

Centre Anti-Poison pour le Québec: (800) 463-5060 Tél. (Qc): (418) 660-8666 / 800-890-8666 Fax. (Qc): (418) 660-8998

SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

| Product Identifier | | | Product Use | | |
|---|-----------------------|-----------------------------|---|----------------------------------|--------------|
| ARSENIC (III) OXIDE (PRIMARY STD) | | | | Laboratory use | |
| Chemical formula | | | | Product code | Molar weight |
| As ₂ O ₃ | | | | AR-0163 | 197,84 |
| Chemical name / Commercial name / Synonymous ARSENIC (III) OXIDE, OXYDE D'ARSENIC, OXYDE D'ARSENIC (III), ACIDE ARSENIEL SESQUIOXYDE D'ARSENIC, ARSENIC BLANC, ARSENOLITE | | |), ACIDE ARSENIEUX | (, OXYDE ARSENIEUX, ANHYDRIDE AR | SENIEUX, |
| Supplier's name | | | Address-Street | | |
| Laboratoire MAT | | | 610, Adanac Street | | |
| City | | | Province | | |
| Québec | | | Québec | | |
| Postal code | Postal code Internet | | Phone number | | |
| G1C 7B7 www.labmat.com | | 418-660-8666 / 800-890-8666 | | | |
| Emergency phone | CANUTEC: 613-996-6666 | | CENTRE ANTI-POISON DU QUÉBEC 800-463-5060 | | |
| Date SDS | SDS Prepared by | | | E-Mail | |
| 11/17/2020 | Laboratoire MA | | .T | labmat@labmat.com | |

SECTION 02 - HAZARDS IDENTIFICATION

| Classification WHIMS / GHS | | | | |
|------------------------------|---|--|--|--|
| | Skin corrosion/irr | ritation - Skin corrosion category 1B | | |
| | Serious eye dame | age/eye irritation - Serious eye damage category 1 | | |
| | Carcinogenicity c | ategory 1A | | |
| | Acute toxicity - C | Oral category 2 | | |
| Signal Word | DANGER | | | |
| Hazards statements (H) | H300 Fatal if swa | allowed. | | |
| | H314 Causes severe skin burns and eye damage. | | | |
| | H318 Causes ser | ious eye damage. | | |
| | H350 May cause | e cancer. | | |
| Precautionary statements (P) | 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 / vapors / spray. | | |
| | P264 | Wash the areas of the body that have been in contact with the product after handling. | | |
| | P270 | Do no eat, drink or smoke when using this product. | | |
| | P280 | Wear protective gloves/protective clothing/eye protection/face protection. | | |
| | P301 + P310 | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. | | |
| | P301 + P330 + | P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. | | |
| | | P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. | | |
| | P304 + P340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. | | |
| | 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. | | |
| | P310 | Immediately call a POISON CENTER or doctor/physician. | | |
| | P321 | Specific treatment (see section 4 of the SDS and on this label). | | |
| | P330 | Rinse mouth. | | |
| | P363 | Wash contaminated clothing before reuse. | | |
| | P405 | Store locked up. | | |
| | P501 | Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. | | |
| PICTOGRAMS | The Carried States | | | |
| Other dangers | 1 | NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Signifiant; 4=Extreme) | | |
| | Health 3 Fire 0 Reactivity 0 Special danger | | | |
| | | | | |

SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

| Ingrédients (Dénomination chimique / synonymes) | Numéro CAS et tout identificateur unique | Concentration (%) |
|---|--|-------------------|
| Trioxyde d'arsenic | 1327-53-3 | <=100 |

SECTION 04 - FIRST AID MEASURES

| Eye contact | Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. Seek immediate medical attention. |
|---|--|
| Skin contact | Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. Seek immediate medical attention. |
| Inhalation | Move the unwell person to the fresh air. If breathing is difficult, give oxygen. If the victim is not breathing, give artificial respiration. Seek immediate medical attention. |
| Ingestion | If the person is conscious, drink water and induce vomiting. The use of dimercaprol or British Anti Lewisite (BAL) as an antidote may be recommended in the case of poisoning with some heavy metals, but first notify the medical staff. Get immediate medical help. |
| Most important symptoms and effects (acute and delayed) | Main symptoms of high exposure: Chemical burns of the skin. Eyes irritation. Nausea and vomiting. Pneumonia. Gastrointestinal disorders. Central nervous system depression. Breathing difficulties. Hepatotoxic effects. Nephrotoxic effects. Eye damage. Cough. Headaches. Ref. section 11. |
| Immediate medical attention and special treatment, if necessary | In case of poisoning, the following can be administered as an antidote: Dimercaprol or British Lewisite (BAL). Ipecac. Activated charcoal. In case of medical consultation, keep this sheet available. |
| General advice | Show this safety data sheet to the doctor in attendance. |

SECTION 05 - FIREFIGHTING MEASURES

| Flammability | No |
|---|---|
| Ignition conditions | Not flammable or combustible. |
| Suitable extinguishing media | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | Data not available. |
| Hazardous combustion products | Hazardous combustion products formed under fire conditions: Arsenic oxides. Arsine. |
| Special fire and explosion hazards | Arsenic trioxide can react violently on contact with the following products: chlorine trifluoride, fluorine, oxygen difluoride, mercury and sodium chlorate. May react violently with incompatible products (Ref Section 10). |
| Special protective equipment and precautions for firefighters | Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus. |

SECTION 06 - ACCIDENTAL RELEASE MEASURES

| Methods and materials for | Evacuate personnel to safe areas. Ensure adequate ventilation. Use personal protective equipment. Use |
|-----------------------------------|---|
| containment and cleaning up / | a respirator as needed. Pick up with a shovel or broom, taking care not to scatter dust. Dispose of |
| Personnal precautions, protective | residues in a container provided for the disposal of hazardous materials. Do not let product enter |
| equipment | drains. Discharge into the environment must be avoided. |

SECTION 07 - HANDLING AND STORAGE

| Store in a cool, dry place. Keep container tightly closed and store away from heat, moisture, and incompatible products. |
|--|
| Very harmfull product. Ensure good ventilation. Use only under a fume hood. Avoid ingestion and inhalation. Avoid contact with the skin, eyes and clothes. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14) |

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

| Components | No CAS | Control parameters | Value | Basis |
|--|--------------------------|-------------------------------|---|---|
| Arsenic trioxide | 1327- 53-3 | DIVS | 10 mg/m ³ (expressed in As) | Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants |
| Remarks: Co | arcinoger | nic effect sus | pected in humans | |
| | | TWA | 0.01 mg/m3 | Canada. Alberta, Occupational Health and Safety Code (table 2: OEL) |
| Remarks: Co | nfirmed | Human Carci | inogen (means that | the agent is carcinogenic to humans) |
| | | TWA | 0.01 mg/m3 | Canada. British Columbia OEL |
| IARC '1' app humans. ACG studies | olies to su IH 'A1' a | bstances cat pplies to tho | egorized as carcin se substances confi | ogenic to humans, and used when there is sufficient evidence of carcinogenicity in rmed as human carcinogens based on the weight of evidence from epidemiological |
| | | TWA | 0.01 mg/m3 | Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act. |
| | | STEL | 0.05 mg/m3 | Ontario Table of Occupational Exposure Limits made under the Occupational Health and Safety Act. |

| Data source | Sigma-Aldrich (Millipore Sigma) CNESST |
|---------------------|--|
| Ventilation | Fan. |
| Respiratory | If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply. |
| Gloves | Handle with gloves. |
| Eyes | Safety goggles with safety shutters. |
| Shoes | Safety shoes. |
| Clothing | Labcoat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. |
| Engineering control | Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values. |

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

| Physical state | Solid. |
|---------------------------------------|---|
| Appearance | Poudre blanc-gris clair. |
| Odour | Inodore. |
| Odour threshold | Data not available |
| рН | Donnée non-disponible. |
| Melting point / Freezing point | 274-313°C |
| Initial boiling point | 460°C (subl). |
| Boiling range | Data not available |
| Flash point | Data not available |
| Evaporation rate | Data not available |
| Flammability | No |
| Lower flammable / Explosive limit | Data not available |
| Upper flammable / Explosive limit | Data not available |
| Vapour pressure | 0.000001 hPa à 66 °C. |
| Vapour density | Data not available |
| Relative density | $3.738 g/cm^3$ |
| Solubility | Peu soluble dans l'eau (17-37g/L à 20°C). Insoluble dans l'alcool, le chloroforme et l'éther. |
| Partition coefficient water/n-octanol | Data not available |
| Auto-ignition temperature | Data not available |
| Decomposition temperature | Data not available |
| Viscosity | Data not available |

SECTION 10 - STABILITY AND REACTIVITY

| Reactivity | May react violently with incompatible substances. | | | |
|---|--|--|--|--|
| Chemical stability | May decompose on exposure to moist air or water. | | | |
| Possibility of hazardous reactions | Danger of explosion with: Aluminum, magnesium, zinc. Possibility of violent reactions with: halogens, hydrogen halides, strong reducing agents, bromine, fluorine, halogen-halogen compounds, hydrogen fluoride, nitrates, chlorates, mercury. | | | |
| Conditions of instability (Including sensitivity to shock / static discharge / vibration) | This product may decompose if exposed to moisture from the air or water. | | | |
| Incompatible material | Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids, tannic acid, alkalis, chlorine trifluoride, rubidium carbide, active metals (aluminum, iron, magnesium, manganese, sodium, zinc, etc.), fluorine, bromine and other halogens, and hydrogen halides, hydrogen fluoride, oxygen difluoride, mercury, halogens, reducing agents, herbal infusions and decoctions, heat and humidity. | | | |
| Hazardous decomposition products | Toxic vapors of arsenic oxides. Arsine. | | | |

SECTION 11 - TOXICOLOGICAL INFORMATION

ARSENIC (III) OXIDE (PRIMARY STD)

| Routes of exposure | Ingestion, inhalation, skin and eyes. |
|---|---|
| Acute exposition effects / symptoms: | By exposure route below. |
| - Eyes | Irritation and may cause inflammation of the conjunctiva. |
| - Skin | Irritation and dermatitis. |
| - Inhalation | Irritation of the mucous membranes and respiratory tract. Damage to the lungs, chest pain, cough, dyspnea, shortness of breath, headache, dizziness, erythema, nausea and vomiting, convulsions, hypotension, tachycardia, chemical pneumonia and pulmonary edema which can lead to death. |
| Acute toxicity (Ingestion) | Irritation and burning of mucous membranes. Dysphagia, haemorrhagic gastroenteritis, abdominal pain, cramps, profuse diarrhea, headache, dizziness, nausea and vomiting, tachycardia, convulsions, hypotension, unconsciousness, coma and can lead to death. |
| Chronic exposure effects / symptoms | Burning sensation, dermatitis, conjunctivitis, skin sensitization, liver and kidney damage, chest pain, cough, dyspnea, headache, dizziness, confusion, irritability, erythema, sweating, salivation, taste of garlic in mouth, anemia, fatigue, tachycardia, weight loss and loss of appetite, convulsions, nausea and vomiting. Prolonged exposure to this product is likely to cause cancer. Is recognized as a carcinogen (class 1) by IARC. Possible skin sensitization. |
| DL50 (specify species and route of entry) | LD50 Oral - Rat - 14.6 mg/kg. LD50 Dermal: Data not available. |
| CL50 (specify species and route of entry) | LC50 - Inhalation - Data not available. |

SECTION 12 - ECOLOGICAL INFORMATION

| Ecotoxicity | Toxicity to fish: Flow-through test - Pimephales promelas (fathead minnow) - 12.6 mg/L - 96h. |
|-------------------------------|---|
| Persistence and degradability | The methods for determining the biological degradability are not applicable to inorganic substances. |
| Bioaccumulative potential | Bioaccumulation - Lepomis cyanellus - Bioconcentration factor (BCF): 236. |
| Mobility in soil | Data not available. |
| | Very toxic to aquatic life with long lasting effects. Do not flush into surface water or sanitary sewer system. The product must not contaminate groundwater. |

SECTION 13 - DISPOSAL CONSIDERATIONS

| • | Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company. |
|------------------------|--|
| Contaminated Packaging | Dispose of as unused product. |

SECTION 14 - TRANSPORT INFORMATION

| UN Number | 1561 |
|----------------------------|----------------------|
| UN Proper shipping name | TRIOXYDE D'ARSENIC |
| Transport hazard class(es) | 6.1 Toxic substances |
| Packing group | |
| Limited quantity index | 0,5kg |
| ERAP Index | - |
| Special precautions | - |

SECTION 15 - REGULATORY INFORMATION

| WHIMS CANADA | Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1 |
|--------------|--|
| | Carcinogenicity category 1A Acute toxicity - Oral category 2 |

SECTION 16 - OTHER INFORMATION

Further information

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. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 11/17/2020