When heated to decomposition it emits toxic fumes.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill:
Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
TWA: 0.1 (mg(Tl)/m) from ACGIH (TLV) [United States] SKIN Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Deliquescent solid.)

Odor: Odorless.

Taste: Not available.

Molecular Weight: 263.43 g/mole

Color: White. Off-white.

pH (1% soln/water): Not available.

Boiling Point: Not available.

Melting Point: 129°C (264.2°F) - 131 C

Critical Temperature: Not available.

Specific Gravity: 3.68 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility:
Soluble in cold water, hot water. Soluble in alcohol, ethanol. Very soluble in chloroform

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, excess heat, dust generation.

Incompatibility with various substances: Reactive with oxidizing agents.

Corrosivity: Not available.

Special Remarks on Reactivity: Not available.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 35 mg/kg [Mouse].

Chronic Effects on Humans: May cause damage to the following organs: kidneys, the nervous system, liver, heart.

Other Toxic Effects on Humans:
Very hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (permeator). Slightly hazardous in case of skin contact (irritant, sensitizer).

Special Remarks on Toxicity to Animals:
Lowest Reported Lethal Dose: LDL[Human] - Route: Oral; Dose: 12 mg/kg

Special Remarks on Chronic Effects on Humans:
May cause birth defects (teratogenic) based on animal test data Human: passes through the placenta, excreted in maternal milk. May affect genetic material (mutagenic)

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: It may cause skin irritation. It may be absorbed by the skin and cause systemic effects similar to that of ingestion. Eyes: It may cause severe eye irritation. It may cause blurred vision, tearing, and conjunctivitis, development of cataracts. Inhalation: Inhalation of dust may cause effects similar to those described for ingestion. This material has a low vapor pressure, so exposure to vapor is unlikely. Ingestion: May be fatal if swallowed. It may cause gastroenteritis with nausea, vomiting, hypermotility, diarrhea, discharge from the mouth and nostrils, ulceration of the tongue . May cause ulceration and hemorrhaging of the digestive tract, particularly of the stomach. May affect behavior/central nervous systemCNS)/nervous system (CNS depression, headache, personality disorder, irritabililty, confusion, memory loss, slurred speech, weakness, insomnia, intellectual impair ment, ataxia, tremors, convulsions, hyptonia, spastic paraparesis, motor and sensory neuroathy), respiration (apnea, adult respiratory distress syndrome (ARDS), chest pain). It may also cause skin eruptionsdisorders, impaired vision, optic neuritis, nystagmus, ophthalamoplegia , hypertension, rapid heart rate, dysrhythmia, bluish line on gums (3 to 4 weeks)after ingestion, parotitis, liver damage(hepatitis, enlargement, fatty degeneration, elevated liver enzymes), kidney damage(congestion of the kidneys, green discoloration of urine,nephritis, proteinuria, oliguria, albuminuria, hematuria, decreased creatine clearance, increased BUN, cylindruria, metabolic acidosis, hypokalemia, anemia, thrombocytopenia, hair discoloration, Mee's line (transverse lines on finger and toe nails). Chronic Potential Health Effects: Ingestion: In chronic Thallium poisoning, the most striking feature is loss of hair. It may also cause anorexia (weight loss, loss of appetite). It may also affect the brain (degenerative changes), heart, liver (liver damage), kidneys (kidney damage), behavior/central nervous system, nervous system with symptoms similar to that of acute ingestion. Repeated or prolonged ingestion may also cause other symptoms similar to that of acute ingestion. Eyes: Repeated or prolonged eye contact may cause development of cataracts, corneal damage, glaucoma.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

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

DOT Classification: CLASS 6.1: Poisonous material.

Identification: : Thallium compound, n.o.s (Thallium (I) acetate) UNNA: 1707 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information

Federal and State Regulations:
Connecticut hazardous material survey.: Thallium (I) Acetate Illinois chemical safety act: Thallium (I) Acetate New York release reporting list: Thallium (I) Acetate Pennsylvania RTK: Thallium (I) Acetate Massachusetts RTK: Thallium (I) Acetate Massachusetts spill list: Thallium (I) Acetate New Jersey: Thallium (I) Acetate New Jersey spill list: Thallium (I) Acetate Louisiana spill reporting: Thallium (I) Acetate TSCA 8(b) inventory: Thallium (I) Acetate SARA 313 toxic chemical notification and release reporting: Thallium (I) Acetate CERCLA: Hazardous substances.: Thallium (I) Acetate: 100 lbs. (45.36 kg)

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC):
R26/28- Very toxic by inhalation and if swallowed. R33- Danger of cumulative effects. S13- Keep away from food, drink and animal feedingstuffs. S28- After contact with skin, wash immediately with plenty of [***] S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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