SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

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

Product Code: NA-ASODB-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.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Synonyms : Sodium hydrogenarsenate heptahydrate
Disodium hydrogen arsenate heptahydrate
Formula : HAsNa2O4 7H2O
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 %

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

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

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.

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

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/m³
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/m³
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/m³
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/m³
USA. NIOSH Recommended
Exposure Limits
Potential Occupational Carcinogen
OSHA considers 'inorganic Arsenic' to mean copper acetarsenite &
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/m³ USA. ACGIH Threshold Limit Values
(TLV)
Lung cancer
Substances for which there is a Biological Exposure Index or Indices
Confirmed human carcinogen
varies
PEL 0.01 mg/m³ 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/m³ 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
35 µg 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.

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/cm³
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

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

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
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)
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
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
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.

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.

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

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

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 1997-2019 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.