ionz

SAFETY DATA SHEET

Updated on 26/09/2024

1. Material Identification

Product Name : 1-Bromoproane
Catalog Number : io-1854
CAS Number : 106-94-5
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

>> H225 (100%): Highly Flammable liquid and vapor [Danger Flammable liquids]

>> H315 (100%): Causes skin irritation [Warning Skin corrosion/irritation]

>> H319 (100%): Causes serious eye irritation [Warning Serious eye damage/eye irritation]

>> H335 (87.5%): May cause respiratory irritation [Warning Specific target organ toxicity, single exposure; Respiratory tract irritation]

>> H336 (99.4%): May cause drowsiness or dizziness [Warning Specific target organ toxicity, single exposure; Narcotic effects]

>> H360 (95.7%): May damage fertility or the unborn child [Danger Reproductive toxicity]

>> H373 (99.9%): May causes damage to organs through prolonged or repeated exposure [Warning Specific target organ toxicity, repeated exposure]

Precautionary Statement Codes

>> P203, P210, P233, P240, P241, P242, P243, P260, P261, P264, P264+P265, P271, P280, P302+P352, P303+P361+P353, P304+P340, P305+P351+P338, P318, P319, P321, P332+P317, P337+P317, P362+P364, P370+P378, P403+P233, P403+P235, P405, and P501

NFPA 704 Diamond

NFPA Health Rating

>> 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA Fire Rating

>> 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Materials would not under normal conditions form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating could release vapor in sufficient quantities to produce hazardous atmospheres with air.

NFPA Instability Rating

>> 0 - Materials that in themselves are normally stable, even under fire conditions.

Health Hazards:

>> Irritating to the eyes, nose, throat, upper respiratory tract, and skin. (USCG, 1999)

>> Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:

>> HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks, etc.). Vapor explosion hazard indoors, outdoors or in sewers. Those substances designated with a (P) may polymerize explosively when heated or involved in a fire. Runoff to sewer may create fire or explosion hazard. Containers may explode when heated. Many liquids will float on water. (ERG, 2024)

>> Highly flammable. Gives off irritating or toxic fumes (or gases) in a fire. Vapour/air mixtures are explosive.

3. Composition/Information On Ingredients

Chemical name : 1-Bromoproane
CAS Number : 106-94-5
Molecular Formula : C3H7Br
Molecular Weight : 122.9900 g/mol

4. First Aid Measures

First Aid:

>> Call a physician.

>> EYES: Flush with running water for at least 15 minutes.

>> SKIN: Remove contaminated clothing and shoes, flush affected areas with water for at least 15 minutes.

>> INHALATION: Move to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.

>> INGESTION: Do nothing except keep victim warm. (USCG, 1999)

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

>> 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.

5. Fire Fighting Measures

>> Excerpt from ERG Guide 129 [Flammable Liquids (Water-Miscible / Noxious)]:

>> CAUTION: The majority of these products have a very low flash point. Use of water spray when fighting fire may be inefficient.

>> SMALL FIRE: Dry chemical, CO2, water spray or alcohol-resistant foam. Do not use dry chemical extinguishers to control fires involving nitromethane (UN1261) or nitroethane (UN2842).

>> LARGE FIRE: Water spray, fog or alcohol-resistant foam. Avoid aiming straight or solid streams directly onto the product. If it can be done safely, move undamaged containers away from the area around the fire.

>> FIRE INVOLVING TANKS, RAIL TANK CARS OR HIGHWAY TANKS: Fight fire from maximum distance or use unmanned master stream devices or monitor nozzles. 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. (ERG, 2024)

>> Use water spray, powder, alcohol-resistant foam, carbon dioxide. In case of fire: keep drums, etc., cool by spraying with water.

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 129 [Flammable Liquids (Water-Miscible / Noxious)]:

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

>> LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet).

>> 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)

Spillage Disposal:

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

>> Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations. Do NOT wash away into sewer.

7. Handling And Storage

Safe Storage:

>> Fireproof. Well closed. Separated from strong oxidants and strong bases. Store in an area without drain or sewer access. Ventilation along the floor.

Storage Conditions:

>> PRECAUTIONS FOR "CARCINOGENS": Storage site should be as close as practical to lab in which carcinogens are to be used, so that only small quantities required for ... expt need to be carried. Carcinogens should be kept in only one section of cupboard, an explosion-proof refrigerator or freezer (depending on chemicophysical properties ...) that bears appropriate label. An inventory ... should be kept, showing quantity of carcinogen & date it was acquired ... Facilities for dispensing ... should be contiguous to storage area. /Chemical Carcinogens/

8. Exposure Control/ Personal Protection

>> 0.1 [ppm]

>> 0.5 mg/m

TLV-TWA (Time Weighted Average)

>> 0.1 ppm [2013]

MAK (Maximale Arbeitsplatz Konzentration)

>> skin absorption (H); carcinogen category: 2

Inhalation Risk:

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

Effects of Short Term Exposure:

>> The substance is irritating to the eyes, skin and respiratory tract. The substance may cause effects on the central nervous system. This may result in lowering of consciousness.

Effects of Long Term Exposure:

>> The substance may have effects on the central nervous system and peripheral nervous system. This may result in impaired functions. This substance is possibly carcinogenic to humans. May cause toxicity to human reproduction or development.

Fire Prevention

>> NO open flames, NO sparks and NO smoking. Do NOT expose to heat, friction or shock.

Exposure Prevention

>> AVOID ALL CONTACT!

Inhalation Prevention

>> Use ventilation, local exhaust or breathing protection.

Skin Prevention

>> Protective gloves.

Eye Prevention

>> Wear safety spectacles.

Ingestion Prevention

>> Do not eat, drink, or smoke during work.

9. Physical And Chemical Properties

Molecular Weight:

>> 122.99

Exact Mass:

>> 121.97311

Physical Description:

>> 1-bromopropane appears as a colorless liquid. Slightly denser than water and slightly soluble in water. Flash point below 75 °F. When heated to high temperatures may emit toxic fumes. Special Hazards of Combustion Products: Toxic fumes of Hydrogen Bromide (USCG, 1999)

>> COLOURLESS LIQUID.

Color/Form:

>> Colorless liquid

Odor:

>> Sweet odor

Boiling Point:

>> 160 °F at 760 mmHg (USCG, 1999)

>> 71.0 °C

Melting Point:

>> -166 °F (USCG, 1999)

>> -110 °C

Flash Point:

>> 78 °F (USCG, 1999)

>> 22 °C c.c.

Solubility:

>> In water, 2,450 mg/L at 20 °C

>> Solubility in water, g/l at 20 °C: 2.5 (slightly soluble)

Density:

>> 1.3537 at 68 °F (USCG, 1999) - Denser than water; will sink

>> Relative density (water = 1): 1.35

Vapor Density:

>> 4.25 (Air = 1)

>> Relative vapor density (air = 1): 4.3

Vapor Pressure:

>> 274.01 mmHg (USCG, 1999)

>> Vapor pressure, kPa at 18 °C: 13.3

LogP:

>> log Kow = 2.10

>> 2.1

Stability/Shelf Life:

>> Stable under recommended storage conditions.

Autoignition Temperature:

>> 914 °F (USCG, 1999)

>> 490 °C

Decomposition:

>> Hazardous decomposition products formed under fire conditions - Carbon oxides, hydrogen bromide gas.

Viscosity:

>> 0.489 mPa.s at 25 °C

Refractive Index:

>> Index of refraction: 1.4343 at 20 °C/D

10. Stability And Reactivity

>> Highly flammable. Slightly soluble in water.

>> Highly Flammable

11. Toxicological Information

Toxicity Summary:

>> IDENTIFICATION AND USE: 1-Bromopropane (1-BP) is a colorless liquid. 1-BP is used primarily as a solvent cleaner in vapor and immersion degreasing operations to clean optics, electronics, and metals and as a solvent vehicle in industries using aerosol-applied adhesives, such as foam cushion manufacturing. HUMAN STUDIES: Occupational

exposure to 1-BP has been linked to neurological illnesses. Exposure to 1-BP could adversely affect peripheral nerves or/and the central nervous system. A 43-year-old male industrial worker developed muscle weakness, pain, numbness, and gait disturbance. Neurological examination indicated sensory ataxic neuropathy associated with mild impairment of upper motor neurons. He had used 1-BP as a cleaning agent for metal parts at his workplace without appropriate protection. Another case study reported that a 19-year-old male experienced weakness of the lower extremities and the right hand, numbness, and difficulty swallowing and urinating after 2 months of occupational exposure to a degreasing solvent based on 1-BP. 1-BP is cytotoxic but not corrosive, based on results from a cultured reconstructed human epidermal model (EpiDerm Skin Corrosivity Test). 1-BP can induce DNA damage in vitro in human leukocytes. ANIMAL STUDIES: 1-BP did not produce cutaneous reactions in guinea pigs attributable to skin sensitization. Inhalation exposure to 1-BP caused skin tumors in male rats, large intestine tumors in female and male rats, and lung tumors in female mice. Also noted was that 1-BP, either directly or via reactive metabolites, caused molecular alterations that typically are associated with carcinogenesis, including genotoxicity, oxidative stress, and glutathione depletion. It is unclear whether induction of immunotoxicity by 1-BP plays a role in tumor development. 1-BP caused immunosuppression in rodents. In particular, it reduced the numbers of T cells and T-cell subpopulations. In addition, there is evidence that 1-BP caused an inflammatory response. In rats, exposure to 1-BP did not affect memory function or motor coordination but muscle strength decreased dose-dependently. Dose-dependent increases in spontaneous locomotor activity and open-field behavior indicated that 1-BP has excitatory effects on the CNS of male rats. Rats exposed at 1000 and 1500 ppm 1-BP for 4 to 7 weeks exhibited decreases in body weight and motor nerve conduction velocities, increased distal latency of peripheral nerves, and neuronal dysfunction in the dentate gyrus of the brain. In two-generation study, 7-week-old rats were exposed 6 hours/day, 7 days/week for 70 days prior to mating at 0, 100, 250, 500, or 750 ppm 1-BP. Females were not exposed on postnatal day 0 to 4 and only they, not their litters, were exposed during postnatal days 5 to 21. F1 rats began direct exposure at weaning. Dose-related increases in estrous cycle length at >/=250 ppm, and follicular cysts and interstitial hyperplasia of ovaries at 500 ppm were observed in F0 and F1 females. Reduced fertility and litter size was observed in the F0 and F1 generations at >/=250 ppm. Prenatal 1-BP exposure in dams can cause delayed adverse effects on excitability of pyramidal cells in the hippocampal CA1 subfield of offspring. 1-BP was mutagenic with or without metabolic activation toward Salmonella typhimurium tester strains TA1535 and TA100 when tested in a closed system, but it was not mutagenic toward strains TA1537, TA1538, or TA98. However in other studies, 1-BP was not mutagenic in either of two independent bacterial mutagenicity assays, each conducted with and without metabolic activation. Bacterial strains tested included Salmonella typhimurium strains TA97, TA98, TA100, and TA1535, and Escherichia coli strain WP2 uvrA/pKM101. 1-BP was not mutagenic in vivo when tested in mice and rats.

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).

>> 1-Bromopropane is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity from studies in experimental animals.

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).

IARC Carcinogenic Agent

>> 1-Bromopropane

IARC Carcinogenic Classes

>> Group 2B: Possibly carcinogenic to humans

IARC Monographs

>> Volume 115: (2018) Some Industrial Chemicals

>> Not listed by IARC.

Health Effects:

>> Skin irritation if contacts skin, redness and itching of skin and eyes. Acute exposure may lead to coughing, shortness of breath, headache, nausea, vomiting. Chronic exposure can lead to damage of the blood, liver and CNS. Neurotoxicity can arise due to chronic exposure through inhalation or skin. Human cases of 1-bromopropane (1-BP) toxicity exhibit ataxic gait and cognitive dysfunction, whereas rat studies showed pyknotic shrinkage in cerebellar Purkinje cells and electrophysiological changes in the hippocampus. Inhalation exposure to 1-bromopropane causes skin tumors in male rats, large intestine tumors in female and male rats, and lung tumors in female mice. 1-bromopropane, either directly or via reactive metabolites, can cause molecular alterations that typically are associated with carcinogenesis, including genotoxicity, oxidative stress, and glutathione depletion. Hepatotoxicity and reproductive toxicity have been noted in rodent studies.

Exposure Routes:

>> The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion.

>> Oral (L626) ; inhalation (L626) ; dermal (L626)

Inhalation Exposure

>> Cough. Sore throat. Dizziness. Drowsiness.

Skin Exposure

>> MAY BE ABSORBED! Redness. See Inhalation.

Eye Exposure

>> Redness. Pain.

Ingestion Exposure

>> See Inhalation.

>> Reported symptoms to overexposure include confusion, dysarthria, dizziness, paresthesias, and ataxia; unusual fatigue and headaches, development of arthralgias, visual disturbances (difficulty focusing), paresthesias, and muscular twitching. Symptoms may persist over one year after termination of exposure. Vapors may cause dizziness and suffocation. Inhalation of high concentrations may affect behavior/central nervous system (CNS depression) characterized by nausea, headache, dizziness, somnolence, unconsciousness and coma. It may also cause liver and kidney damage, lung injury, weight loss/ anorexia, bone marrow changes, and blood abnormalities.

Target Organs:

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

>> Cancer, Neurological (Nervous System)

Adverse Effects:

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

>> Neurotoxin - Acute solvent syndrome

>> 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.

>> 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 3: Chemicals are not classifiable by the International Agency for Research on Cancer.

>> NTP Carcinogen - Reasonably anticipated to be a human carcinogen.

>> ACGIH Carcinogen - Confirmed Animal.

Toxicity Data:

>> LC50 (rat) =253,000 mg/m3/30 min

Treatment:

Treatment when exposed to toxin

>> EYES: irrigate opened eyes for several minutes under running water. INGESTION: do not induce vomiting. Rinse mouth with water (never give anything by mouth to an unconscious person). Seek immediate medical advice. SKIN: should be treated immediately by rinsing the affected parts in cold running water for at least 15 minutes, followed by thorough washing with soap and water. If necessary, the person should shower and change contaminated clothing and shoes, and then must seek medical attention. INHALATION: supply fresh air. If required provide artificial respiration.

Interactions:

>> 1-Bromopropane (1-BP) has been used as an alternative for fluoride compounds and 1-BP intoxication may involve lung, liver, and central neural system (CNS). Our previous studies showed that 1-BP impaired memory ability by compromising antioxidant cellular defenses. Melatonin is a powerful endogenous antioxidant, and the objective of this study was to explore the therapeutic role of melatonin in the treatment of 1-BP intoxication. Rats were intragastrically treated with 1-BP with or without melatonin, and then sacrificed on 27th day after 1-BP administration. The Morris water maze (MWM) test was used to evaluate the spatial learning and memory ability of the experimental animals, and NeuN staining was performed to assess neuron loss in hippocampus. We found that rats treated with 1-BP spent more time and swam longer distance before landing on the hidden platform with a comparable swimming speed, which was markedly mitigated by the pretreatment with melatonin in a concentration-dependent manner. In addition, 1-BP-induced notable decrease in neuron population in hippocampus by promoting apoptosis, and melatonin pretreatment attenuated those

changes in brain. The GSH/GSSG ratio was proportionately decreased and heme oxygenase 1 was increased in the rats exposed to 1-BP, and administration of melatonin restored them. Meanwhile, MDA, the level of lipid peroxidation product, was significantly increased upon exposed to 1-BP, which was significantly attenuated by melatonin pretreatment, indicating that administration of 1-BP could interfere with redox homeostasis of brain in rat, and such 1-BP-induced biomedical changes were reversed by treatment with melatonin. We conclude that treatment with melatonin attenuates 1-BP-induced CNS toxicity through its ROS scavenging effect.

Antidote and Emergency Treatment:

>> Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. /Halogenated aliphatic hydrocarbons and related compounds/

Human Toxicity Excerpts:

>> /SIGNS AND SYMPTOMS/ Propyl bromide has a /CNS depressant/ action ...

Non-Human Toxicity Excerpts:

>> /LABORATORY ANIMALS: Acute Exposure/ The dermal toxicity of 1-BP was investigated in Sprague-Dawley rats at a dose of 2000 mg/kg covered by a semi-occlusive dressing for 24 hours. There was no cutaneous reaction to 1-BP and there were no deaths or treatment-related effects.

Non-Human Toxicity Values:

>> LD50 Mouse ip 2.5 g/kg

National Toxicology Program Studies:

Reports from the National Toxicology Program, an interagency program supported by three government agencies (NIH, FDA, and CDC) within the Department of Health and Human Services. This program plays a critical role in generating, interpreting, and sharing toxicological information about chemicals of public health concerns.

>> Groups of 50 male and 50 female mice were exposed to 1-bromopropane vapor at concentrations of 0, 62.5, 125, or 250 ppm, 6 hours plus T90 (10 minutes) per day, 5 days per week for 105 weeks. Survival of exposed groups was similar to that of the chamber controls. Mean body weights of all exposed groups were similar to those of the chamber controls throughout the study. In the females, there were increased incidences of alveolar/bronchiolar adenoma, alveolar/bronchiolar carcinoma, and alveolar/bronchiolar adenoma or carcinoma (combined); the incidences of alveolar/bronchiolar adenoma or carcinoma (combined) were significantly increased in all exposed groups of females. There were significantly increased incidences of cytoplasmic vacuolization of the bronchiolar epithelium in all exposed male groups and regeneration of the bronchiolar epithelium in all exposed groups of males and females. In the nose, there were significantly increased incidences of cytoplasmic vacuolization of the respiratory epithelium in all exposed groups of males and in 125 and 250 ppm females. There were significantly increased incidences of respiratory epithelial hyperplasia in all exposed female groups and in 62.5 and 250 ppm males. There were significantly increased incidences of respiratory metaplasia of olfactory epithelium in 62.5 and 125 ppm males and 125 and 250 ppm females. There were significantly increased incidences of cytoplasmic vacuolization of respiratory epithelium in the larynx and trachea of all exposed male groups and in the trachea of 62.5 and 125 ppm females.

12. Ecological Information

Resident Soil (mg/kg)

>> 1.60e+00

Industrial Soil (mg/kg)

>> 7.10e+00

Resident Air (ug/m3)

>> 7.60e-01

Industrial Air (ug/m3)

>> 3.30e+00

Tapwater (ug/L)

>> 1.50e+00

MCL (ug/L)

>> 8.0E+01(G)

Risk-based SSL (mg/kg)

>> 4.60e-04

Inhalation Unit Risk (ug/m3)-1

>> 3.7e-06

Chronic Inhalation Reference Concentration (mg/m3)

>> 1.00e-01

Volatile

>> Volatile

Mutagen

>> Mutagen

Fraction of Contaminant Absorbed in Gastrointestinal Tract

>> 1

Soil Saturation Concentration (mg/kg)

>> 9.66e+02

ICSC Environmental Data:

>> The substance is harmful to aquatic organisms.

13. Disposal Considerations

Spillage Disposal

>> Remove all ignition sources. Evacuate danger area! Consult an expert! Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations. Do NOT wash away into sewer.

Disposal Methods

>> SRP: Recycle any unused portion of the material for its approved use or return it to the manufacturer or supplier. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in air, soil or water; effects on animal, aquatic and plant life; and conformance with environmental and public health regulations. If it is possible or reasonable use an alternative chemical product with less inherent propensity for occupational harm/injury/toxicity or environmental contamination.

>> Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material; Contaminated packaging: Dispose of as unused product.

>> PRECAUTIONS FOR "CARCINOGENS": There is no universal method of disposal that has been proved satisfactory for all carcinogenic compounds & specific methods of chem destruction ... published have not been tested on all kinds of carcinogen-containing waste. ... summary of avail methods & recommendations ... /given/ must be treated as guide only. /Chemical Carcinogens/

>> PRECAUTIONS FOR "CARCINOGENS": ... Incineration may be only feasible method for disposal of contaminated laboratory waste from biological expt. However, not all incinerators are suitable for this purpose. The most efficient type ... is probably the gas-fired type, in which a first-stage combustion with a less than stoichiometric air:fuel ratio is followed by a second stage with excess air. Some ... are designed to accept ... aqueous & organic-solvent solutions, otherwise it is necessary ... to absorb soln onto suitable combustible material, such as sawdust. Alternatively, chem destruction may be used, esp when small quantities ... are to be destroyed in laboratory. /Chemical Carcinogens/

>> For more Disposal Methods (Complete) data for 1-Bromopropane (7 total), please visit the HSDB record page.

14. Transport Information

DOT

1-Bromoproane
3
UN Pack Group: II

IATA

1-Bromoproane
3,
UN Pack Group: II

15. Regulatory Information

Regulatory Information

The Australian Inventory of Industrial Chemicals

>> Chemical: Propane, 1-bromo-

REACH Registered Substance

>> Status: Active Update: 15-09-2022 https://echa.europa.eu/registration-dossier/-/registered-dossier/15004

>> Status: Active Update: 25-06-2020 https://echa.europa.eu/registration-dossier/-/registered-dossier/31310

>> Status: Active Update: 07-07-2015 https://echa.europa.eu/registration-dossier/-/registered-dossier/6200

>> Status: Active Update: 29-08-2014 https://echa.europa.eu/registration-dossier/-/registered-dossier/6692

REACH Substances of Very High Concern (SVHC)

>> Substance: 1-bromopropane (n-propyl bromide)

>> EC: 203-445-0

>> Date of inclusion: >19-Dec-2012

>> Reason for inclusion: Toxic for reproduction (Article 57c)

New Zealand EPA Inventory of Chemical Status

>> Propane, 1-bromo-: Does not have an individual approval but may be used under an appropriate group standard

16. Other Information

Other Safety Information

Chemical Assessment

>> IMAP assessments - Propane, 1-bromo-: 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."