

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier**Product Name** CGAS(3)1**Other means of identification****Product Description** 1000 µg/mL Arsenic+3**Recommended use of the chemical and restrictions on use****Recommended Use** Laboratory chemicals.**Uses advised against** No information available**Details of the supplier of the safety data sheet****Company**Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073
web: www.inorganicventures.com**Emergency telephone number****Emergency Telephone Number**Chemtrec 1-800-424-9300 (North America)
Chemtrec +1 703-741-5970 (International)

2. HAZARDS IDENTIFICATION

GHS**Classification**

Carcinogenicity

Category 1A

Label Elements**Danger****Hazard statements**

May cause cancer

**Appearance** clear / colorless**Physical state** Liquid**Odor** Slight chlorine**Precautionary Statements - Prevention**Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

- Harmful to aquatic life with long lasting effects

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sodium hydroxide	1310-73-2	0.3
Arsenic trioxide	1327-53-3	0.13203

4. FIRST AID MEASURES**Description of first aid measures****General Advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. If symptoms persist, call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

Inhalation

Immediate medical attention is required. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration.

Ingestion

Immediate medical attention is required. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person.

Protection of First-aiders

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed**Most Important Symptoms and Effects**

Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

Decomposition by contact with water may generate vapors which can be ignited by heat or open flame.

Special Exposure Hazards Arising from the Substance/Mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors

Explosion Data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures**Personal Precautions**

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment as required. Do not get in eyes, on skin, or on clothing.

Environmental precautions**Environmental precautions**

Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up**Methods for Cleaning up**

Dam up. Neutralise with lime milk; soda. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Precautions for safe handling**Handling**

Wear personal protective equipment. In case of insufficient ventilation, wear suitable respiratory equipment. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

Conditions for safe storage, including any incompatibilities**Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sodium hydroxide 1310-73-2	Ceiling: 2 mg/m ³	TWA: 2 mg/m ³	IDLH: 10 mg/m ³ Ceiling: 2 mg/m ³
Arsenic trioxide 1327-53-3	TWA: 0.01 mg/m ³	TWA: 10 µg/m ³	IDLH: 5 mg/m ³ Ceiling: 0.002 mg/m ³

Appropriate engineering controls**Engineering Measures**

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment**Eye Protection**

Tightly fitting safety goggles

Skin and Body Protection

Impervious clothing Boots Chemical resistant apron

Hand Protection

Impervious gloves

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If exposure limits are exceeded or irritation is experienced,

Hygiene Measures

NIOSH/MSHA approved respiratory protection should be worn
 Handle in accordance with good industrial hygiene and safety practice. Wear suitable gloves and eye/face protection. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties**Physical state**

Liquid

Appearance

clear / colorless

Odor

Slight chlorine

Property**Values****pH - VALUE 1**

No data available

Melting Point/Range

No data available

Boiling point / boiling range

100 °C

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Vapor pressure @20 °C (kPa)

No data available

Vapor density

No data available

Relative Density

No data available

Specific gravity - VALUE 1

No data available

Water solubility

Miscible

Partition coefficient: n-octanol/water

No data available

Autoignition temperature

No data available

Decomposition temperature

No data available

Dynamic viscosity - VALUE 1

No data available

Explosive Properties

No information available

Oxidizing Properties

No information available

Other information**VOC Content (%)**

No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to Avoid

None known.

Incompatible materials

Reducing agent

Hazardous decomposition products

Hydrogen chloride.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	Harmful by inhalation Toxic if swallowed Contains a known or suspected carcinogen May cause cancer
Inhalation	Harmful by inhalation.
Eye Contact	No data available.
Skin Contact	No data available.
Ingestion	Toxic if swallowed.

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium hydroxide - 1310-73-2	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-
Arsenic trioxide - 1327-53-3	= 20 mg/kg (Rat)	-	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenic effects

Chemical name	ACGIH	IARC	NTP	OSHA
Arsenic trioxide 1327-53-3	A1	Group 1	Known	X

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Target Organ Effects Respiratory system.

Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 15148 mg/kg

ATEmix (inhalation-dust/mist) 79.3 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium hydroxide 1310-73-2		45.4: 96 h Oncorhynchus mykiss mg/L LC50 static		
Arsenic trioxide 1327-53-3		135: 96 h Pimephales promelas mg/L LC50 18.8 - 21.4: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 1000: 96 h Oncorhynchus mykiss mg/L LC50 static		LC50 96 h = 0.96 mg/L (Daphnia magna) EC50 24 h 3.9 - 4.5 mg/L (Daphnia magna)

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Arsenic trioxide 1327-53-3	18.1

Other Adverse Effects**13. DISPOSAL CONSIDERATIONS**Waste treatment methods

Waste from Residues/Unused Products Dispose of in accordance with federal, state and local regulations

Contaminated Packaging Do not reuse empty containers.

Chemical name	California Hazardous Waste Status
Sodium hydroxide 1310-73-2	Toxic Corrosive
Arsenic trioxide 1327-53-3	Toxic

14. TRANSPORT INFORMATIONIMDG

14.1. UN-No UN3264

14.2. Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s

14.3. Transport hazard class(es) 8

14.4. Packing Group III

Description Not applicable

14.5. Marine Pollutant None

14.6. Special Provisions None

No information available Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID

14.1. UN-No UN3264

14.2. Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s

14.3. Hazard Class 8

14.4. Packing Group III

Description Not applicable

14.5. Environmental hazard None

14.6. Special Provisions None

ADR

14.1. UN-No UN3264

14.2. Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s

14.3. Hazard Class 8

14.4. Packing Group III

Description Not applicable

14.5. Environmental hazard None

14.6. Special Provisions None

ICAO

14.1. UN-No UN3264

14.2. Proper Shipping Name Corrosive liquid, acidic, inorganic, n.o.s

14.3. Hazard Class 8

14.4. Packing Group III

Description Not applicable

14.5. Environmental hazard None

14.6. Special Provisions None

IATA-DGR

14.1. UN-No UN3264

14.2. Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s

14.3. Transport hazard class(es) 8

14.4. Packing Group	III
Description	Not applicable
14.5. Environmental hazard	None
14.6. Special Provisions	None

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Arsenic trioxide - 1327-53-3	1327-53-3	0.13203	0.1

SARA 311/312 Hazard Categories

Acute health hazard	Not classified
Chronic Health Hazard	Not classified
Fire hazard	Not classified
Sudden Release of Pressure Hazard	No
Reactive Hazard	Not classified

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Sodium hydroxide 1310-73-2	1000 lb			X
Arsenic trioxide 1327-53-3	1 lb	X		X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Sodium hydroxide 1310-73-2	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Arsenic trioxide 1327-53-3	1 lb	1 lb	RQ 1 lb final RQ RQ 0.454 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical name	California Prop. 65
Arsenic trioxide - 1327-53-3	Carcinogen Developmental

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Sodium hydroxide 1310-73-2	X	X	X
Arsenic trioxide 1327-53-3	X	X	X

U.S. EPA Label Information**16. OTHER INFORMATION**

Revision Date 24-Mar-2021

Revision Note

No information available

Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of SDS