



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 12/16/2008  
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Version 1.70

### Section 1 - Product and Company Information

<b>Product Name</b>	Potassium arsenate monobasic
<b>Product Number</b>	A6631
<b>Brand</b>	Sigma Chemical
<b>Company</b>	Sigma-Aldrich
<b>Street Address</b>	3050 Spruce Street
<b>City, State, Zip, Country</b>	SAINT LOUIS, MO 63103 US
<b>Technical Phone:</b>	800-325-5832
<b>Fax:</b>	800-325-5052
<b>Emergency Phone:</b>	314-776-6555

### Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>OSHA</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
ARSENIC ACID POTASSIUM	7784-41-0	Yes	Yes	232-065-8	033-005-00-1

<b>Formula</b>	KH <sub>2</sub> AsO <sub>4</sub>
<b>Synonyms</b>	Macquer's salt, Monopotassium arsenate, Monopotassium dihydrogen arsenate, Potassium acid arsenate, Potassium arsenate, monobasic, Potassium dihydrogen arsenate, Potassium hydrogen arsenate

### Section 3 - Hazards Identification

#### Emergency Overview

Toxic. Dangerous for the environment.  
May cause cancer. Toxic by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
Danger: Contains inorganic arsenic: Cancer Hazard. Harmful if inhaled or swallowed. Use only with adequate ventilation or respiratory protection. Target organ(s): Skin, Liver, Kidneys. Calif. Prop. 65 carcinogen.

**HMIS Rating**  
Health: 2\*      Flammability: 0      Reactivity: 0

**NFPA Rating**  
Health: 2      Flammability: 0      Reactivity: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

#### Inhalation Exposure

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

#### Dermal Exposure

In case of contact, immediately wash skin with soap and copious amounts of water.

#### Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Section 5 - Fire Fighting Measures

**Autoignition Temp:** N/A

#### Extinguishing Media

##### Suitable

Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.

#### Firefighting

##### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

##### Specific Hazard(s)

Emits toxic fumes under fire conditions.

### Section 6 - Accidental Release Measures

#### Procedure to be Followed in Case of Leak or Spill

Evacuate area.

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable coveralls and discard them after use.

#### Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed.

### Section 8 - Exposure Controls / PPE

#### Engineering Controls

Use only in a chemical fume hood. Safety shower and eye bath.

#### Personal Protective Equipment

##### Respiratory

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a fullface particulate respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use full-face supplied air respirator.

##### Hand

Compatible chemical-resistant gloves.

##### Eye

Chemical safety goggles.

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#### General Hygiene Measures

Wash contaminated clothing before reuse. Wash thoroughly after handling.

#### Exposure Limits, RTECS

Country	Source	Type	Value
USA	ACGIH	TWA	0.01 MG(AS)/M3
USA	MSHA Standard-air	TWA	0.5 MG(AS)/M3
New Zealand	OEL		
<b>Remarks</b> check ACGIH TLV			
USA	NIOSH	Ceiling concentration	0.002 MG(AS)/M3/15M

### Section 9 - Physical/Chemical Properties

<b>Appearance</b>	
Physical State	Color
Solid	White
<b>Molecular Weight</b>	180.04 AMU
<b>pH</b>	8.5 - 9.0
<b>BP/BP Range</b>	N/A
<b>MP/MP Range</b>	277 - 283 °C
<b>Freezing Point</b>	N/A
<b>Vapor Pressure</b>	N/A
<b>Vapor Density</b>	N/A
<b>Saturated Vapor Conc.</b>	N/A
<b>SG/Density</b>	1.88 g/cm <sup>3</sup>
<b>Bulk Density</b>	N/A
<b>Odor Threshold</b>	N/A
<b>Volatile%</b>	N/A
<b>VOC Content</b>	N/A
<b>Water Content</b>	N/A
<b>Solvent Content</b>	N/A
<b>Evaporation Rate</b>	N/A
<b>Viscosity</b>	N/A
<b>Partition Coefficient</b>	N/A
<b>Decomposition Temp.</b>	N/A
<b>Flash Point °F</b>	N/A
<b>Flash Point °C</b>	N/A
<b>Explosion Limits</b>	N/A
<b>Flammability</b>	N/A
<b>Autoignition Temp</b>	N/A
<b>Solubility</b>	N/A

N/A = not available

### Section 10 - Stability and Reactivity

#### Stability

Stable

Stable

#### Conditions of Instability

Absorbs carbon dioxide from air.

#### Materials to Avoid

Strong oxidizing agents. Strong acids

#### Hazardous Decomposition Products

#### Hazardous Decomposition Products

Arsenic oxides.

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#### Hazardous Polymerization

Will not occur.

### Section 11 - Toxicological Information

#### Route of Exposure

##### Skin Contact

Causes skin irritation.

##### Skin Absorption

May be harmful if absorbed through the skin.

##### Eye Contact

Causes eye irritation.

##### Inhalation

Toxic if inhaled. Material is irritating to mucous membranes and upper respiratory tract.

##### Ingestion

Toxic if swallowed.

#### Sensitization

##### Sensitization

Causes dermatitis.

#### Target Organ(s) or System(s)

Skin. Liver. Kidneys. G.I. System. Bladder. Lungs.

#### Conditions Aggravated by Exposure

Exposure to arsenic compounds can cause burning and dryness of the oral and nasal cavities, muscle spasms, irritation of the gastrointestinal tract, nausea, vomiting and diarrhea which can progress to shock and death.

**RTECS Number:** CG1100000

#### Chronic Exposure- Carcinogen

Result: This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

#### OSHA Carcinogen List

##### Rating

cancer hazard

#### ACGIH Carcinogen List

##### Rating

A1

### Section 12 - Ecological Information

No data available.

### Section 13 - Disposal Considerations

#### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Observe all federal, state, and local environmental regulations.

(DN) Requires special label: "Contains a substance which is regulated by Danish work environmental law due to the risk of carcinogenic properties."

### Section 14 - Transport Information

#### DOT

**Proper Shipping Name:** Potassium arsenate

**UN#:** 1677

**Class:** 6.1

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**Packing Group:** Packing Group II  
**Hazard Label:** Toxic substances.  
**PIH:** Not PIH

**IATA**

**Proper Shipping Name:** Potassium arsenate  
**IATA UN Number:** 1677  
**Hazard Class:** 6.1  
**Packing Group:** II

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**Section 15 - Regulatory Information**

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**EU Directives Classification**

**Symbol of Danger:** T N

**Indication of Danger**

Toxic. Dangerous for the environment.

**Risk Statements** R: 45 23/25 50/53

May cause cancer. Also toxic by inhalation and if swallowed. Very toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment.

**Safety Statements** S: 53 45 61

Restricted to professional users. Attention- Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid release to the environment. Refer to special instructions/safety data sheets.

**US Classification and Label Text**

**Indication of Danger**

Toxic. Dangerous for the environment.

**Risk Statements**

May cause cancer. Toxic by inhalation and if swallowed. Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Statements**

Restricted to professional users. Attention- Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

**US Statements**

Danger: Contains inorganic arsenic. Cancer Hazard. Harmful if inhaled or swallowed. Use only with adequate ventilation or respiratory protection. Target organ(s): Skin. Liver. Kidneys. Calif. Prop. 65 carcinogen.

**United States Regulatory Information**

**SARA Listed:** Yes

**Demimis:** 0.1 %

**Notes:** This product is subject to SARA section 313 reporting requirements- arsenic compounds.

**OSHA Remarks**

OSHA-regulated carcinogen. See CFR title 29 part 1910.1018

**TSCA Inventory Item:** Yes

**United States - State Regulatory Information**

**California Prop - 65**

This product is or contains chemical(s) known to the state of California to cause cancer.

**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:** No

**NDSL:** Yes

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**Section 16 - Other Information**

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**Disclaimer**

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

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**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 the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright©2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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