

MSDS Number: M1430

Effective Date: 12/08/96

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MSDS MATERIAL SAFETY DATA SHEET

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From: Mallinckrodt Baker, Inc.
222 Red School Lane
Phillipsburg, NJ 08865

CHEMTREC: 800-424-9300 (USA)

703-527-3887

(Outside USA & CANADA)

CANUTEC: 613-996-6666

Emergency Telephone Number: 908-859-2151

NOTE: Use CHEMTREC and CANUTEC
phone numbers only in the event
of a chemical emergency.

All non-emergency questions should be directed to Customer Service
(1-800-582-2537) for assistance.

M A L L I N C K R O D T

J. T. B A K E R

MERCURIC ACETATE

1. Product Identification

Synonyms: Mercuriacetate; mercuric diacetate; acetic acid, mercury
(2+) salt
CAS No: 1600-27-7
Molecular Weight: 318.70
Chemical Formula: $\text{Hg}(\text{C}_2\text{H}_3\text{O}_2)_2$

Product Codes: J.T. Baker:
2584
Mallinckrodt:
1416, H513

2. Composition/Information on Ingredients

Ingredient	CAS No	Percent	Hazardous
Mercuric Acetate	1600-27-7	90 - 100%	Yes

3. Hazards Identification

Emergency Overview

DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT; MAY CAUSE BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MERCURY COMPOUNDS AFFECT THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. BIRTH DEFECT HAZARD. CAN CAUSE BIRTH DEFECTS.

J.T. Baker SAF-T-DATA(tm) Ratings (Provided here for your convenience)

Health Rating: 3 - Severe (Poison)

Flammability Rating: 0 - None
Reactivity Rating: 0 - None
Contact Rating: 3 - Severe (Life)
Lab Protective Equip: GOGGLES; LAB COAT; VENT HOOD; PROPER GLOVES
Storage Color Code: Blue (Health)

Potential Health Effects

Inhalation:

Causes irritation to the respiratory tract. Symptoms include sore throat, coughing, pain, tightness in chest, breathing difficulties, shortness of breath and headache. Pneumonitis may develop. Can be absorbed through inhalation with symptoms to parallel ingestion.

Ingestion:

Highly Toxic! Average lethal dose for inorganic mercury salts is about 1 gram. May cause burning of the mouth and pharynx, abdominal pain, vomiting, corrosive ulceration, bloody diarrhea. May be followed by a rapid and weak pulse, shallow breathing, paleness, exhaustion, central nervous system problems, tremors and collapse. Delayed death may occur from renal failure.

Skin Contact:

Causes irritation. Symptoms include redness and pain. May cause burns. May cause sensitization. Can be absorbed through the skin with symptoms to parallel ingestion.

Eye Contact:

Causes irritation to eyes, may cause burns and eye damage.

Chronic Exposure:

Chronic exposure through any route can produce central nervous system damage. May cause muscle tremors, personality and behavior changes, memory loss, metallic taste, loosening of the teeth, digestive disorders, skin rashes, brain damage and kidney damage. Can cause skin allergies and accumulate in the body. Repeated skin contact can cause the skin to turn gray in color. Teratogen: can damage the developing fetus and decrease fertility in males and females.

Aggravation of Pre-existing Conditions:

Persons with nervous disorders, or impaired kidney or respiratory function, or a history of allergies or a known sensitization to mercury may be more susceptible to the effects of the substance.

4. First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

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

5. Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire. Do not allow water runoff to enter sewers or waterways.

Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Smoke may contain toxic mercury or mercuric oxide.

6. Accidental Release Measures

Ventilate area of leak or spill. Clean-up personnel require protective clothing and respiratory protection from dust.

Spills: Pick up and place in a suitable container for reclamation or disposal in a method that does not generate dust. Sprinkle area with sulfur or calcium polysulfide to suppress mercury.

7. Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect from physical damage and direct sunlight. Follow strict hygiene practices. Solutions are corrosive. Wear special protective equipment (Sec. 8) for maintenance break-in or where exposures may exceed established exposure levels. Wash hands, face, forearms and neck when exiting restricted areas. Shower, dispose of outer clothing, change to clean garments at the end of the day. Avoid cross-contamination of street clothes. Wash hands before eating and do not eat, drink, or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:

- OSHA Acceptable Ceiling:
for Mercury and Mercury Compounds: 1 mg/m³,
- ACGIH Threshold Limit Value (TLV):

Alkyl compounds of mercury, as Hg (skin):
0.01 mg/m3 (TWA), 0.03 mg/m3 (STEL).

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood, or full-facepiece self-contained breathing apparatus.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:

White crystals.

Boiling Point:

Not applicable.

Odor:

Slight acetic acid odor.

Melting Point:

178 - 180C (352 - 356F) Decomposes.

Solubility:

25 g/100 ml water @ 10C (50F)

Vapor Density (Air=1):

11.0

Specific Gravity:

3.27

Vapor Pressure (mm Hg):

No information found.

pH:

No information found.

Evaporation Rate (BuAc=1):

No information found.

% Volatiles by volume @ 21C (70F):

0

10. Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage. Light sensitive. Decomposes on exposure to light.

Hazardous Decomposition Products:

Emits toxic mercury vapors.

Hazardous Polymerization:

Will not occur.

Incompatibilities:

Butynediol with strong acids, and nitromethane. Mercury salts give acetylides from ammoniacal solutions. The dried acetylides are extremely sensitive and violent.

Conditions to Avoid:

Light, heat, incompatibles.

11. Toxicological Information

Toxicological Data:

Oral rat LD50: 40.9 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector.

Reproductive Toxicity:

All forms of mercury can cross the placenta to the fetus, but most of what is known has been learned from experimental animals. See Chronic Health Hazards.

-----\Cancer Lists\-----			
Ingredient	---NTP Carcinogen---		IARC Category
	Known	Anticipated	
Mercuric Acetate (1600-27-7)	No	No	None

12. Ecological Information

Environmental Fate:

For mercury: This material has an experimentally-determined bioconcentration factor (BCF) of greater than 100. This material is expected to significantly bioaccumulate.

Environmental Toxicity:

For mercury: This material is expected to be toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/l.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations.

Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: MERCURY ACETATE

Hazard Class: 6.1
 UN/NA: UN1629 Packing Group: II
 Information reported for product/size: 125G
 International (Water, I.M.O.)

 Proper Shipping Name: MERCURY ACETATE
 Hazard Class: 6.1
 UN/NA: UN1629 Packing Group: II
 Information reported for product/size: 125G

15. Regulatory Information

Ingredient	TSCA	EC	Japan	Australia
Mercuric Acetate (1600-27-7)	Yes	Yes	Yes	Yes

Ingredient	Korea	Canada-- DSL	NDSL	Phil.
Mercuric Acetate (1600-27-7)	Yes	Yes	No	Yes

Ingredient	-SARA 302- RQ	TPQ	-SARA 313- List	Chemical Catg.
Mercuric Acetate (1600-27-7)	500	500*	No	Mercury compou

Ingredient	CERCLA	-RCRA- 261.33	-TSCA- 8(d)
Mercuric Acetate (1600-27-7)	1	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
 Reactivity: No (Pure / Solid)

Prop 65: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

Australian Hazchem Code: 2X
 Poison Schedule: S7

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

16. Other Information

NFPA Ratings:
 Health: 3 Flammability: 0 Reactivity: 0

Label Hazard Warning:
 DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CAUSES SEVERE IRRITATION TO EYES, SKIN AND RESPIRATORY TRACT; MAY

CAUSE BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MERCURY COMPOUNDS AFFECT THE KIDNEYS AND CENTRAL NERVOUS SYSTEM. BIRTH DEFECT HAZARD. CAN CAUSE BIRTH DEFECTS.

Label Precautions:

Do not breathe dust.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Do not get in eyes, on skin, or on clothing.

Label First Aid:

If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. In all cases get medical attention immediately.

Product Use:

Laboratory Reagent.

Revision Information:

New 16 section MSDS format, all sections have been revised.

Disclaimer:

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M1430