

SODIUM ARSENITE 0.05 MOL/L (NAASO₂ 0.1N)SOLUTION

GHS Safety Data Sheet

Version No:5

Page 1 of 8

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

SODIUM ARSENITE 0.05MOL/L (NAASO₂ 0.1N) SOLUTION

OTHER NAMES

"concentrated sodium arsenite solution", "Arsenite 567"

PROPER SHIPPING NAME

SODIUM ARSENITE, AQUEOUS SOLUTION

PRODUCT USE

Used for chemical analysis.

SUPPLIER

Company: S D FINE- CHEM LIMITED

Address:

315- 317, T.V.Ind.Estate,

248, Worli Road,

Mumbai- 400030, India

www.sdfine.com

Telephone: 91- 22 24959898/99

Fax: 91- 22 2493 7232

Email: technical@sdfine.com

Section 2 - HAZARDS IDENTIFICATION

GHS Classification

Acute Toxicity Category 3

Acute Toxicity Category 2

Acute Toxicity Category 2

Carcinogen Category 1A

Chronic Aquatic Hazard Category 1



EMERGENCY OVERVIEW

HAZARD

DANGER

Determined by using GHS criteria

H300

Fatal if swallowed.

H311

Toxic in contact with skin.

H330

Fatal if inhaled.

H350

May cause cancer.

H410

Very toxic to aquatic life with long lasting effects.

continued...

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

PRECAUTIONARY STATEMENTS

Prevention

Code**Phrase**

Version No:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash ... 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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P284	Wear respiratory protection.

Response

Code**Phrase**

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
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.
P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P320	Specific treatment is urgent (see MSDS).
P330	Rinse mouth.
P361	Remove/Take off immediately all contaminated clothing.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.

Storage

Code**Phrase**

P403+P233	Store in a well- ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

Code**Phrase**

P501	Dispose of contents/container to ...
------	--------------------------------------

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
sodium arsenite	7784-46-5	30-60^
water	7732-18-5	Balance

Section 4 - FIRST AID MEASURES

SWALLOWED

- If poisoning occurs, contact a doctor or Poisons Information Centre.
 - IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.
 - For advice, contact a Poisons Information Centre or a doctor.
- Where Medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise:
- Induce vomiting with fingers down the back of the of the throat, ONLY IF CONSCIOUS.
 - Lean patient forward or place on left side (head-down position if possible) to maintain open airway and prevent aspiration.

EYE

- If this product comes in contact with the eyes:
- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

SKIN

- If skin or hair contact occurs:
- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

NOTES TO PHYSICIAN

- For acute or short term repeated exposures to arsenic, soluble compounds: Treat as per arsenic poisoning.
- Acute skin lesions such as contact dermatitis usually do not require other treatment than removal from exposure.
- If more severe symptoms of the respiratory system, the skin or the gastro-intestinal tract occur, British Anti-Lewisite (BAL, dimercaprol) may be given. Prompt administration in such cases is vital; to obtain maximum benefit such treatment should be administered within 4 hours of poisoning.
- In addition, general treatment such as prevention of further absorption from the gastro-intestinal tract are mandatory.
- General supportive therapy such as maintenance of respiration and circulation, maintenance of water and electrolyte balance and control of nervous system effects, as well as elimination of absorbed poison through dialysis and exchange transfusion, may be used if feasible.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.
- Use fire fighting procedures suitable for surrounding area.

FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered to be a significant fire risk.
- Expansion or decomposition on heating may lead to violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- DO NOT touch the spill material • Clean up all spills immediately
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

MAJOR SPILLS

- DO NOT touch the spill material POLLUTANT -contain spillage.
- Environmental hazard - contain spillage.
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water course.

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing mist.
- DO NOT allow clothing wet with material to stay in contact with skin.
- DO NOT use aluminium, galvanised or tin-plated containers.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.

SUITABLE CONTAINER

- Metal can or drum
- Packaging as recommended by manufacturer.
- Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- Segregate from strong acids and strong alkalis.
 - Contact with acids produces toxic fumes.
 - DO NOT use aluminium, galvanised or tin-plated containers.
- CARE: Arsenic, an extremely poisonous gas with a garlic odour may be quickly generated when the material reacts with acids and strong caustic alkalies or when arsenite solutions are in contact with Aluminium or Zinc metals.

STORAGE REQUIREMENTS

- Store in a bonded area.
- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA mg/m ³
India Permissible Levels of Certain Chemical Substances in Work Environment	sodium arsenite (Arsenic & soluble compounds (as As))	0.2

The following materials had no OELs on our records

- water:

CAS:7732- 18- 5

MATERIAL DATA

ALPHA SODIUM ARSENITE SOLUTION:

- None assigned. Refer to individual constituents.
sodium arsenite
- Use control measures / protective gear to avoid any personal contact. The ES-TWA is based solely on the prevention of systemic effects due to inhalation and is not protective against the substantial risk of cancer produced by exposure to inorganic arsenic.

Such surveillance should emphasise

- demography, occupational and medical history and health advice.

Inorganic arsenic compounds appear to produce an increased incidence of skin and lung cancers following their use in medicine, after drinking arsenic-contaminated water, or after occupational exposure. Cancers at other sites have been described but a clear association has yet to be determined.

continued...

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

GHS Safety Data Sheet

Page 5 of 8

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

WATER:

- No exposure limits set by NOHSC or ACGIH.

PERSONAL PROTECTION



EYE

- Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent].

HANDS/FEET

- Barrier cream and • Elbow length PVC gloves or • Wear chemical protective gloves, e.g. PVC
- Wear safety footwear or safety gumboots, e.g. Rubber.

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.

When spraying; wear: Cotton washable overalls buttoned to the neck and wrist and washable hat.

Full body protecting overalls required for other than spot spraying

Consider where spray drift may fall and DO NOT spray into wind.

ENGINEERING CONTROLS

- Use in a well-ventilated area.

If risk of inhalation or overexposure exists, wear SAA approved respirator or work in fume hood.

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Clear colourless solution.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Toxic or noxious vapours/gas.

State	Liquid	Molecular Weight	Not applicable.
Melting Range (°C)	Not available.	Boiling Range (°C)	100+
Solubility in water (g/L)	Miscible	Flash Point (°C)	Non Flammable
pH (1% solution)	Not available.	Decomposition Temp (°C)	Not available
pH (as supplied)	12.2	Autoignition Temp (°C)	Not available.
Vapour Pressure (kPa)	Not available.	Upper Explosive Limit (%)	Not applicable
Specific Gravity (water=1)	Not available	Lower Explosive Limit (%)	Not applicable

continued...

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

GHS Safety Data Sheet

Page 6 of 8

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

Relative Vapour Density (air=1)	Not available.	Volatile Component (%vol)	50- 60
Evaporation Rate	Slow. As water		

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

Health hazard summary table:

Acute toxicity	Acute Tox. (dermal) 3 Acute Tox. (inhal) 2 Acute Tox. (oral) 2
Skin corrosion/irritation	Not applicable
Serious eye damage/irritation	Not applicable
Respiratory or skin sensitization	Not applicable
Germ cell mutagenicity	Not applicable
Carcinogenicity	Carc. 1A
Reproductive toxicity	Not applicable
STOT- single exposure	Not applicable
STOT- repeated exposure	Not applicable
Aspiration hazard	Not applicable

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Symptoms of acute poisoning by arsenic ingestion, which develop within 4 hours include epigastric pain, vomiting and watery diarrhoea, nausea and vomiting.
- Blood may appear in vomitus and stools.
- Considered an unlikely route of entry in commercial/industrial environments.

SKIN

- Bare unprotected skin should not be exposed to this material.

CHRONIC HEALTH EFFECTS

- On the basis of epidemiological data, the material is regarded as carcinogenic to humans. There is sufficient data to establish a causal association between human exposure to the material and the development of cancer.
 - Considered toxic by all exposure routes.
- BE AWARE: Repeated minor exposures with only mild symptoms may have serious cumulative poisoning effect.
- Principal routes of exposure are usually by skin contact with the material and skin contact/absorption.
- Absorption by inhalation of spray/mist or ingestion causes irritation of stomach, intestines with nausea, vomiting and diarrhoea; bloody stools, shock, rapid pulse, coma and possible death following.
- Minor mist inhalation may cause pulmonary oedema, restlessness, difficult breathing, cyanosis, cough with foamy sputum and rales.
- Sub Chronic poisoning may lead to a loss of hair and nails, pigmentation to the skin.

TOXICITY AND IRRITATION

- Not available. Refer to individual constituents.

continued...

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

Section 12 - ECOLOGICAL INFORMATION

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
This material and its container must be disposed of as hazardous waste.
Avoid release to the environment.
Refer to special instructions/ safety data sheets.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
Alpha Sodium Arsenite Solution	No Data Available	No Data Available	No Data Available	No Data Available

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Bury residue in an authorised landfill.
- Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: TOXIC

HAZCHEM:

2X

Land Transport UNDG:

Class or division:	6.1	Subsidiary risk:	None
UN No.:	1686	UN packing group:	III
Shipping Name: SODIUM ARSENITE, AQUEOUS SOLUTION			

Air Transport IATA:

ICAO/IATA Class:	6.1	ICAO/IATA Subrisk:	None
UN/ID Number:	1686	Packing Group:	III
Special provisions:	A3		

Shipping name: SODIUM ARSENITE, AQUEOUS SOLUTION

Maritime Transport IMDG:

IMDG Class:	6.1	IMDG Subrisk:	None
UN Number:	1686	Packing Group:	III
EMS Number:	F- A, S- A	Special provisions:	43 223
Limited Quantities:	5 L	Marine Pollutant:	Yes
Shipping name: SODIUM ARSENITE, AQUEOUS SOLUTION			

Section 15 - REGULATORY INFORMATION

REGULATIONS

continued...

SODIUM ARSENITE 0.05 MOL/L (NAASO2 0.1N)SOLUTION

Section 15 - REGULATORY INFORMATION

Alpha Sodium Arsenite Solution (CAS:) is found on the following regulatory lists;

"International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs"

Regulations for ingredients

water (CAS: 7732-18-5) is found on the following regulatory lists;

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD List of High Production Volume (HPV) Chemicals", "OSPAR National List of Candidates for Substitution – Norway", "Sigma-Aldrich Transport Information"

Section 16 - OTHER INFORMATION

- Classification of the preparation and its individual components has drawn on official and authoritative sources using available literature references.

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

The above information is believed to be accurate and represent the best information currently available to us, but does not represent any warranty expressed or implied of the properties of the product. User should make their own investigation to determine the suitability of the information for their particular purpose.

Issue date: 16-June 2018