



Material Safety Data Sheet

NFPA 	HMIS <table border="1" style="margin: auto;"> <tr><td style="background-color: #00FFFF;">Health Hazard</td><td style="text-align: center;">2</td></tr> <tr><td style="background-color: #FFCCCC;">Fire Hazard</td><td style="text-align: center;">0</td></tr> <tr><td style="background-color: #FFFF00;">Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Health Hazard	2	Fire Hazard	0	Reactivity	0	Personal Protective Equipment  See Section 15.
Health Hazard	2							
Fire Hazard	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Sodium arsenate heptahydrate	
	Catalog Number(s).	YY1400, S1130
	CAS#	10048-95-0
Manufacturer	SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
	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.
Commercial Name(s)	Disodium hydrogen arsenate	
	CI#	Not available.
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	Na ₂ HAsO ₄ ·7H ₂ O	
Supplier	SPECTRUM CHEMICAL MFG. CORP. 14422 S. SAN PEDRO STREET GARDENA, CA 90248	
<u>IN CASE OF EMERGENCY</u> <u>CHEMTREC (24hr) 800-424-9300</u> CALL (310) 516-8000		

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Sodium arsenate heptahydrate	10048-95-0			0.002	100
Toxicological Data on Ingredients					
Sodium arsenate heptahydrate LD50: Not available. LC50: Not available.					

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.

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)/m ³) from ACGIH (TLV) [United States] CEIL: 0.002 (mg(As)/m ³) from NIOSH TWA: 0.01 (mg(As)/m ³) [Canada] TWA: 0.1 (mg(As)/m ³) [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.
Molecular Weight	312.01 g/mole	Taste	Not available.
pH (1% soln/water)	Not available.	Color	Not available.
Boiling Point	Decomposes.		
Melting Point	Decomposition temperature: 150°C (302°F) - 180 deg. C . Melting point is 57 deg. C when rapidly heated.		
Critical Temperature	Not available.		
Specific Gravity	1.87 (Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water.		

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.
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Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials, air.
Incompatibility with various substances	Reactive with oxidizing agents, acids.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Efflorescent in warm air. Looses 5 H ₂ O 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-electrolyte 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),

Continued on Next Page

blood (changes in serum composition; also acute exposure).
 Skin: Prolonged or repeated skin contact may cause hyperpigmentation and eczematoid and allergic dermatitis, skin lesions (starting as erythematous, pruritic dermatitis, followed by freckled hyperpigmentation, melanoasis). The skin lesions may sometimes be pustular, ulcerative, and gangrenous.


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.
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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)	

Section 15. Other Regulatory Information and Pictograms

Federal and State Regulations	<p>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)</p> <p>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)</p> <p>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)</p> <p>Connecticut hazardous material survey.: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>Pennsylvania RTK: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>Minnesota: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>Michigan critical material: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>New Jersey: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>New Jersey spill list: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>California Director's List of Hazardous Substances: Sodium arsenate heptahydrate (listed as Arsenic, inorganic compounds)</p> <p>SARA 313 toxic chemical notification and release reporting: Sodium arsenate heptahydrate (Listed as Arsenic, inorganic compounds; De Minimus concentration: 0.1%)</p>
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)

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

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).
 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

WHMIS (Canada)	CLASS D-1B: Material causing immediate and serious toxic effects (TOXIC). CLASS D-2B: Material causing other toxic effects (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. 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	2
Fire Hazard	0
Reactivity	0
Personal Protection	E

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

Health  Flammability 
 Reactivity 
 Specific hazard 

WHMIS (Canada) (Pictograms)



DSCL (Europe) (Pictograms)



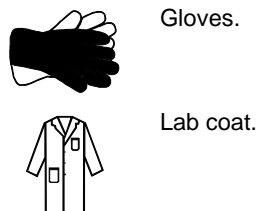
TDG (Canada) (Pictograms)



ADR (Europe) (Pictograms)



Protective Equipment





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

MSDS Code S3590

References Not available.

Other Special Considerations Not available.

Validated by Sonia Owen on 11/1/2010.

Verified by Sonia Owen.

Printed 11/1/2010.

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.