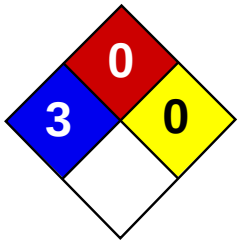

Material Safety Data Sheet
Sodium Arsenate Heptahydrate MSDS

Section 1: Chemical Product and Company Identification

Product Name: Sodium Arsenate Heptahydrate

Catalog Codes: SLS4546

CAS#: 10048-95-0

RTECS: CG3675000

TSCA: TSCA 8(b) inventory: Sodium arsenate

CI#: Not available.

Synonym: ; Arsenic acid, disodium salt, heptahydrate; sodium acid arsenate heptahydrate; Disodium arsenate, heptahydrate; Sodium arsenate, dibasic, 7-hydrate

Chemical Name: SODIUM ARSENATE HEPTAHYDRATE

Chemical Formula: Na2HAsO4 7H2O

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium Arsenate Heptahydrate	10048-95-0	100

Toxicological Data on Ingredients: Arsenic Acid, Disodium Salt (7778-43-0): No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a mutagen.

Section 3: Hazards Identification

Potential Acute Health Effects:
Inhalation: Arsenic may cause inflammation of the mucous membranes with cough and foamy sputum, restlessness, dyspnea, cyanosis, and rales. Symptoms like those from ingestion exposure may follow. May cause pulmonary edema. Ingestion: Arsenic is highly toxic! May cause burning in esophagus, vomiting, and bloody diarrhea. Symptoms of cold and clammy skin, low blood pressure, weakness, headache, cramps, convulsions, and coma may follow. May cause damage to liver and kidneys. A suspected fetal toxin. Death may occur from circulatory failure. Estimated lethal dose 120 milligrams. Skin Contact: May cause irritation, symptoms including redness, itching, and pain. Eye Contact: May cause irritation with itching, burning, watering of eyes; may cause conjunctiva damage.

Potential Chronic Health Effects: Arsenic on repeated or prolonged skin contact may cause bronzing of the skin, edema, dermatitis, and lesions. Repeated or prolonged inhalation of dust may cause damage to the nasal septum. Chronic exposure from inhalation or ingestion may cause hair and weight loss, a garlic odor to the breath and perspiration, excessive salivation

and perspiration, central nervous system damage, hepatitis, gastrointestinal disturbances, cardiovascular damage, and kidney and liver damage. Arsenic compounds are known human carcinogens and may be teratogenic based on effects in laboratory animals.

Section 4: First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Thoroughly clean shoes before reuse. Contaminated work clothes should be laundered by individuals who have been informed of the hazards of exposure to this substance.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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: Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Serious Ingestion: Not available.

Note to Physician: If emesis if unsuccessful after two doses of Ipecac, consider gastric lavage. Monitor urine arsenic level. Alkalization of urine may help prevent disposition of red cell breakdown products in renal tubular cells. If acute exposure is significant, maintain high urine output and monitor volume status, preferably with central venous pressure line. Abdominal X-rays should be done routinely for all ingestions. Chelation therapy with BAL, followed by n-penicillamine is recommended, but specific dosing guidelines are not clearly established.

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: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

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:
Keep locked up.. 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 acids.

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

Section 8: Exposure Controls/Personal Protection

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Protection: Splash goggles and/or full face shield. Lab coat. Dust respirator. Be sure to use an approved/certified NIOSH respirator or equivalent. Impervious 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:
-OSHA Permissible Exposure Limit (PEL): 10 ug(As)/m3 ppm (TWA) -ACGIH Threshold Limit Value (TLV): 0.01 mg(As)/m3 (TWA), listed as A1, confirmed human carcinogen. Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Solid. (Powdered solid. Crystalline powder.)

Odor: Odorless.

Taste: Saline.

Molecular Weight: 312.01 g/mole

Color: Colorless crystals.

pH (1% soln/water): Aqueous soln. is alkaline to litmus.

Boiling Point: 150C (302F) Decomposes.

Melting Point: 57C (135F) If heated rapidly, becomes anhydrous at 100C (212F).

Critical Temperature: Not available.

Specific Gravity: 1.87 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: 0% (v/v). 0% (w/w).

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: 61g/100ml water @ 15C.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, dust generation

Incompatibility with various substances: Acids; iron, aluminum, and zinc in the presence of water. Strong reducing agents.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Emits toxic fumes of arsenic when heated to decomposition.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.

Toxicity to Animals: No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a mutagen.

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. Causes damage to the following organs: blood, kidneys, heart, brain, peripheral nervous system, gastrointestinal tract, skin, bone marrow. May cause damage to the following organs: liver.

Other Toxic Effects on Humans:
Very hazardous in case of skin contact (permeator), of ingestion, of inhalation. Hazardous in case of skin contact (irritant).

Special Remarks on Toxicity to Animals: No LD50/LC50 information found relating to normal routes of occupational exposure. Investigated as a mutagen.

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects and birth defects (teratogenic). May affect genetic material (mutagenic). Human: passes through the placenta. May cause cancer

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: Causes skin irritation/erythema. May cause skin lesions or ulcerations of varied character, papules, multiple warts, and gross pigmentation with hyperkeritinization of exposed skin. It can be absorbed through the skin. It may be fatal if absorbed through the skin. Eyes: Causes eye irritation. May cause conjunctivitis, photophobia, corneal injury, dimness of vision, diplopia, lacrimation Inhalation: Causes upper respiratory tract irritation with coughing, a sensation of burning, dryness, and constriction of oral and nasal cavities Ingestion: Causes gastrointestinal tract irritation with nausea, vomiting, abdominal pain, dysphagia, profuse watery (and sometimes bloody) diarrhea, hypermotility, garlic odor of breath, metallic or garlic taste, dehydration, intense thirst, and fluid-electrolyte disturbances. Hypovolemia from "capillary leakage", cardiac arrhythmias, hypotension, tachycardia may also occur , but they may be secondary to electrolyte imbalances. Mee's lines, transverse white lines in the nails may also be seen after acute exposure. Peripheral neuropathy

of both the sensory and motor type can appear and symptoms may include severe muscle weakness, decreased sensation to touch, pinprick and temperature. Acute poisoning from arsenic or arsenic compounds may also affect the brain and cause permanent encephalopathy. Acute poisoning may also affect behavior (excitment, change in motor activity), blood (hemolysis, pancytopenia, anemia), and kidneys (anuria, hematuria, proteinuria acute renal tubular necrosis), and liver (heptocelluar damage). Acute respiratory failure (apnea) from severe weakness of respiratory muscles, pulmonary edema from capillary leakage, respiratory distress syndrome may also occur with severe poisoning from arsenic or arsenic compounds Chronic Potential Health Effects:

Section 12: Ecological Information

Ecotoxicity: No information found.

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: : Sodium arsenate UNNA: 1685 PG: II

Special Provisions for Transport: Not Available.

Section 15: Other Regulatory Information

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 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 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 Connecticut hazardous material survey.: Sodium arsenate Illinois chemical safety act: Sodium arsenate New York release reporting list: Sodium arsenate Pennsylvania RTK: Sodium arsenate Massachusetts RTK: Sodium arsenite Massachusetts spill list: Sodium arsenite New Jersey: Sodium arsenite New Jersey spill list: Sodium arsenite Louisiana RTK reporting list: Sodium arsenite

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS D-2A: Material causing other toxic effects (VERY TOXIC).

DSCL (EEC):
R23/25- Toxic by inhalation and if swallowed. R45- May cause cancer. R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S20/21- When using do not eat, drink or smoke. S28- After contact with skin, wash immediately with plenty of water. S36/37/39- Wear suitable protective clothing, gloves and eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60- This material and its container must be disposed of as hazardous waste. S61- Avoid release to the environment. Refer to special instructions/Safety data sheets.

HMIS (U.S.A.):

Health Hazard: 4

Fire Hazard: 0

Reactivity: 1

Personal Protection: E

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

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Lab coat. 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

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 06:29 PM

Last Updated: 05/21/2013 12:00 PM