

# SAFETY DATA SHEET

Date Printed: 05/10/2024

Date Revised: 01/15/2022

## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Sodium Hydrogen Arsenate Heptahydrate

**Product Code:** NA-HASO-05-C.7HYD

**CAS Number:** 10048-95-0

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Carcinogenicity (Category 1B), H350

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H301 + H331 Toxic if swallowed or if inhaled

H350 May cause cancer.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust/ fume/ gas/ mist/ Vapors/ spray.  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P281 Use personal protective equipment as required.  
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P308 + P313 IF exposed or concerned: Get medical advice/ attention.  
P321 Specific treatment (see supplemental first aid instructions on this label).  
P330 Rinse mouth.  
P391 Collect spillage.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant.  
2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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## **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

### **3.1 Substances**

Synonyms : Sodium hydrogenarsenate heptahydrate

Disodium hydrogen arsenate heptahydrate

Formula :  $\text{HAsNa}_2\text{O}_4 \cdot 7\text{H}_2\text{O}$

Molecular weight : 312.01 g/mol

CAS-No. : 10048-95-0

Index-No. : 033-005-00-1

Hazardous components

Component Classification Concentration

Sodium arsenate dibasic heptahydrate

Acute Tox. 3; Carc. 1B;

Aquatic Acute 1; Aquatic

Chronic 1; H301 + H331,

H350, H410

<= 100 %

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## **SECTION 4. FIRST AID MEASURES**

### **4.1 Description of first aid measures**

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Sodium oxides, Arsenic oxides

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

No data available

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing Vapors, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

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## **SECTION 7. HANDLING AND STORAGE**

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1 Control parameters**

Components with workplace control parameters

Component CAS-No. Value Control

parameters

Basis

Sodium arsenate

dibasic heptahydrate

10048-95-0 TWA 0.010000

mg/m<sup>3</sup>

USA. Occupational Exposure Limits

(OSHA) - Table Z-1 Limits for Air

Contaminants

Remarks Substance listed; for more information see OSHA document

1910.1018

TWA 0.010000

mg/m<sup>3</sup>

USA. ACGIH Threshold Limit Values

(TLV)

Lung cancer

Substances for which there is a Biological Exposure Index or Indices

(see BEI® section)

Confirmed human carcinogen

varies

PEL 0.010000

mg/m<sup>3</sup>

OSHA Specifically Regulated

Chemicals/Carcinogens

1910.1018

This section applies to all occupational exposures to inorganic arsenic except that this section does not apply to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood.

OSHA specifically regulated carcinogen

C 0.002000

mg/m<sup>3</sup>

USA. NIOSH Recommended

Exposure Limits

Potential Occupational Carcinogen

OSHA considers 'Inorganic Arsenic' to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.

See Appendix A

15 minute ceiling value

Substance listed; for more information see OSHA document

1910.1018

TWA 0.01 mg/m<sup>3</sup> USA. ACGIH Threshold Limit Values

(TLV)

Lung cancer

Substances for which there is a Biological Exposure Index or Indices

(see BEI® section)

Confirmed human carcinogen  
varies

PEL 0.01 mg/m<sup>3</sup> OSHA Specifically Regulated  
Chemicals/Carcinogens  
1910.1018

This section applies to all occupational exposures to inorganic arsenic except that this section does not apply to employee exposures in agriculture or resulting from pesticide application, the treatment of wood with preservatives or the utilization of arsenically preserved wood.

OSHA specifically regulated carcinogen

C 0.002 mg/m<sup>3</sup> USA. NIOSH Recommended

Exposure Limits

Potential Occupational Carcinogen

OSHA considers 'Inorganic Arsenic' to mean copper acetoarsenite & all inorganic compounds containing arsenic except ARSINE.

See Appendix A

15 minute ceiling value

Biological occupational exposure limits

Component CAS-No. Parameters Value Biological  
specimen

Basis

Sodium arsenate

dibasic

heptahydrate

10048-95-0 inorganic

arsenic plus

methylated

metabolites

35µg As/l Urine ACGIH - Biological

Exposure Indices

(BEI)

Remarks End of the workweek (After four or five consecutive working days with exposure)

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without

touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after

use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the

supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an

industrial hygienist and safety officer familiar with the specific situation of anticipated use by our

customers. It

should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to

the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle 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 a full-face supplied air respirator. Use respirators and components tested and

approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: crystalline

Colour: white

b) Odor No data available

c) Odor Threshold No data available

d) pH 8.5 - 9.0 at 50 g/l at 25 °C (77 °F)

e) Melting point/freezing point

Melting point/range: 180 °C (356 °F) - dec.

f) Initial boiling point and boiling range No data available

g) Flash point N/A

h) Evaporation rate No data available

i) Flammability (solid, gas) No data available

j) Upper/lower flammability or explosive limits No data available

k) Vapor pressure No data available

l) Vapor density No data available

m) Relative density 1.880 g/cm<sup>3</sup>

n) Water solubility No data available

o) Partition coefficient: noctanol/water No data available

p) Auto-ignition temperature No data available

q) Decomposition temperature No data available

r) Viscosity No data available

s) Explosive properties No data available

t) Oxidizing properties No data available

### 9.2 Other safety information

No data available

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## SECTION 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.  
10.3 Possibility of hazardous reactions  
No data available  
10.4 Conditions to avoid  
No data available  
10.5 Incompatible materials  
Strong oxidizing agents, Strong acids  
10.6 Hazardous decomposition products  
Other decomposition products - No data available  
In the event of fire: see section 5

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## SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects  
Acute toxicity  
No data available  
Inhalation: No data available  
Dermal: No data available  
LD50 Intramuscular - Mouse - 87.36 mg/kg  
LD50 Intramuscular - Mouse - 87.36 mg/kg  
Skin corrosion/irritation  
No data available  
Serious eye damage/eye irritation  
No data available  
Respiratory or skin sensitisation  
No data available  
Germ cell mutagenicity  
Laboratory experiments have shown mutagenic effects.  
Carcinogenicity  
This is or contains a component that has been reported to be carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.  
Possible human carcinogen  
IARC: 1 - Group 1: Carcinogenic to humans (Sodium arsenate dibasic heptahydrate)  
1 - Group 1: Carcinogenic to humans (Sodium arsenate dibasic heptahydrate)  
NTP: Known to be human carcinogen (Sodium arsenate dibasic heptahydrate)  
Known to be human carcinogen (Sodium arsenate dibasic heptahydrate)  
OSHA: 1910.1018 (Sodium arsenate dibasic heptahydrate)  
OSHA specifically regulated carcinogen (Sodium arsenate dibasic heptahydrate)  
Reproductive toxicity  
No data available  
No data available  
Specific target organ toxicity - single exposure  
No data available  
Specific target organ toxicity - repeated exposure  
No data available  
Aspiration hazard  
No data available  
Additional Information  
RTECS: CG0900000  
burning, dry nose, dry mouth, Muscle cramps/spasms., Nausea, Vomiting, Diarrhoea, Shock., death,  
May cause  
irritation of the:, Gastrointestinal tract

Stomach - Irregularities - Based on Human Evidence  
Stomach - Irregularities - Based on Human Evidence

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## **SECTION 12. ECOLOGICAL INFORMATION**

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

### 13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

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## **SECTION 14. TRANSPORT INFORMATION**

DOT (US)

UN number: 1685 Class: 6.1 Packing group: II

Proper shipping name: Sodium arsenate

Poison Inhalation Hazard: No

IMDG

UN number: 1685 Class: 6.1 Packing group: II EMS-No: F-A, S-A

Proper shipping name: SODIUM ARSENATE

Marine pollutant:yes

IATA

UN number: 1685 Class: 6.1 Packing group: II

Proper shipping name: Sodium arsenate

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## **SECTION 15. REGULATORY INFORMATION**

SARA 302 Components



No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Sodium arsenate dibasic heptahydrate

CAS-No.

10048-95-0

Revision Date

1987-01-01

#### SARA 311/312 Hazards

Acute Health Hazard, Chronic Health Hazard

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know Components

Sodium arsenate dibasic heptahydrate

CAS-No.

10048-95-0

Revision Date

1987-01-01

#### New Jersey Right To Know Components

Sodium arsenate dibasic heptahydrate

CAS-No.

10048-95-0

Revision Date

1987-01-01

#### California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Sodium arsenate dibasic heptahydrate

CAS-No.

10048-95-0

Revision Date

1987-02-27

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements 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 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.