

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name CGAS(3)1

Product Description 1000 µg/mL Arsenic+3

Pure substance/mixture Mixture

Contains Arsenic trioxide

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Company

Inorganic Ventures
300 Technology Drive
Christiansburg, VA 24073
web: www.inorganicventures.com

1.4. Emergency telephone number

Chemtrec 1-800-424-9300 (North America)

Chemtrec +1 703-741-5970 (International)

Europe	See above
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

*Classification according to
Regulation (EC) No. 1272/2008 [CLP]*

GHS

Carcinogenicity	Category 1A - (H350)
Hazardous to the aquatic environment - chronic	Category 3 - (H412)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Product identifier
Contains Arsenic trioxide



Signal word

Danger

Hazard statements

H290 - May be corrosive to metals

H350 - May cause cancer

H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P390 - Absorb spillage to prevent material damage

P501 - Dispose of contents and container in accordance with local, regional, national, and international regulations as applicable

2.3. Other hazards

Other hazards

Causes mild skin irritation

No information available

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

Chemical name	EC No. (Index No.)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Hydrochloric acid	231-595-7 (017-002-00-2) (017-002-01-X)	7647-01-0	0.5	Acute Tox. 3 (H331) Skin Corr. 1A (H314) STOT SE 3 (H335)	No data available
Arsenic trioxide	215-481-4 (033-003-00-0) (033-002-00-5)	1327-53-3	0.13203	Acute Tox. 2 (H300) Skin Corr. 1B (H314) Carc. 1A (H350) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available

Full text of H- and EUH-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice

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

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.

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.

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.

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.

Self-protection of the first aider Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects Difficulty in breathing.

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

No information available

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. 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.

Advice for emergency responders

Ensure adequate ventilation.

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Take up mechanically, placing in appropriate containers for disposal.

6.4. Reference to other sections

See Section 12: ECOLOGICAL INFORMATION.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Ensure adequate ventilation.

Hygiene Measures

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany DFG	
Hydrochloric acid 7647-01-0	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	TWA: 1 ppm TWA: 2 mg/m³ STEL: 5 ppm STEL: 8 mg/m³	VLCT: 7.6 mg/m³ VLTC: 5 ppm	TWA-(VLA-ED): 5 ppm; TWA-(VLA-ED): 7.6 mg/m³; STEL (VLA-EC): 10 ppm; STEL (VLA-EC): 15 mg/m³;	TWA-MAK: 2 ppm; I(2); TWA-MAK: 3.0 mg/m³; I(2);	
Arsenic trioxide 1327-53-3	TWA: 0.01 mg/m³;	TWA: 0.1 mg/m³; STEL: 0.3 mg/m³;		TWA-(VLA-ED): 0.01 mg/m³;	Sk	
Chemical name	Italy MDLPS	Portugal	Netherlands	Finland	Denmark	
Hydrochloric acid 7647-01-0	TWA: 5 ppm TWA: 8 mg/m³	TWA (VLE-MP): 5 ppm; TWA (VLE-MP): 8 mg/m³; STEL (VLE-CD): 10 ppm; STEL (VLE-CD): 15 mg/m³; Ceiling (VLE-CM): 2 ppm;	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	STEL: 7.6 mg/m³ STEL: 5 ppm	Ceiling: 7 mg/m³ Ceiling: 5 ppm	
Arsenic trioxide 1327-53-3	TWA: 0.01 mg/m³;	TWA (VLE-MP): 0.01 mg/m³; inhalable fraction	TWA: 0.28 µg/m³;	TWA: 0.01 mg/m³;	TWA: 0.0028 mg/m³; STEL: 0.0056 mg/m³;	
Chemical name	Sweden	Austria	Switzerland	Poland	Norway	Ireland
Hydrochloric acid 7647-01-0	LLV: 2 ppm LLV: 3 mg/m³ Binding STLV: 4 ppm Binding STLV: 6 mg/m³	TWA-TMW: 5 ppm; TWA-TMW: 8 mg/m³; STEL-KZGW: 10 ppm (8 X 5 min); STEL-KZGW: 15 mg/m³ (8 X 5 min);	TWA-MAK: 2 ppm; TWA-MAK: 3 mg/m³; STEL-KZGW: 4 ppm; STEL-KZGW: 6 mg/m³;	NDSch: 10mg/m³ NDS: 5mg/m³	Ceiling: 5 ppm Ceiling 7 mg/m³	TWA: 8 mg/m³; TWA: 5 ppm; STEL: 10 ppm; STEL: 15 mg/m³;
Arsenic trioxide 1327-53-3		TWA-TMW: 0.01m g/m³; inhalable fraction STEL-KZGW: 0.04 mg/m³(4 x 15 min); inhalable fraction C	TWA-MAK: 0.01 mg/m³; inhalable dust Sk	TWA-NDS: 0.01 mg/m³; inhalable fraction	TWA: 0.005 mg/m³; inhalable fraction STEL: 0.015 mg/m³ (value calculated;except Arsenic hydride); inhalable fraction Sk	TWA: 0.01 mg/m³; STEL: 0.03 mg/m³ (calculated; except Arsine);

Chemical name	European Union	United Kingdom	France	Spain	Germany TRGS
Arsenic trioxide 1327-53-3			- urine (Metabolites of inorganic arsenic) - end of workweek		
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Arsenic trioxide 1327-53-3	3.2 million/µL Erythrocytes - red and white blood count () - not provided 3.8 million/µL Erythrocytes - red and				35 µg/L (urine - inorganic Arsenic plus methylated metabolites end of workweek)

	white blood count () - not provided 4000 Leukocytes/ μ L - red and white blood count () - not provided 13000 Leukocytes/ μ L - red and white blood count () - not provided 10 g/dL Hemoglobin - red and white blood count () - not provided 12 g/dL Hemoglobin - red and white blood count () - not provided 30 % Hematocrit - red and white blood count () - not provided 35 % Hematocrit - red and white blood count () - not provided 50 μ g/L - urine () - after end of work day, at the end of a work week/end of the shift				
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Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/Face Protection

Wear safety glasses with side shields (or goggles).

Hand Protection

Impervious gloves.

Skin and Body Protection

Impervious clothing. Boots. Chemical resistant apron.

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, NIOSH/MSHA approved respiratory protection should be worn.

Environmental Exposure Controls No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Appearance

clear / colorless

Odor

Slight chlorine

pH - VALUE 1

No data available

Melting point / melting range

No data available

Initial boiling point and boiling range

100 °C / 212 °F

Vapor pressure @20 °C (kPa)

No data available

Relative 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

VOC content

No information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

10.3. Possibility of hazardous reactions**Hazardous polymerization**

Hazardous polymerization does not occur.

Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Reducing agent

10.6. Hazardous decomposition products

Hydrogen chloride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute Toxicity

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.

The following ATE values have been calculated for the mixture

ATEmix (oral)	15,148.10 mg/kg
ATEmix (dermal)	99,999.00
ATEmix (inhalation-gas)	99,999.00
ATEmix (inhalation-dust/mist)	79.30 mg/l
ATEmix (inhalation-vapor)	99,999.00 mg/l
<u>Unknown acute toxicity</u>	

Component Information

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Sensitization No information available.

Mutagenic Effects No information available.

Carcinogenic effects

Chemical name	European Union
Arsenic trioxide	Carc. 1A

Reproductive Toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects

Chemical name	Algae/aquatic plants	Fish	Crustacea
Arsenic trioxide		LC50: =135mg/L (96h, Pimephales promelas) LC50: 18.8 - 21.4mg/L (96h, Oncorhynchus mykiss) LC50: >1000mg/L (96h, Oncorhynchus mykiss)	

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Arsenic trioxide	18.1

12.4. Mobility in soil**Mobility in soil**

No information available.

12.5. Results of PBT and vPvB assessment

No information available.

Chemical name	PBT and vPvB assessment
Hydrochloric acid	Not PBT/vPvB
Arsenic trioxide	PBT assessment does not apply

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. 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.

Other information

Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG

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

RID

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

ADR

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

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

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**National regulations****Occupational Illnesses (R-463-3, France)****Germany****TA Luft (German Air Pollution Control Regulation)****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following inventory lists: U.S.A. (TSCA), Europe (EINECS/ELINCS/NLP), Canada (DSL/NDSL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

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

Legend

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

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

SECTION 16: Other information

Full text of R-phrases referred to under sections 2 and 3

R34 - Causes burns

R45 - May cause cancer

R28 - Also very toxic if swallowed

R25 - Also toxic if swallowed

R20 - Also harmful by inhalation

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R23/25 - Also toxic by inhalation and if swallowed

Full text of any hazard and/or precautionary statements referred to under Sections 2-15

H300 - Fatal if swallowed

H314 - Causes severe skin burns and eye damage

H331 - Toxic if inhaled

H335 - May cause respiratory irritation

H350 - May cause cancer

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Revision date 11-Mar-2026

Reason for Revision Not applicable.

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet