SAFETY DATA SHEET

Updated on 26/09/2024

1. Material Identification

Product Name : Arsenic acid
Catalog Number : io-1758
CAS Number : 7778-39-4
Identified uses : Laboratory chemicals, manufacture of chemical compounds
Company : Ionz

>> R&D Use only

2. Hazards Identification

GHS Classification:

Flammable liquid (category 2)
Acute toxicity, oral (Category 3)
Acute toxicity, dermal (Category 3)
Acute toxicity, inhalation (Category 3)
Specific target organ toxicity, single exposure (Category 1)

Pictogram(s)

GHS Hazard Statements

>> H301+H331 (79.3%): Toxic if swallowed or if inhaled [Danger Acute toxicity, oral; acute toxicity, inhalation]

>> H301 (100%): Toxic if swallowed [Danger Acute toxicity, oral]

>> H312 (79.3%): Harmful in contact with skin [Warning Acute toxicity, dermal]

>> H314 (79.3%): Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]

>> H318 (79.3%): Causes serious eye damage [Danger Serious eye damage/eye irritation]

>> H331 (100%): Toxic if inhaled [Danger Acute toxicity, inhalation]

>> H350 (100%): May cause cancer [Danger Carcinogenicity]

>> H361 (75.9%): Suspected of damaging fertility or the unborn child [Warning Reproductive toxicity]

>> H400 (100%): Very toxic to aquatic life [Warning Hazardous to the aquatic environment, acute hazard]

>> H410 (100%): Very toxic to aquatic life with long lasting effects [Warning Hazardous to the aquatic environment, long-term hazard]

Precautionary Statement Codes

>> P203, P260, P261, P264, P264+P265, P270, P271, P273, P280, P301+P316, P301+P330+P331, P302+P352, P302+P361+P354, P304+P340, P305+P354+P338, P316, P317, P318, P321, P330, P362+P364, P363, P391, P403+P233, P405, and P501

Health Hazards:

>> Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

>> TOXIC and/or CORROSIVE; inhalation, ingestion or skin contact with material may cause severe injury or death. Contact with molten substance may cause severe burns to skin and eyes. Avoid any skin contact. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause environmental contamination. (ERG, 2024)

ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

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>> Fire may produce irritating, corrosive and/or toxic gases.

>> Runoff from fire control or dilution water may be corrosive and/or toxic and cause environmental contamination.

>> Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

>> Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Some are oxidizers and may ignite combustibles (wood, paper, oil, clothing, etc.). Corrosives in contact with metals may evolve flammable hydrogen gas. Containers may explode when heated. For electric vehicles or equipment, ERG Guide 147 (lithium ion or sodium ion batteries) or ERG Guide 138 (sodium batteries) should also be consulted. (ERG, 2024)

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>> Containers may explode when heated.

>> For electric vehicles or equipment, GUIDE 147 (lithium ion or sodium ion batteries) or GUIDE 138 (sodium batteries) should also be consulted.

3. Composition/Information On Ingredients

Chemical name : Arsenic acid
CAS Number : 7778-39-4
Molecular Formula : AsH3O4
Molecular Weight : 141.9430 g/mol

4. First Aid Measures

First Aid:

>> Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

>> Refer to the "General First Aid" section. Specific First Aid: For corrosives, in case of contact, immediately flush skin or eyes with running water for at least 30 minutes. Additional flushing may be required. (ERG, 2024)

ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> General First Aid:

>> Call 911 or emergency medical service.

>> Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and avoid contamination.

>> Move victim to fresh air if it can be done safely.

>> Administer oxygen if breathing is difficult.

>> If victim is not breathing:

>> DO NOT perform mouth-to-mouth resuscitation; the victim may have ingestedor inhaled the substance.

>> If equipped and pulse detected, wash face and mouth, then give artificial respiration using a proper respiratory medical device (bag-valve mask, pocket mask equipped with a one-way valve or other device).

>> If no pulse detected or no respiratory medical device available, provide continuouscompressions. Conduct a pulse check every two minutes or monitor for any signs of spontaneous respirations.

>> Remove and isolate contaminated clothing and shoes.

>> For minor skin contact, avoid spreading material on unaffected skin.

>> In case of contact with substance, remove immediately by flushing skin or eyes with running water for at least 20 minutes.

>> For severe burns, immediate medical attention is required.

>> Effects of exposure (inhalation, ingestion, or skin contact) to substance may be delayed.

>> Keep victim calm and warm.

>> Keep victim under observation.

>> For further assistance, contact your local Poison Control Center.

>> Note: Basic Life Support (BLS) and Advanced Life Support (ALS) should be done by trained professionals.

>> Specific First Aid:

>> For corrosives, in case of contact, immediately flush skin or eyes with running water for at least 30 minutes. Additional flushing may be required.

>> In Canada, an Emergency Response Assistance Plan (ERAP) may be required for this product. Please consult the shipping paper and/or the "ERAP" section.

First Aid Measures

Inhalation First Aid

>> Fresh air, rest. Refer for medical attention.

Skin First Aid

>> Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention .

Eye First Aid

>> First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Ingestion First Aid

>> Rinse mouth. Refer for medical attention .

5. Fire Fighting Measures

>> Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

>> SMALL FIRE: Dry chemical, CO2 or water spray.

>> LARGE FIRE: Dry chemical, CO2, alcohol-resistant foam or water spray. If it can be done safely, move undamaged containers away from the area around the fire. Dike runoff from fire control for later disposal.

>> FIRE INVOLVING TANKS, RAIL TANK CARS OR HIGHWAY TANKS: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. Do not get water inside containers. Cool containers with flooding quantities of water until well after fire is out. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks in direct contact with flames. (ERG, 2024)

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>> In case of fire in the surroundings, use appropriate extinguishing media.

6. Accidental Release Measures

Isolation and Evacuation:

Isolation and evacuation measures to take when a large amount of this chemical is accidentally released in an emergency.

>> Excerpt from ERG Guide 154 [Substances - Toxic and/or Corrosive (Non-Combustible)]:

>> IMMEDIATE PRECAUTIONARY MEASURE: Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

>> SPILL: Increase the immediate precautionary measure distance, in the downwind direction, as necessary.

>> FIRE: If tank, rail tank car or highway tank is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. (ERG, 2024)

Evacuation: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> Immediate precautionary measure

>> Isolate spill or leak area in all directions for at least 50 meters (150 feet) for liquids and at least 25 meters (75 feet) for solids.

>> Spill

>> For non-highlighted materials: increase the immediate precautionary measure distance, in the downwind direction, as necessary.

>> Fire

>> If tank, rail tank car or highway tank is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

Spillage Disposal:

Methods for containment and safety measures to protect workers dealing with a spillage of this chemical.

>> Evacuate danger area! Consult an expert! Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable plastic containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

Accidental Release Measures

Public Safety: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> CALL 911. Then call emergency response telephone number on shipping paper. If shipping paper not available or no answer, refer to appropriate telephone number listed on the inside back cover.

>> Keep unauthorized personnel away.

>> Stay upwind, uphill and/or upstream.

>> Ventilate closed spaces before entering, but only if properly trained and equipped.

Spill or Leak: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> ELIMINATE all ignition sources (no smoking, flares, sparks or flames) from immediate area.

>> Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

>> Stop leak if you can do it without risk.

>> Prevent entry into waterways, sewers, basements or confined areas.

>> Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

>> DO NOT GET WATER INSIDE CONTAINERS.

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7. Handling And Storage

Safe Storage:

>> Store in an area without drain or sewer access. Separated from strong oxidants, strong bases, metals, strong reducing agents and food and feedstuffs. Do NOT store or transport in containers made from aluminium, copper, iron or zinc.

Storage Conditions:

>> Protect container against physical damage. Store in well ventilated area away from food or food products and combustible materials. /Inorganic arsenic cmpd/

8. Exposure Control/ Personal Protection

>> 0.01 [mg/m3], as As

>> 0.01 [mg/m3], as As

>> (as As): 0.01 mg/m

EU-OEL

>> (inhalable fraction): 0.01 mg/m

MAK (Maximale Arbeitsplatz Konzentration)

>> skin absorption (H); carcinogen category: 1; germ cell mutagen group: 3A.

Emergency Response: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> Small Fire

>> Dry chemical, CO2 or water spray.

>> Large Fire

>> Dry chemical, CO2, alcohol-resistant foam or water spray.

>> If it can be done safely, move undamaged containers away from the area around the fire.

>> Dike runoff from fire control for later disposal.

>> Fire Involving Tanks, Rail Tank Cars or Highway Tanks

>> Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles.

>> Do not get water inside containers.

>> Cool containers with flooding quantities of water until well after fire is out.

>> Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

>> ALWAYS stay away from tanks in direct contact with flames.

Inhalation Risk:

>> A harmful contamination of the air can be reached very quickly on evaporation of this substance at 20 °C on spraying.

Effects of Short Term Exposure:

>> The substance is corrosive to the eyes, skin and respiratory tract. The substance may cause effects on the blood, cardiovascular system, gastrointestinal tract, liver and nervous system. The effects may be delayed.

Effects of Long Term Exposure:

>> The substance may have effects on the peripheral nervous system, skin and cardiovascular system. This may result in polyneuropathy and skin lesions. This substance is carcinogenic to humans.

Acceptable Daily Intakes:

An estimate of the amount of a chemical in food or drinking water that can be consumed daily over a lifetime without presenting an appreciable risk to health. It is usually expressed as milligrams of the substance per kilogram of body weight per day and applies to chemicals such as food additives, pesticide residues and veterinary drugs.

>> WHO= 0.002 mg/kg /Inorganic arsenic cmpd, as As; from table/

Exposure Prevention

>> AVOID ALL CONTACT! IN ALL CASES CONSULT A DOCTOR!

Inhalation Prevention

>> Use closed system or ventilation.

Skin Prevention

>> Protective gloves. Protective clothing.

Eye Prevention

>> Wear face shield.

Ingestion Prevention

>> Wash hands before eating. Do not eat, drink, or smoke during work.

Exposure Control and Personal Protection

Protective Clothing: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

>> Wear positive pressure self-contained breathing apparatus (SCBA).

>> Wear chemical protective clothing that is specifically recommended by the manufacturer when there is NO RISK OF FIRE.

>> Structural firefighters' protective clothing provides thermal protection but only limited chemical protection.

Protective Clothing: ERG 2024, Guide 154 (Arsenic acid, liquid; Arsenic acid, solid)

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Exposure Summary

>> Biological Exposure Indices (BEI) [ACGIH] - Inorganic arsenic plus methylated metabolites in urine = 35 ug As/L; end of workweek;

9. Physical And Chemical Properties

Molecular Weight:

>> 141.943

Exact Mass:

>> 141.924728

Physical Description:

>> Arsenic acid, liquid appears as a clear colorless aqueous solution. Noncombustible. Corrosive to metals. Toxic by ingestion. Confirmed human carcinogen. Detrimental to the environment. Immediate steps should be taken to limit release.

>> COLOURLESS-TO-PALE-GREEN-VISCOUS LIQUID.

Color/Form:

>> WHITE TRANSLUCENT CRYSTALS /HEMIHYDRATE/

Boiling Point:

>> Boiling point (-H2O): 160 °C /Hemihydrate/

>> 120 °C (calculated)

Melting Point:

>> 35 °C

>> -30 °C (calculated)

Solubility:

>> Freely sol in alcohol, glycerol /Hemihydrate/

>> Solubility in water at 20 °C: very good

Density:

>> 2.2 at 68 °F (USCG, 1999) - Denser than water; will sink

>> Relative density (water = 1): 1.9 (calculated)

Vapor Pressure:

>> Vapor pressure, kPa at 15 °C: 1.3

Stability/Shelf Life:

>> The pH of aqueous solutions appears to be a major factor in the relative stability. ... Pentavalent inorganic arsenic ... is relatively stable at neutral or alkaline pH but undergoes reduction with decreasing pH. /Pentavalent inorganic arsenic/

Decomposition:

>> When heated to decomposition it emits toxic fumes of arsenic.

Corrosivity:

The ability of a chemical to damage or destroy other substances when it comes into contact.

>> IT WILL SLOWLY ATTACK MILD STEEL & REACTS WITH GALVANIZED METALS AND BRASS

pH:

pH is an expression of hydrogen ion concentration in water. Specifically, pH is the negative logarithm of hydrogen ion (H+) concentration (mol/L) in an aqueous solution. The term is used to indicate basicity or acidity of a solution on a scale of 0 to 14, with pH 7 being neutral.

>> WEAK ACIDIC PROPERTIES.

Dissociation Constants:

>> PK2= 7.089 +/- 0.01 @ 25 °C

10. Stability And Reactivity

>> Water soluble.

11. Toxicological Information

Toxicity Summary:

>> Arsenic and its metabolites disrupt ATP production through several mechanisms. At the level of the citric acid cycle, arsenic inhibits pyruvate dehydrogenase. By competing with phosphate it uncouples oxidative phosphorylation, thus inhibiting energy-linked reduction of NAD+, mitochondrial respiration, and ATP synthesis. Hydrogen peroxide production is also increased, which might form reactive oxygen species and oxidative stress. Arsenic's carginogenicity is influenced by the arsenical binding of tubulin, which results in aneuploidy, polyploidy and mitotic arrests. The binding of other arsenic protein targets may also cause altered DNA repair enzyme activity, altered DNA methylation patterns and cell proliferation. (T1, A17)

Evidence for Carcinogenicity:

Evidence that this chemical does or may cause cancer. The information here is collected from various sources by the Hazardous Substances Data Bank (HSDB).

>> Classification of carcinogenicity: 1) evidence in humans: sufficient; 2) evidence in animals: limited. Overall summary evaluation of carcinogenic risk to humans is Group 1: Carcinogenic to humans. NOTE: This evaluation applies to the group of chemicals as a whole and not necessarily to all individual chemicals within the group. /Arsenic and arsenic compounds/

Carcinogen Classification:

This section provides the International Agency for Research on Cancer (IARC) Carcinogenic Classification and related monograph links. In the IARC Carcinogenic classification, chemicals are categorized into four groups: Group 1 (carcinogenic to humans), Group 2A (probably carcinogenic to humans), Group 2B (possibly carcinogenic to humans), and Group 3 (not classifiable as to its carcinogenicity to humans).

>> 1, carcinogenic to humans. (L135)

Health Effects:

>> Arsenic poisoning can lead to death from multi-system organ failure, probably from necrotic cell death and not apoptosis. Arsenic is also a known carcinogen, especially in skin, liver, bladder and lung cancers. (T1, L20)

Exposure Routes:

>> Serious local effects by all routes of exposure.

>> Oral (L2) ; inhalation (L2) ; dermal (L2)

Inhalation Exposure

>> Cough. Burning sensation. Sore throat. Shortness of breath. Further see Ingestion.

Skin Exposure

>> Redness. Pain. Skin burns.

Eye Exposure

>> Redness. Pain. Burns.

Ingestion Exposure

>> Metallic taste. Sore throat. Severe thirst. Abdominal pain. Nausea. Vomiting. Diarrhoea. Muscle cramps. Convulsions. Increased heart rate. Shock or collapse. Paralysis.

>> Exposure to lower levels of arsenic can cause nausea and vomiting, decreased production of red and white blood cells, abnormal heart rhythm, and damage to blood vessels.

Adverse Effects:

An adverse effect is an undesired harmful effect resulting from a medical treatment or other intervention.

>> Neurotoxin - Sensorimotor

>> Occupational hepatotoxin - Secondary hepatotoxins: the potential for toxic effect in the occupational setting is based on cases of poisoning by human ingestion or animal experimentation.

>> Aplastic anemia - The presence of increased methemoglobin in the blood; the compound is classified as primary toxic effect.

>> Reproductive Toxin - A chemical that is toxic to the reproductive system, including defects in the progeny and injury to male or female reproductive function. Reproductive toxicity includes developmental effects. See Guidelines for Reproductive Toxicity Risk Assessment.

>> IARC Carcinogen - Class 1: International Agency for Research on Cancer classifies chemicals as established human carcinogens.

>> NTP Carcinogen - Known to be a human carcinogen.

>> ACGIH Carcinogen - Confirmed Human.

Toxicity Data:

>> LD50: 48 mg/kg (Oral, Rat) (T14) LD50: 8 mg/kg (Intravenous, Rabbit) (T52) LD50 in rabbits is 6 mg/kg (0.006 g/kg).

Minimum Risk Level:

The minimal risk level (MRL) is an estimate of the amount of a chemical a person can eat, drink, or breathe each day without a detectable risk to health

>> Acute Oral: 0.005 mg/kg/day (L134) Chronic Oral: 0.0003 mg/kg/day (L134) Chronic Inhalation: 0.01 mg/m3 (L134)

Treatment:

Treatment when exposed to toxin

>> Arsenic poisoning can be treated by chelation therapy, using chelating agents such as dimercaprol, EDTA or DMSA. Charcoal tablets may also be used for less severe cases. In addition, maintaining a diet high in sulfur helps eliminate arsenic from the body. (L20)

Non-Human Toxicity Excerpts:

>> PREGNANT RATS WERE INJECTED INTRAPERITONEALLY WITH 30 MG/KG ARSENIC ACID ON 9TH DAY OF GESTATION. MICROSCOPIC CHANGES OBSERVED INCLUDED NECROSIS IN THE NEUROECTODERM & THE MESODERM OF THE EMBRYO 4 HR AFTER TREATMENT. AT 6 HR LATER, CELL NECROSIS INCREASED IN THE NEUROECTODERM & THE MESODERM. HOWEVER, IN THE SURFACE ECTODERM & THE ENDODERM CELL NECROSIS INCREASED VERY LITTLE. 12 HR AFTER TREATMENT, ABNORMAL MITOTIC CELLS WITH VESICULATION OF THE ENDOPLASMIC RETICULA, ABNORMAL INTERPHASE CELLS CHARACTERIZED BY THE RING SHAPED NUCLEOLI IN THE NUCLEUS. ENLARGEMENT OF CISTERNAI OF ENDOPLASMIC RETICULA & THE NUCLEAR ENVELOPE WERE OBSERVED IN THE NEUROECTODERM & THE MESODERM. 24 HR LATER NEUROLATION WAS STOPPED AND THE V-SHAPED NEURAL FOLD REMAINED. THE SOMITE FORMATION WAS RETARDED. SOME OF THE SURVIVING CELLS CONTAINED PHAGOCYTIC VESICLES IN THE CYTOPLASM, BUT NO OTHER ANOMALIES WERE OBSERVED.

Non-Human Toxicity Values:

>> LD50 Rat oral 48 mg/kg

12. Ecological Information

ICSC Environmental Data:

>> The substance is very toxic to aquatic organisms. The substance may cause long-term effects in the aquatic environment.

13. Disposal Considerations

Spillage Disposal

>> Evacuate danger area! Consult an expert! Personal protection: complete protective clothing including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable plastic containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

Disposal Methods

>> SRP: At the time of review, criteria for land treatment or burial (sanitary landfill) disposal practices are subject to significant revision. Prior to implementing land disposal of waste residue (including waste sludge), consult with environmental regulatory agencies for guidance on acceptable disposal practices.

>> Heavy metals will react with arsenic acid to yield insoluble precipitates. Metals which precipitate arsenic acid include magnesium, lead, calcium, and iron (III). Arsenate precipitation with ferric hydroxide has been suggested to reduce its phytotoxicity. Its precipitation will also reduce its potential for leaching. Arsenate could be suitably precipitated with a slight excess of lime, ferric hydroxide, or magnesium. The best procedure is to stir ferric chloride, or a hydroxide of ferric, calcium, or magnesium into the waste arsenic acid and allow the mixture to stand 24 hr. Then, the supernatant water should be siphoned or decanted. An alternate procedure would be to precipitate arsenic with sulfide. Since the method requires more sophisticated handling, the precipitation with heavy metals is preferred. The sulfide precipitation requires decreasing the soln acidity to < pH 1 with 6 N-HCL /6 N-hydrochloric acid/, then saturating the soln with sodium sulfide or hydrogen sulfide. The precipitate and supernatant should be handled just as described for the ferric or other metal arsenate precipitates. Empty containers should be triple rinsed. "Triple rinse" means the flushing of containers three times, each time using a volume of the normal diluent equal to approx ten percent of the container's capacity, and adding the rinse liquid to the spray mixture or disposing of it by a method prescribed for disposing of the pesticide. Although the precipitation of arsenic acid could reduce its mobility in the environment and its toxicity, insufficient environmental testing is available to verify this conclusion. The precipitates should be considered hazardous. Recommendable methods: Precipitation, solidification, landfill. Not recommendable methods: Thermal destruction, discharge to sewer.

>> Arsenic acid is a poor candidate for incineration.

>> Chemical Treatability of Arsenic; Concentration Process: Chemical Precipitation; Chemical Classification: Metal; Scale of Study: Pilot Scale; Type of Wastewater Used: Domestic Wastewater + Pure Compound; Results of Study: 5ppm @ 4gpm @ pH= 7.0. Iron system-90% reduction; low lime system-80% reduction; high lime system-76% reduction; (3 coagulant systems were used; Iron system used 45 ppm as Fe of $Fe_2(SO_4)_3$ @ pH= 6.0. Low lime system used 20 ppm Fe of $Fe_2(SO_4)_3$ and 260 ppm of CaO @ pH= 10.0. High lime system used 600 ppm of CaO @ pH= 11.5. Chemical coagulation was followed by multimedia filtration). /Arsenic cmpd/

>> Chemical Treatability of Arsenic; Concentration Process: Chemical Precipitation; Chemical Classification: Metal; Scale of Study: Full Scale Continuous Flow; Type of Wastewater Used: Domestic Wastewater; Results of Study: Effluent character (ppb): 2.5, 56% reduction with lime; 3.3, 24% reduction with lime; (lime dose of 350-400 ppm as calcium oxide @ pH= 11.3). /Arsenic cmpd/

14. Transport Information

DOT

Arsenic acid
6.1
UN Pack Group: I
Reportable Quantity of 1 lb or 0

IATA

Arsenic acid
6.1,
UN Pack Group: I

15. Regulatory Information

Federal Drinking Water Standards:

Federal drinking water standards (e.g. maximum containment level (MCL)) for this chemical. These standards are legally enforceable.

>> 10 ug/L /Arsenic/

Clean Water Act Requirements:

The Clean Water Act (CWA) of 1972 establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under CWA, the U.S. Environmental Protection Agency (EPA) developed the Toxic Pollutant List (40 CFR Part 401.15) and the Priority Pollutant List (40 CFR Part 423, Appendix A). These lists are to be used by EPA and States to develop the Effluent Guidelines regulations and ensure water quality criteria and standards.

>> Toxic pollutant designated pursuant to section 307(a)(1) of the Federal Water Pollution Control Act and is subject to effluent limitations. /Arsenic & cmpd/

Regulatory Information

The Australian Inventory of Industrial Chemicals

>> Chemical: Arsenic acid (H3AsO4)

REACH Registered Substance

>> Status: Active Update: 27-01-2022 https://echa.europa.eu/registration-dossier/-/registered-dossier/14118

REACH Restricted Substance

>> Restricted substance: Arsenic acid

>> EC: 231-901-9

REACH Substances of Very High Concern (SVHC)

>> Substance: Arsenic acid

>> EC: 231-901-9

>> Date of inclusion: >19-Dec-2011

>> Reason for inclusion: Carcinogenic (Article 57a)

New Zealand EPA Inventory of Chemical Status

>> Arsenic acid: Does not have an individual approval but may be used under an appropriate group standard

16. Other Information

Toxic Combustion Products:

Toxic products (e.g., gases and vapors) produced from the combustion of this chemical.

>> Produces arsine gas.

Other Safety Information

Chemical Assessment

>> Evaluation - Water soluble arsenic compounds

>> IMAP assessments - Arsenic pentoxide and arsenic acid: Human health tier II assessment

"The information provided is believed to be accurate but is not comprehensive and should be used as a reference. It reflects our current knowledge and is intended for safety guidance related to the product. This document does not constitute a warranty of the product's properties. Ionz is not responsible for any damages resulting from handling or contact with the product incorrectly."