

MATERIAL SAFETY DATA SHEET

Date Updated: 09/01/2009

Section 1 - Chemical Product and Company Identification

Product Name HEAVY ATOM Hg KIT

Product Number HR2-446

Company Hampton Research

Street Address 34 Journey

City, State, Zip, Country Aliso Viejo, CA 92656-3317 USA

Technical Phone: 949 425 1321

Emergency Phone: 949 425 1321

For CHEMTREC assistance, call: 800 424 9300

For International CHEMTREC assistance, call: 703 527 3887

Section 2 - Composition/Information on Ingredient

TUBE#	SUBSTANCE NAME				
1.	Mersalyl acid				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS DATA:
486-67-9	$C_{13}H_{17}HgNO_6$	N/A	N/A	N/A	N/A
2.	Ethyl Mercuric Phosphate				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
2235-25-8	$(C_2H_5HgO)_2HPO_2$	YES	N/A	N/A	Mouse (SCU) 76 mg/kg
3.	Mercury (II) chloride				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
7487-94-7	$HgCl_2$	YES	No	231-299-8	Rat (Dermal) 41 mg/kg
4.	Mercury (II) acetate				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
1600-27-7	$Hg(OOCCH_3)_2$	YES	YES	216-491-1	Rat (Dermal) 570 mg/kg
5.	Ethylmercurithiosalicylic acid, sodium salt				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS
54-64-8	$C_9H_9HgNaO_2S$	YES	N/A	200-210-4	OV8400000
	RTECS Data: LD50				
	Mouse (Oral), 91 mg / kg				
6.	Phenylmercury acetate				
CAS #	Formula	TCSA	SARA 313	EINECS	RTECS
62-38-4	$C_8H_8HgO_2$	N/A	N/A	N/A	OV6475000

TUBE# SUBSTANCE NAME

7. Mercury (II) potassium iodide

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS DATA:
7783-33-7	K ₂ HgI ₄	YES	YES	231-990-4	N/A

8. p-Chloromercuribenzoic acid

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS
59-85-8	ClHgC ₆ H ₄ CO ₂ H	YES	YES	N/A	OV8050000

RTECS Data: LD50
 Mouse (IPR), 25 mg / kg

9. Ethylmercury chloride

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
107-27-7	C ₂ H ₅ HgCl	NO	YES	203-478-0	Rat (Dermal) 200 mg/kg

10. Mercury (II) bromide

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
7789-47-1	HgBr ₂	YES	YES	232-169-3	Rat (Dermal), 100 mg/kg

11. Mercury (II) iodide

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
7774-29-0	HgI ₂	YES	YES	231-873-8	Rat (Dermal), 75 mg/kg

12. Mercury (II) nitrate monohydrate

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data:
7783-34-8	Hg(NO ₃) ₂ ·H ₂ O	YES	YES	233-152-3	N/A

13. Mercury (II) cyanide

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
592-04-1	Hg(CN) ₂	YES	YES	209-741-6	Mouse (Oral) 33 mg/kg

14. Mercury (II) oxide, yellow

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
21908-53-2	HgO	YES	YES	244-654-7	Rat (Dermal), 315 mg/kg

15. Tetrakis(acetoxymethyl)mercuric methane

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data:
25201-30-3	C(HgOOCCH ₃) ₄	NO	YES	N/A	N/A

(16). Methylmercury (II) chloride - DISCONTINUED from kit after lot 244612

CAS #	Formula	TCSA	SARA 313	EINECS	RTECS Data: LD50
115-09-3	CH ₃ HgCl	NO	YES	204-064-2	Mouse (IPR) 10 mg/kg

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Irritating to eyes, respiratory system, and skin.

PRIMARY ROUTES OF EXPOSURE

Ingestion, inhalation, skin, and eyes.

For additional information on toxicity and Hazard Identification, please refer to Section 11 and Section 15.

Section 4 - First Aid Measures

ORAL EXPOSURE

Call a physician immediately. If swallowed, give victim water (only if conscious).

INHALATION EXPOSURE

If inhaled, remove to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothes if necessary. Call a physician if irritation persists.

EYE EXPOSURE

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMPERATURE

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water Spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear NIOSH approved positive pressure self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Specific Hazard(s): Emits toxic fumes under fire conditions.

Unusual Fire or Explosion Hazard(s): No unusual fire or explosion hazards.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Ensure adequate ventilation.

METHODS FOR CLEANING UP

Absorb on sand, vermiculite, or other suitable non combustible absorbent and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Please refer to Section 7 for information on safe handling.

Please refer to Section 8 for information on personal protection equipment.

Please refer to Section 13 for disposal information.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Ensure good ventilation at the workplace. If possible, handle in a efficient fume hood.

STORAGE

Suitable: Keep tightly closed away from moisture in a sealed container. Prolonged exposure to the atmosphere may degrade the product.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Mechanical exhaust required. Safety shower and eye bath.

PERSONAL PROTECTIVE EQUIPMENT

Respirator: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection is desired, use multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges.

Ventilation: Material may form a fine dust. If possible, handle the material in an efficient fume hood.

Skin: Wear protective clothing and compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

Property Value at Temperature or Pressure

Molecular Weight	N/A
pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Appearance Physical State	Solid
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Concentration	N/A
Odor Threshold	N/A
Volatile %	N/A
VOC Content	N/A
Water content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity Surface Tension	N/A
Partition Coefficient	N/A
Decomposition Temperature	N/A
Flash Point	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temperature	N/A
Refractive Index	N/A
Optical Rotation	N/A
Miscellaneous Data	N/A
Solubility	N/A
SG/Density	N/A
Bulk Density	N/A

N/A = Not Available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Oxidizing agents, water/moisture.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Hydrogen chloride
Toxic metal oxide fume
Carbon monoxide and Carbon dioxide

CONDITIONS TO AVOID

Material may absorb moisture from the air.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

PRIMARY ROUTES OF EXPOSURE

Ingestion, inhalation, skin, and eyes.

ROUTE OF EXPOSURE

Skin Contact: Causes severe irritation to the skin.

Skin Absorption: Irritant to skin and mucous membranes.

Eye Contact: Causes severe irritation to the eyes.

Inhalation: Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

ADDITIONAL TOXICOLOGICAL INFORMATION

Danger through skin absorption.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

ECOLOGICAL INFORMATION

Avoid release to the environment. Toxic to aquatic organisms.
May cause long term adverse effects in the aquatic environment.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed or professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

RISK PHRASES

- 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.
- 50/53 Very toxic to aquatic organisms, may cause long-term effects in the aquatic environment.

SAFETY PHRASES

- 7 Keep container tightly closed.
- 13 Keep away from food, drink, and animal feed.
- 28 After contact with skin, wash immediately with plenty of water.
- 29 Do not empty into drains.
- 45 In case of accident or if you feel unwell, seek medical advice immediately.
- 60 This material and its container must be disposed of as hazardous waste.
- 61 Avoid release to the environment.
Refer to special instructions / Safety data sheets.

NATIONAL REGULATIONS

Use of this product is restricted to research and development only.

INFORMATION ABOUT LIMITATION OF USE

For use only by technically qualified individuals.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: Yes

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Additional Information

DISCLAIMER

For R&D use only. Not for drug, household, or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage result-

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