

**Material Safety Data Sheet**

acc. to OSHA and ANSI

Printing date 05/15/2009

Reviewed on 05/15/2009

**1 Identification of substance:****Product details:****Product name:** Phenylmercury acetate**Stock number:** 37125**Manufacturer/Supplier:**

Alfa Aesar, A Johnson Matthey Company  
 Johnson Matthey Catalog Company, Inc.  
 30 Bond Street  
 Ward Hill, MA 01835-8099  
 Emergency Phone: (978) 521-6300  
 CHEMTREC: (800) 424-9300  
 Web Site: www.alfa.com

**Information Department:** Health, Safety and Environmental Department**Emergency information:**

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at (800) 424-9300.

**2 Composition/Data on components:****Chemical characterization:****Description: (CAS#)**

Phenylmercury acetate (CAS# 62-38-4), 100%

**Identification number(s):****EINECS Number:** 200-532-5**Index number:** 080-011-00-5**3 Hazards identification****Hazard description:**

T Toxic

N Dangerous for the environment

**Information pertaining to particular dangers for man and environment**

R 25 Toxic if swallowed.

R 34 Causes burns.

R 48/24/25 Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Classification system****HMIS ratings (scale 0-4)****(Hazardous Materials Identification System)**

HEALTH	3
FIRE	1
REACTIVITY	1

Health (acute effects) = 3

Flammability = 1

Reactivity = 1

**GHS label elements****Danger**

3.1/2 - Fatal if swallowed.

**Danger**

3.9/1 - Causes damage to organs through prolonged or repeated exposure.

**Danger**

3.2/1B - Causes severe skin burns and eye damage.

**Warning**

4.1/1 - Very toxic to aquatic life with long lasting effects.

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**Prevention:**

Do not breathe dust/fume/gas/mist/vapours/spray.  
 Wash thoroughly after handling.  
 Do not eat, drink or smoke when using this product.  
 Avoid release to the environment.  
 Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 Immediately call a POISON CENTER or doctor/physician.  
 Get medical advice/attention if you feel unwell.  
 Specific treatment (see label).  
 Rinse mouth.  
 Wash contaminated clothing before reuse.  
 Collect spillage.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**4 First aid measures****General information**

Immediately remove any clothing soiled by the product.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.  
 Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
 Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing**

Do not induce vomiting; immediately call for medical help.  
 Seek immediate medical advice.

**5 Fire fighting measures****Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

Toxic metal oxide fume

Toxic metal compounds

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

**6 Accidental release measures****Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Additional information:**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

**7 Handling and storage****Handling****Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:** No special measures required.**Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:**

Do not store together with oxidizing and acidic materials.

Store away from reducing agents.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

**8 Exposure controls and personal protection****Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:**

mercury, aryl compounds, as Hg

	mg/m <sup>3</sup>
ACGIH TLV	0.1
Belgium TWA	0.1 (skin)
Finland TWA	0.05
France TWA	0.1 (skin)
Germany MAK	0.01
Hungary TWA	0.02; 0.04-STEL
Netherlands TWA	0.05
Sweden TWA	0.05
Switzerland TWA	0.01 (skin)
United Kingdom TWA	0.025
USA PEL	0.1-STEL

**Additional information:** No data**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.**Protection of hands:** Impervious gloves**Eye protection:**

Safety glasses

Tightly sealed goggles

Full face protection

**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

<b>Form:</b>	Powder
<b>Color:</b>	White
<b>Odor:</b>	Odorless

**Change in condition**

<b>Melting point/Melting range:</b>	146-147°C (295-297°F)
<b>Boiling point/Boiling range:</b>	Not determined
<b>Sublimation temperature / start:</b>	Not determined

**Flash point:** Not applicable

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<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Density at 20°C (68°F):</b>	2.4 g/cm <sup>3</sup> ((approx))
<b>Solubility in / Miscibility with Water:</b>	Slightly soluble

**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:**

Oxidizing agents

Acids

Reducing agents

**Dangerous reactions** No dangerous reactions known**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Toxic metal oxide fume

Toxic metal compounds

**11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:**

Oral	LD50	60 mg/kg (chicken) 13250 µg/kg (mouse) 71 mg/kg (qal) 41 mg/kg (rat)
Irritation of skin	severe	100 µg/24H (human)
Irritation of eyes	severe	50 µg/24H (rabbit)

**Primary irritant effect:****on the skin:**

Corrosive effect on skin and mucous membranes.

Irritant to skin and mucous membranes.

**on the eye:**

Strong corrosive effect.

Irritating effect.

**Sensitization:** No sensitizing effects known.**Other information (about experimental toxicology):**

Reproductive effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on tests with laboratory animals.

Mutagenic effects have been observed on tests with bacteria.

**Subacute to chronic toxicity:**

Organic mercury compounds may attack the central nervous system causing permanent damage.

Symptoms include loss of sensation in the hands and feet and in the areas around the mouth, diminishment of vision resulting in tunnel vision, ataxia, inflammation of the gums and mouth, memory loss, general fatigue, dysarthria and hearing loss. Severe poisoning produces blindness, coma and death. Severe poisoning in humans may occur even at doses as small as a few milligrams per kilogram of body weight. There may be a period of weeks to months before development of symptoms.

**Subacute to chronic toxicity:**

Corrosive materials are acutely destructive to the respiratory tract, eyes, skin and digestive tract. Eye contact may result in permanent damage and complete vision loss.

Inhalation may result in respiratory effects such as inflammation, edema, and chemical pneumonitis. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Ingestion may cause damage to the mouth, throat and esophagus. May cause skin burns or irritation depending on the severity of the exposure.

**Additional toxicological information:**

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.  
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

**12 Ecological information:****Ecotoxicological effects:****Remark:** Very toxic for fish**General notes:**

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Do not allow material to be released to the environment without proper governmental permits.

Very toxic for aquatic organisms

**13 Disposal considerations****Product:****Recommendation** Consult state, local or national regulations to ensure proper disposal.**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**14 Transport information****DOT regulations:**

**Hazard class:** 6.1  
**Identification number:** UN1674  
**Packing group:** II  
**Hazardous substance:** 100 lbs, 45.4 kg  
**Proper shipping name (technical name):** PHENYLMERCURIC ACETATE  
**Label:** 6.1

**Land transport ADR/RID (cross-border)**

**ADR/RID class:** 6.1 (T3) Toxic substances  
**Danger code (Kemler):** 60  
**UN-Number:** 1674  
**Packaging group:** II  
**Description of goods:** 1674 PHENYLMERCURIC ACETATE

**Maritime transport IMDG:**

**IMDG Class:** 6.1  
**UN Number:** 1674  
**Label:** 6.1  
**Packaging group:** II  
**Proper shipping name:** PHENYLMERCURIC ACETATE

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**Air transport ICAO-TI and IATA-DGR:**

<b>ICAO/IATA Class:</b>	6.1
<b>UN/ID Number:</b>	1674
<b>Label</b>	6.1
<b>Packaging group:</b>	II
<b>Proper shipping name:</b>	PHENYLMERCURIC ACETATE

**UN "Model Regulation":** UN1674, PHENYLMERCURIC ACETATE, 6.1, II**Environmental hazards:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID**15 Regulations****Product related hazard informations:****Hazard symbols:**

T Toxic  
N Dangerous for the environment

**Risk phrases:**

25 Toxic if swallowed.  
34 Causes burns.  
48/24/25 Toxic: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed.  
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

**Safety phrases:**

23 Do not breathe gas/fumes/vapour/spray.  
24/25 Avoid contact with skin and eyes.  
37 Wear suitable gloves.  
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

**Special labeling of certain preparations:**

This product contains a chemical known to the state of California to cause cancer or reproductive toxicity.

**National regulations**

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

**Information about limitation of use:**

For use only by technically qualified individuals.  
This product contains mercury and is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

**16 Other information:**

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

**Department issuing MSDS:** Health, Safety and Environmental Department.

**Contact:** Zachariah Holt

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code For Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
HMIS: Hazardous Materials Identification System (USA)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent