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Arsenic 10000 ppm Single Element Standard for ICP in HNO₃

MATERIAL SAFETY DATA SHEET SDS/MSDS

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 **Product identifiers**
 - Product name : Arsenic 10000 ppm Single Element Standard for ICP in HNO₃

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet

| Company | : Central Drug House (P) Ltd 7/28 Vardaan House New Delhi-10002 INDIA |
|-----------|--|
| Telephone | : +91 11 49404040 |
| Email | : care@cdhfinechemical.com |

1.4 Emergency telephone number Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Corrosive to metals (Category 1), H290 Acute toxicity, Oral (Category 4), H302 Skin corrosion (Category 1B), H314 Carcinogenicity (Category 1A), H350 Chronic aquatic toxicity (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC

| Т | Toxic | R45 |
|---|-------------------|--------|
| Т | Toxic | R25 |
| С | Corrosive | R34 |
| Ν | Dangerous for the | R51/53 |
| | environment | |

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 Pictogram



| Signal word | Danger |
|---|---|
| Hazard statement(s) H290 H302 H314 H350 H411 | May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. May cause cancer. Toxic to aquatic life with long lasting effects. |
| Precautionary statement(s) | |
| P201 | Obtain special instructions before use. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P304 + P340 + P310 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313 | IF exposed or concerned: Get medical advice/ attention. |
| Supplemental Hazard Statements | none |
| Restricted to professional users | |

According to European Directive 67/548/EEC as amended.

| Hazard symbol(s) | T Toxic N Dangerous for the environment |
|------------------|---|
| R-phrase(s) | |
| R45 | May cause cancer. |
| R25 | Also toxic if swallowed. |
| R34 | Causes burns. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S-phrase(s) | |
| S53 | Avoid exposure - obtain special instructions before use. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| 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). |
| S61 | Avoid release to the environment. Refer to special instructions/ Safety data sheets. |

Restricted to professional users.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

| Hazardous ingredien | ts according to Regulatio | n (EC) No 1272/2008 | |
|----------------------------------|---------------------------|--|---------------|
| Component | | Classification | Concentration |
| Nitric acid CAS-No. EC-No. | 7697-37-2 231-714-2 | Ox. Liq. 3; Skin Corr. 1A; H272, H314 | >= 5 - < 10 % |

Index-No. 007-004-00-1

Arsenic trioxide Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

| CAS-No. | 1327-53-3 | Acute Tox. 2; Skin Corr. 1B; | >= 1 - < 2,5 % |
|-----------|--------------|------------------------------|----------------|
| EC-No. | 215-481-4 | Carc. 1A; Aquatic Acute 1; | |
| Index-No. | 033-003-00-0 | Aquatic Chronic 1; H300, | |
| | | H314, H350, H410 | |

| Hazardous ingredients according to Directive 1999/45/EC | | | |
|---|--------------|-----------------|---------------|
| Component | | Classification | Concentration |
| Nitric acid | | | |
| CAS-No. | 7697-37-2 | O, C, R 8 - R35 | >= 5 - < 10 % |
| EC-No. | 231-714-2 | | |
| Index-No. | 007-004-00-1 | | |

Arsenic trioxide Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

| CAS-No. | 1327-53-3 | T+, N, Carc.Cat.1, R45 - R28 - | >= 1 - < 2,5 % |
|-----------|--------------|--------------------------------|----------------|
| EC-No. | 215-481-4 | R34 - R50/53 | , |
| Index-No. | 033-003-00-0 | | |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

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.

If inhaled

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

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. 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 Nitrogen oxides (NOx), 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 breathing vapours, mist or gas. Ensure adequate ventilation.
 Evacuate personnel to safe areas.
 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 Soak up with inert absorbent material and dispose of as hazardous waste. 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 exposure - obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

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

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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: clear, liquid Colour: colourless |
|----|--|---|
| b) | Odour | No data available |
| c) | Odour Threshold | No data available |
| d) | рН | No data available |
| e) | Melting point/freezing point | No data available |
| f) | Initial boiling point and boiling range | No data available |
| g) | Flash point | No data available |
| h) | Evaporation rate | No data available |
| i) | Flammability (solid, gas) | No data available |
| j) | Upper/lower flammability or explosive limits | No data available |
| k) | Vapour pressure | No data available |
| I) | Vapour density | No data available |
| m) | Relative density | No data available |
| n) | Water solubility | No data available |
| o) | Partition coefficient: n- octanol/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 |
| | her safety information data available | |

9.2

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** No data available
- **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

Skin corrosion/irritation No data available

Serious eye damage/eye irritation No data available

Respiratory or skin sensitisation No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 1 - Group 1: Carcinogenic to humans (Arsenic trioxide)

1 - Group 1: Carcinogenic to humans (Arsenic trioxide)

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: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence (Nitric acid)

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 This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

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.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

| 14.1 | UN number ADR/RID: 2031 | IMDG: 2031 | IATA: 2031 |
|------|--|---------------------------|------------|
| 14.2 | UN proper shipping nameADR/RID:NITRIC ACIDIMDG:NITRIC ACIDIATA:Nitric acid | | |
| 14.3 | Transport hazard class(es) ADR/RID: 8 | IMDG: 8 | IATA: 8 |
| 14.4 | Packaging group ADR/RID: II | IMDG: II | IATA: II |
| 14.5 | Environmental hazards ADR/RID: no | IMDG Marine pollutant: no | IATA: no |
| 14.6 | Special precautions for user | | |

No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Authorisations and/or restrictions on use

Arsenic trioxide CAS-No.: 1327-53-3 REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). Carcinogenic (article 57a) ED/67/2008 Arsenic trioxide CAS-No.: 1327-53-3 REACH - List of substances subject to authorisation (Annex XIV) Carcinogenic (category 1A) Sunset Date: 21.05.2015

Arsenic trioxide CAS-No.: 1327-53-3 REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) Carcinogens: category 1A Restricted to professional users. See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

Arsenic trioxide CAS-No.: 1327-53-3 Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals Exempted (Categories of) Uses: other pesticide including biocides

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

| Acute Tox. | Acute toxicity |
|-----------------|---|
| Aquatic Acute | Acute aquatic toxicity |
| Aquatic Chronic | Chronic aquatic toxicity |
| Carc. | Carcinogenicity |
| H272 | May intensify fire; oxidiser. |
| H290 | May be corrosive to metals. |
| H300 | Fatal if swallowed. |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H350 | May cause cancer. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| H411 | Toxic to aquatic life with long lasting effects. |
| Ox. Liq. | Oxidizing liquids |
| Skin Corr. | Skin corrosion |

Full text of R-phrases referred to under sections 2 and 3

| С | Corrosive |
|--------|--|
| R 8 | Contact with combustible material may cause fire. |
| R25 | Toxic if swallowed. |
| R28 | Very toxic if swallowed. |
| Ν | Dangerous for the environment |
| 0 | Oxidising |
| R34 | Causes burns. |
| R35 | Causes severe burns. |
| R45 | May cause cancer. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| T+ | Very toxic |

Further information

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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.