SAFETY DATA SHEET

Updated on 26/09/2024

1. Material Identification

Product Name : Calcium arsenate
Catalog Number : io-1901
CAS Number : 7778-44-1
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 (81.5%): Toxic if swallowed or if inhaled [Danger Acute toxicity, oral; acute toxicity, inhalation]

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

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

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

>> H400 (96.3%): 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, P261, P264, P270, P271, P273, P280, P301+P316, P304+P340, P316, P318, P321, P330, P391, P403+P233, P405, and P501

Health Hazards:

>> This material is extremely toxic; the probable oral lethal dose for humans is 5-50 mg/kg, or between 7 drops and 1 teaspoonful for a 150 lb. person. It is an irritant to eyes, respiratory tract, mouth and stomach. Damage to kidneys, liver and the nervous system have been reported. (Non-Specific -- Arsenic) Chronic exposure can cause bone marrow damage, often leading to aplastic anemia. There is epidemiological evidence that chronic ingestion of arsenic compounds causes a predisposition to skin cancers. (EPA, 1998)

ERG 2024, Guide 151 (Calcium arsenate)

>> Highly toxic, may be fatal if inhaled, ingested or absorbed through skin.

>> 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.

>> Fire may produce irritating or poisonous gases. When heated to decomposition, calcium arsenate produces toxic fumes of arsenic. Avoid heat. Hazardous polymerization may not occur. (EPA, 1998)

ERG 2024, Guide 151 (Calcium arsenate)

>> Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

>> Containers may explode when heated.

>> Runoff may pollute waterways.

>> Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.

3. Composition/Information On Ingredients

Chemical name : Calcium arsenate
CAS Number : 7778-44-1
Molecular Formula : As2Ca3O8
Molecular Weight : 398.0700 g/mol

4. First Aid Measures

First Aid:

>> Warning: Effects usually appear within 30 minutes of exposure but may be delayed for several hours. Caution is advised.

>> Signs and Symptoms of Acute Calcium Arsenate Exposure: Hypotension (low blood pressure), tachycardia (rapid heart rate), dehydration, intense thirst, difficulty swallowing, vomiting, abdominal pain, and diarrhea are among the first signs and symptoms noticed following acute calcium arsenate exposure. Headache, conjunctivitis (red, inflamed eyes), runny nose, and lacrimation (tearing) are also common. Garlic odor of breath and feces may be noted. Cardiovascular effects include shock, tachycardia (rapid heart rate), ventricular fibrillation, and other cardiac abnormalities. Pulmonary edema may occur. Altered mental status, seizures, and delirium are further complications of calcium arsenate exposure. Intense muscle cramping is common. Exposure to airborne dust is generally accompanied by irritation of exposed skin, eyes, and mucous membranes.

>> Emergency Life-Support Procedures: Acute exposure to calcium arsenate may require decontamination and life support for the victims. Emergency personnel should wear protective clothing appropriate to the type and degree of contamination. Air-purifying or supplied-air respiratory equipment should also be worn, as necessary. Rescue vehicles should carry supplies such as plastic sheeting and disposable plastic bags to assist in preventing spread of contamination.

>> Inhalation Exposure:

>> 1. Move victims to fresh air. Emergency personnel should avoid self-exposure to calcium arsenate.

>> 2. Evaluate vital signs including pulse and respiratory rate, and note any trauma. If no pulse is detected, provide CPR. If not breathing, provide artificial respiration. If breathing is labored, administer oxygen or other respiratory support.

>> 3. RUSH to a health care facility!

>> 4. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.

>> Dermal/Eye Exposure:

>> 1. Remove victims from exposure. Emergency personnel should avoid self- exposure to calcium arsenate.

>> 3. Remove contaminated clothing as soon as possible.

>> 4. If eye exposure has occurred, eyes must be flushed with lukewarm water for at least 15 minutes.

>> 5. THOROUGHLY wash exposed skin areas with soap and water.

>> 6. RUSH to a health care facility!

>> 7. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.

>> Ingestion Exposure:

>> 1. Evaluate vital signs including pulse and respiratory rate, and note any trauma. If no pulse is detected, provide CPR. If not breathing, provide artificial respiration. If breathing is labored, administer oxygen or other respiratory support.

>> 2. RUSH to a health care facility!

>> 3. Obtain authorization and/or further instructions from the local hospital for administration of an antidote or performance of other invasive procedures.

>> 4. Vomiting may be induced with syrup of Ipecac. If elapsed time since ingestion of calcium arsenate is unknown or suspected to be greater than 30 minutes, do not induce vomiting and proceed to Step

>> 5.Ipecac should not be administered to children under 6 months of age.Warning: Ingestion of calcium arsenate may result in sudden onset of seizures or loss of consciousness. Syrup of Ipecac should be administered only if victims are alert, have an active gag-reflex, and show no signs of impending seizure or coma. If ANY uncertainty exists, proceed to Step

>> 5.The following dosages of Ipecac are recommended: children up to 1 year old, 10 mL (1/3 oz); children 1 to 12 years old, 15 mL (1/2 oz); adults, 30 mL (1 oz). Ambulate (walk) the victims and give large quantities of water. If vomiting has not occurred after 15 minutes, Ipecac may be readministered. Continue to ambulate and give water to the victims. If vomiting has not occurred within 15 minutes after second administration of Ipecac, administer activated charcoal.

>> 5. Activated charcoal may be administered if victims are conscious and alert. Use 15 to 30 g (1/2 to 1 oz) for children, 50 to 100 g (1-3/4 to 3-1/2 oz) for adults, with 125 to 250 mL (1/2 to 1 cup) of water.

>> 6. Promote excretion by administering a saline cathartic or sorbitol to conscious and alert victims. Children require 15 to 30 g (1/2 to 1 oz) of cathartic; 50 to 100 g (1-3/4 to 3-1/2 oz) is recommended for adults. (EPA, 1998)

ERG 2024, Guide 151 (Calcium arsenate)

>> 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.

>> 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 and then wash skin with water and soap. Seek medical attention if you feel unwell.

Eye First Aid

>> Rinse with plenty of water (remove contact lenses if easily possible). Refer for medical attention.

Ingestion First Aid

>> Rinse mouth. Refer immediately for medical attention.

5. Fire Fighting Measures

>> Stay upwind; keep out of low areas. Wear self-contained (positive pressure if available) breathing apparatus and full protective clothing.

>> Not flammable. For small fires, use dry chemical, water spray, or foam. For large fires, use water spray, fog, or foam. (EPA, 1998)

>> 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 151 [Substances - Toxic (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 151 (Calcium arsenate)

>> 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.

>> Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum with specialist equipment or carefully sweep into containers. Carefully collect remainder. Then store and dispose of according to local regulations.

Accidental Release Measures

Public Safety: ERG 2024, Guide 151 (Calcium arsenate)

>> 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.

Spill or Leak: ERG 2024, Guide 151 (Calcium arsenate)

>> 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.

>> Cover with plastic sheet to prevent spreading.

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

>> DO NOT GET WATER INSIDE CONTAINERS.

>> For solids, prevent dust cloud and avoid inhalation of dust.

7. Handling And Storage

Safe Storage:

>> Separated from acids and food and feedstuffs. Well closed. Store in an area without drain or sewer access.

Storage Conditions:

>> Long-term storage in large, weatherproof, and sift proof storage bins or silos; small amounts may be disposed in a chemical waste landfill.

8. Exposure Control/ Personal Protection

>> Ca C 0.002 mg/m3 [15-minute] See Appendix A

>> 0.01 [mg/m3], as As

>> 0.01 [mg/m3], as As

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 151 (Calcium arsenate)

>> Small Fire

>> Dry chemical, CO2 or water spray.

>> Large Fire

>> Water spray, fog or regular foam.

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

>> Dike runoff from fire control for later disposal.

>> Avoid aiming straight or solid streams directly onto the product.

>> 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.

>> For massive fire, use unmanned master stream devices or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

Inhalation Risk:

>> A harmful concentration of airborne particles can be reached quickly when dispersed, especially if powdered.

Effects of Short Term Exposure:

>> The substance is irritating to the eyes and respiratory tract. The substance may cause effects on the gastrointestinal tract. This may result in severe gastroenteritis, loss of fluids and electrolytes, cardiac disorders and shock. Exposure far above the OEL could cause death. The effects may be delayed. Medical observation is indicated.

Effects of Long Term Exposure:

>> The substance may have effects on the skin, mucous membranes, peripheral nervous system, bone marrow and liver. This may result in pigmentation disorders, hyperkeratosis, perforation of the nasal septum, neuropathy, anaemia and liver impairment. This substance is carcinogenic to humans. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

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

>> PREVENT DISPERSION OF DUST! AVOID ALL CONTACT!

Inhalation Prevention

>> Use closed system, ventilation or breathing protection.

Skin Prevention

>> Protective gloves. Protective clothing.

Eye Prevention

>> Wear face shield or eye protection in combination with breathing protection.

Ingestion Prevention

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

Exposure Control and Personal Protection

Protective Clothing: ERG 2024, Guide 151 (Calcium arsenate)

>> 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.

Exposure Summary

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

>> TIH (Toxic Inhalation Hazard) - Term used to describe gases and volatile liquids that are toxic when inhaled. Some are TIH materials themselves, e.g., chlorine, and some release TIH gases when spilled in water, e.g., chlorosilanes. [ERG 2016].

9. Physical And Chemical Properties

Molecular Weight:

>> 398.07

Exact Mass:

>> 397.69028

Physical Description:

>> Calcium arsenate is a white powder. Slightly soluble in water. Toxic by inhalation and ingestion. Used as an insecticide and germicide.

>> COLOURLESS-TO-WHITE AMORPHOUS POWDER.

Color/Form:

>> White powder

Odor:

>> Odorless

Boiling Point:

>> Decomposes (NIOSH, 2024)

>> No boiling point at normal pressure; decomposes on heating

Melting Point:

>> 2651 °F (EPA, 1998)

>> 1455 °C

Solubility:

>> 0.01 % at 77 °F (NIOSH, 2024)

>> Solubility in water: very poor

Density:

>> 3.62 (EPA, 1998) - Denser than water; will sink

>> 3.62 g/cm³

Vapor Pressure:

>> 0 mmHg (approx) (NIOSH, 2024)

Stability/Shelf Life:

>> Moisture and carbon dioxide cause slow decomp to calcium carbonate and (phytotoxic) dicalcium hydrogen arsenate. In the presence of acids, water sol, strongly phytotoxic arsenic acid is produced.

Decomposition:

>> WHEN HEATED TO DECOMP IT EMITS TOXIC FUMES OF ARSENIC.

Corrosivity:

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

>> Slight corrosive action on metals

10. Stability And Reactivity

>> Slightly soluble in water.

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 and 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, not apoptosis. Arsenic is also a known carcinogen, especially in skin, liver, bladder and lung cancers. (T1, L20)

Exposure Routes:

>> The substance can be absorbed into the body by inhalation of its aerosol and by ingestion.

>> inhalation, skin absorption, ingestion, skin and/or eye contact

Inhalation Exposure

>> Cough. Sore throat.

Eye Exposure

>> Redness. Pain.

Ingestion Exposure

>> Abdominal pain. Diarrhoea. Vomiting. Burning sensation in the throat and chest. Headache. Weakness. Shock or collapse.

>> lassitude (weakness, exhaustion); gastrointestinal disturbance; peripheral neuropathy; skin hyperpigmentation, palmar planter hyperkeratoses; dermatitis; ; In Animals: liver damage [potential occupational carcinogen]

Target Organs:

Organs that are affected by exposure to this chemical. Information in this section reflects human data unless otherwise noted.

>> Eyes, respiratory system, liver, skin, central nervous system, lymphatic system

Cancer Sites:

The site in which cancer develops due to exposure to this compound. Cancers are casually referred to based on their primary sites (e.g., skin, lung, breasts, prostate, colon and rectum).

>> [lymphatic & lung cancer]

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: 20 mg/kg (Oral, Rat) (T14) LD50: 2400 mg/kg (Dermal, Rat) (T14)

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)

Human Toxicity Excerpts:

>> Vineyard workers in Germany and France have received heavy exposure to arsenical insecticides through inhalation of lead, calcium, and copper arsenate dust and through the ingestion of contaminated wine. The concurrence of arsenicism and lung cancer was observed in post mortem studies of those vineyard workers who showed cutaneous stigmata of arsenic toxicity at death: lung cancer occurred in 12 out of 27 men autopsied and liver hemangioendothelioma in two.

Non-Human Toxicity Excerpts:

>> GROUP OF ... 25 MALE BD IX RATS, 12 WK OLD ... GIVEN SINGLE INTRATRACHEAL INSTILLATION OF 0.1 ML OF ARSENIC CONTAINING MIXT (CALCIUM ARSENATE, COPPER SULFATE & CALCIUM HYDROXIDE) ... 10 ... DIED ... REMAINING 15 ... OBSERVED FOR ... (455-500 DAYS), & 9 ... /HAD/ LUNG TUMORS ... WORKING GROUP NOTED ... NO CU-CONTAINING CMPD ... TESTED ALONE.

Non-Human Toxicity Values:

>> LD50 Rat female oral 298 mg/kg

12. Ecological Information

ICSC Environmental Data:

>> This substance may be hazardous to the environment. Special attention should be given to aquatic organisms. This substance does enter the environment under normal use. Great care, however, should be taken to avoid any additional release, for example through inappropriate disposal.

13. Disposal Considerations

Spillage Disposal

>> Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Vacuum with specialist equipment or carefully sweep into containers. Carefully collect remainder. 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.

>> Recycling: Dissolve in a minimum amt of concentrated hydrochloric acid. Add to water until the appearance of white precipitate. Add 6 M-HCl /6 M-hydrochloric acid/ just to dissolve again. Saturate with hydrogen sulfide. After filtration, wash the precipitate and return to suppliers. Recommendable methods: Chemical treatment, solidification /hazardous waste/, landfill. Not recommendable methods: Thermal destruction, discharge to sewer.

>> Dissolve in HCl, precipitate as sulfide using H2S, dry, and return to supplier.

>> 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 Fe2(SO4)3 @ pH= 6.0. Low lime system used 20 ppm Fe of Fe2(SO4)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/

>> For more Disposal Methods (Complete) data for CALCIUM ARSENATE (6 total), please visit the HSDB record page.

14. Transport Information

DOT

Calcium arsenate
6.1
UN Pack Group: II
Reportable Quantity of 1 lb or 0

IATA

Calcium arsenate
6.1,
UN Pack Group: II

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.

>> Calcium arsenate is designated as a hazardous substance under section 311(b)(2)(A) of the Federal Water Pollution Control Act and further regulated by the Clean Water Act Amendments of 1977 and 1978. These regulations apply to discharges of this substance. This designation includes any isomers and hydrates, as well as any solutions and mixtures containing this substance.

Regulatory Information

REACH Registered Substance

>> Status: Cease Manufacture Update: 19-10-2010 https://echa.europa.eu/registration-dossier/-/registered-dossier/12244

REACH Restricted Substance

>> Restricted substance: Calcium arsenate

>> EC: 231-904-5

REACH Substances of Very High Concern (SVHC)

>> Substance: Calcium arsenate

>> EC: 231-904-5

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

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

REACH Restricted Substance

>> Restricted substance: Arsenic acid, calcium salt

>> EC: 233-287-8

16. Other Information

Toxic Combustion Products:

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

>> POISONOUS GASES MAY BE PRODUCED IN FIRE.

"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."