Material Safety Data Sheet

Section 1 - Product and Company Information

Product Name: Potassium arsenate monobasic
Product Number: A6631
Brand: Sigma Chemical
Company: Sigma-Aldrich
Street Address: 3030 Spruce Street
City, State, Zip, Country: SAINT LOUIS, MO 63103-US
Technical Phone: 800-325-5032
Emergency Phone: 314-776-6555
Fax: 800-325-5032

Section 2 - Composition/Information on Ingredient

Substance Name: ARSENIC ACID POTASSIUM
CAS #: 7784-41-0
OSHA: Yes
GHS 319: Yes
EC no: 232-005-6
Annex I Number: 033-005-00-1
Formula: K2(H2AsO4)
Synonyms: Monopotassium arsenate, Monopotassium dithionate arsenate, Potassium acid arsenate, Potassium arsenate, monobasic, Potassium dithionate 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

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: Nonflammable. Use extinguishing media appropriate to surrounding fire conditions.

Firefighting Equipment:
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:
Excavate area.

Procedure(s) of Personal Precaution(s):
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves. Wear disposable overalls and discard 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). Wear a half face respirator or type P3 respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator.
Hand:
Compatible chemical-resistant gloves.
Eye:
Chemical safety goggles.
General Hygiene Measures
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Exposure Limits, RTECS
Country | Source | Type | Value
--- | --- | --- | ---
USA | ACGIH | TWA | 0.1 MG/AS/M3
USA | MSHA Standard air | TWA | 0.8 MG/AS/M3
New Zealand | | OEL | |
Remarks | check ACGIH TLV | | |
USA | NIOSH | Ceiling concentration | 0.002 MG/AS/M3/15M

Section 9 - Physical/Chemical Properties

Appearance
Physical State | Solid
Color | White

Molecular Weight | 180.04 AMU

pH | 8.5 - 9.0
BP/EP Range | NA
Flash Point | 217 - 285 °C
Vapor Pressure | NA
Vapor Density | NA
Saturated Vapor Conc. | NA
SG/Density | 1.38 g/cm3
Bulk Density | NA
Odor Threshold | NA
Vapor Toxicity | NA
VOC Content | NA
Water Content | NA
Solvent Content | NA
Evaporation Rate | NA
Viscosity | NA
Partition Coefficient | NA
Decomposition Temp. | NA
Flash Point | NA
Flash Point °C | NA
Explosion Limits | NA
Flammability | NA
Autoignition Temp | NA
Solubility | NA
N/A = not available

Section 10 - Stability and Reactivity

Stability
Stable

Conditions of Instability
Absorbs carbon dioxide from air.
Stable

Materials to Avoid
Strong oxidizing agents. Strong acids

Hazardous Decomposition Products
Arsenic oxides.

Hazardous Polymerization
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
Tosil 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: GS1100000

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.

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

Section 14 - Transport Information

DOT
Proper Shipping Name: Potassium arsenate
UN#: 1677
Class: 6.1

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Section 15 - Regulatory Information

EU Directive Classification
Symbol of Danger: T N
Indication of Danger
Tox. Dangerous for the environment.

Risk Statements
R: 43 23/25 50/63
May cause cancer. Also toxic by inhalation and if swallowed. Very toxic to aquatic organisms, may cause long-term 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
Tox. 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.

United States Regulatory Information
SARA Listed: Yes
Denminimis: 0.1 %
Notes: This product is subject to ESA 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

Section 16 - Other Information

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. Sigma-Aldrich Co., 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.