Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Common Name/ Trade Name: Sodium arsenate heptahydrate

Catalog Number(s): YY1400, S1130

CAS#: 10048-95-0

RTECS: CG1225000

TSCA: TSCA 8(b) inventory: No products were found. Exempt from TSCA 8(b) Inventory listing since it is a hydrate. However the anhydrous form (CAS no. 7778-43-0) is listed on the TSCA 8(b) Inventory.

Manufacturer: SPECTRUM CHEMICAL MFG. CORP.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Supplier: SPECTRUM CHEMICAL MFG. CORP.
14422 S. SAN PEDRO STREET
GARDENA, CA 90248

Commercial Name(s): Disodium hydrogen arsenate

Synonym: Dibasic sodium arsenate heptahydrate
Disodium arsenate, heptahydrate
Sodium acid arsenate, heptahydrate
Sodium arsenate heptahydrate
Sodium arsenate, dibasic, heptahydrate

Chemical Name: Arsenic acid, disodium salt, heptahydrate

Chemical Family: Not available.

Chemical Formula: Na2HAsO4.7H2O

Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium arsenate heptahydrate</td>
<td>10048-95-0</td>
<td></td>
<td>0.002</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients: Sodium arsenate heptahydrate
LD50: Not available.
LC50: Not available.

IN CASE OF EMERGENCY
CHEMTREC (24hr) 800-424-9300

CALL (310) 516-8000

Continued on Next Page
### Sodium arsenate heptahydrate

#### Section 3. Hazards Identification

| Potential Acute Health Effects | Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Severe over-exposure can result in death. |
| Potential Chronic Health Effects | **CARCINOGENIC EFFECTS:** Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC.  
**MUTAGENIC EFFECTS:** Not available.  
**TERATOGENIC EFFECTS:** Not available.  
**DEVELOPMENTAL TOXICITY:** Not available.  
The substance may be toxic to kidneys, lungs, liver, lymphatic system, skin. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. |

#### Section 4. First Aid Measures

| Eye Contact | Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention. |
| Skin Contact | In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. |
| Serious Skin Contact | Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention. |
| Inhalation | If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately. |
| Serious Inhalation | Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention. |
| Ingestion | If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. |
| Serious Ingestion | Not available. |

#### Section 5. Fire and Explosion Data

| Flammability of the Product | Non-flammable. |
| Auto-Ignition Temperature | Not applicable. |
| Flash Points | Not applicable. |
| Flammable Limits | Not applicable. |
| Products of Combustion | Not available. |
| Fire Hazards in Presence of Various Substances | Not applicable. |
| Explosion Hazards in Presence of Various Substances | Risks of explosion of the product in presence of mechanical impact: Not available.  
Risks of explosion of the product in presence of static discharge: Not available. |
| Fire Fighting Media and Instructions | Not applicable. |
| Special Remarks on Fire Hazards | When heated to decomposition it emits toxic fumes of Arsenic |
| Special Remarks on Explosion Hazards | Not available. |

*Continued on Next Page*
Section 6. Accidental Release Measures

Small Spill
Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill
Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions
Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, acids.

Storage
Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits
TWA: 0.01 (mg(As)/m³) from ACGIH (TLV) [United States]
CEIL: 0.002 (mg(As)/m³) from NIOSH
TWA: 0.01 (mg(As)/m³) [Canada]
TWA: 0.1 (mg(As)/m³) [United Kingdom (UK)]
Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance
Solid. (Crystals solid.)

Odor
Odorless.

Taste
Not available.

Color
Not available.

Molecular Weight
312.01 g/mole

Boiling Point
Decomposes.

Melting Point
Decomposition temperature: 150°C (302°F) - 180 deg. C. Melting point is 57 deg. C when rapidly heated.

Specific Gravity
1.87 (Water = 1)

Water/Oil Dist. Coeff.
Not available.

Ionicity (in Water)
Not available.

Dispersion Properties
See solubility in water.

Continued on Next Page
**Sodium arsenate heptahydrate**

**Solubility**
- Easily soluble in hot water.
- Soluble in cold water.
- Solubility in Water: 5.46 g/100 cc water @ 0 deg. C; 100 g/100 cc water @ 100 deg. C.
- Soluble in Glycerol.

**Section 10. Stability and Reactivity Data**

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Incomplantile materials, air.</td>
</tr>
<tr>
<td>Incomplantility with various substances</td>
<td>Reactive with oxidizing agents, acids.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Non-corrosive in presence of glass.</td>
</tr>
</tbody>
</table>

**Special Remarks on Reactivity**
- Efflorescent in warm air.
- Looses 5 H2O at 50 deg. C.
- Becomes anhydrous at 100 deg. C.
- At 150 deg. C or over, it is converted to pyoarsenate.

**Special Remarks on Corrosivity**
- Not available.

**Polymerization**
- Will not occur.

**Section 11. Toxicological Information**

**Routes of Entry**
- Inhalation. Ingestion.

**Toxicity to Animals**
- LD50: Not available.
- LC50: Not available.

**Chronic Effects on Humans**
- CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC.
- May cause damage to the following organs: kidneys, lungs, liver, lymphatic system, skin.

**Other Toxic Effects on Humans**
- Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals**
- Not available.

**Special Remarks on Chronic Effects on Humans**
- May affect genetic material (mutagenic).
- Can cause adverse reproductive effects and birth defects (teratogenic).

**Special Remarks on other Toxic Effects on Humans**
- Acute Potential Health Effects:
  - Skin: Causes skin irritation.
  - Eyes: Causes eye irritation.

  Inhalation: Causes respiratory tract irritation, chest pain, shortness of breath and symptoms similar to that of ingestion.

  Ingestion: Harmful if swallowed. May cause burning lips, throat constriction, dysphagia, abdominal pain, hemorrhagic gastritis, gastroenteritis, severe nausea, vomiting, diarrhea, muscle cramps, thirst, fluid-electrolyted disturbances, and a garlic-like odor of the breath and feces. May also affect behavior/central nervous system/peripheral nervous system (headache, lethargy, somnolence, ataxia, muscular weakness, mental confusion, hallucinations, emotional lability, memory loss, mental confusion, delirium, seizures, stupor, incoordination, convulsions, coma, and possible death), cardiovascular system (dysrhythmias, hypotension, irregular pulse, cardiomyopathy), liver (hepatitis), kidneys (renal failure), blood (anemia, leukopenia, thrombocytopenia) and cause peripheral neuropathy, bone marrow suppression, skin eruptions.

  Chronic Potential Health Effects:

  Ingestion/Inhalation: Prolonged or repeated ingestion or inhalation may cause anorexia, affect gastrointestinal system (see acute exposure), behavior/central nervous system (see acute exposure), liver (jaundice), respiration. May also affect the peripheral nervous system with symptoms including numbness, burning, and tingling of the hands and feet, pain, paresthesias, tenderness, muscle fasciculations, muscular weakness, limb tenderness, difficulty walking, peripheral sensory neuropathy of the hands and feet. It may also cause hair, skin and nail changes including alopecia.

  Prolonged or repeated inhalation may cause hoarse voice, bronchitis, throat irritation, conjunctivitis and lacrimation, pigment spots in the corneal and conjunctival epithelium, perforation of the nasal septum.

  Prolonged or repeated ingestion may also cause Hypoglycemia and may affect the urinary system (kidneys),
### Section 12. Ecological Information

**Ecotoxicity**
Not available.

**BOD5 and COD**
Not available.

**Products of Biodegradation**
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation**
The products of degradation are less toxic than the product itself.

**Special Remarks on the Products of Biodegradation**
Not available.

### Section 13. Disposal Considerations

**Waste Disposal**
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14. Transport Information

**DOT Classification**
CLASS 6.1: Poisonous material.

**Identification**
UNNA: 1685 : Sodium arsenate  PG: II

**Special Provisions for Transport**
Not available.

**DOT (Pictograms)**
![POISON](image)

### Section 15. Other Regulatory Information and Pictograms

**Federal and State Regulations**
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds; listed as Arsenic, inorganic oxides)

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Sodium arsenate heptahydrate (listed as Arsenic, inorganic oxides)

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

Connecticut hazardous material survey.: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

Pennsylvania RTK: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

Minnesota: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

Michigan critical material: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

New Jersey: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

New Jersey spill list: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

California Director's List of Hazardous Substances: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

SARA 313 toxic chemical notification and release reporting: Sodium arsenate heptahydrate (Listed as Arsenic, inorganic compounds; De Minimus concentration: 0.1%)

**California Proposition 65 Warnings**
California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)

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**Sodium arsenate heptahydrate**

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Sodium arsenate heptahydrate (listed as Arsenic, inorganic oxides).

### Other Regulations

- **EINECS**: This product is not on the European Inventory of Existing Commercial Chemical Substances.
- **Canada**: Not listed on Canadian Domestic Substance List (DSL) or Canadian Non-Domestic Substance List (NDSL).
- **China**: Listed on National Inventory.
- **Japan**: Listed on National Inventory (ENCS).
- **Korea**: Not listed on National Inventory (KECI).
- **Philippines**: Listed on National Inventory (PICCS).
- **Australia**: Listed on AICS.

### Other Classifications

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHMIS (Canada)</strong></td>
<td><strong>CLASS D-1B</strong>: Material causing immediate and serious toxic effects (TOXIC).</td>
</tr>
<tr>
<td></td>
<td><strong>CLASS D-2B</strong>: Material causing other toxic effects (TOXIC).</td>
</tr>
<tr>
<td><strong>DSCL (EEC)</strong></td>
<td>R23/25: Toxic by inhalation and if swallowed.</td>
</tr>
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<td></td>
<td>R45: May cause cancer.</td>
</tr>
<tr>
<td></td>
<td>R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</td>
</tr>
<tr>
<td><strong>S20/21</strong>: When using do not eat, drink or smoke.</td>
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</tr>
<tr>
<td><strong>S28</strong>: After contact with skin, wash immediately with plenty of water.</td>
<td></td>
</tr>
<tr>
<td><strong>S45</strong>: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).</td>
<td></td>
</tr>
<tr>
<td><strong>S60</strong>: This material and its container must be disposed of as hazardous waste.</td>
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</tr>
<tr>
<td><strong>S61</strong>: Avoid release to the environment. Refer to special instructions/Safety data sheets.</td>
<td></td>
</tr>
</tbody>
</table>

### HMIS (U.S.A.)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>2</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

### National Fire Protection Association (U.S.A.)

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Health</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

### Protective Equipment

- **Gloves.**
- **Lab coat.**

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*Continued on Next Page*
Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.

Splash goggles.

Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>S3590</th>
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</thead>
<tbody>
<tr>
<td>References</td>
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</tr>
<tr>
<td>Other Special Considerations</td>
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</tbody>
</table>


CALL (310) 516-8000

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.