

SAFETY DATA SHEET

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

Product identifier

Product Name 6020ICS-8A

Other means of identification

Product Description 18000 µg/mL: Cl; 3000 µg/mL: Ca; 2500 µg/mL: Fe, Na; 2000 µg/mL: C; 1000 µg/mL: Al, K, Mg, P, S; 20 µg/mL: Mo, Ti

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
Phone: 1(800) 669-6799
Email: info@inorganicventures.com

Emergency Telephone Number

Chemtrec 1-800-424-9300 (North America)
Chemtrec +1 703-741-5970 (International)

2. HAZARDS IDENTIFICATION

GHS

Classification

Acute toxicity - Inhalation (Gases)	Category 4
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 1A
Corrosive to metals	Category 1

Label Elements

Danger

Hazard statements

Harmful if inhaled
Causes severe skin burns and eye damage
May cause cancer
May be corrosive to metals

**Appearance** clear /yellow**Physical state** Liquid**Odor** Odorless**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
 Use only outdoors or in a well-ventilated area
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Keep only in original container

Precautionary Statements - Response**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician

Skin

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell
 Immediately call a POISON CENTER or doctor/physician

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

Spill

Absorb spillage to prevent material damage

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
- Harmful to aquatic life with long lasting effects

Other Information

1.3903 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Weight-%
Hydrogen chloride	7647-01-0	3.78
Aluminum Nitrate, Nonahydrate	7784-27-2	1.3903
Nitric acid	7697-37-2	0.7
Potassium nitrate	7757-79-1	0.25897

4. FIRST AID MEASURES

Description of first aid measures

Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin Contact	Wash skin with soap and water.
Inhalation	Remove to fresh air.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Most Important Symptoms and Effects	No information available.
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Indication of any immediate medical attention and special treatment needed

Notes to Physician	Treat symptomatically
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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 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	Ensure adequate ventilation.
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Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological Information.
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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.
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7. HANDLING AND STORAGE

Precautions for safe handling**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
Hydrogen chloride 7647-01-0	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m ³	IDLH: 45 ppm IDLH: 67 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³
Aluminum Nitrate, Nonahydrate 7784-27-2		(vacated) TWA: 2 mg/m ³	TWA: 2 mg/m ³
Nitric acid 7697-37-2	TWA: 2 ppm STEL: 4 ppm	TWA: 2 ppm TWA: 5 mg/m ³ (vacated) TWA: 2 ppm (vacated) TWA: 5 mg/m ³ (vacated) STEL: 4 ppm (vacated) STEL: 10 mg/m ³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m ³ STEL: 4 ppm STEL: 10 mg/m ³

Appropriate engineering controls

Engineering Measures Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Respiratory Protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid
Appearance	clear /yellow
Odor	Odorless
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

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

None under normal processing.

Conditions to Avoid

None known.

Incompatible materials

Bases Cyanides

Hazardous decomposition products

Nitrogen oxides (NOx).

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

Product does not present an acute toxicity hazard based on known information

Inhalation

No data available.

Eye Contact

No data available.

Skin Contact

No data available.

Ingestion

No data available.

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrogen chloride - 7647-01-0	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 1.68 mg/L (Rat) 1 h
Aluminum Nitrate, Nonahydrate - 7784-27-2	= 542.5 mg/kg (Rat)	-	-
Nitric acid - 7697-37-2	-	-	= 2500 ppm (Rat) 1 h
Potassium nitrate - 7757-79-1	= 3015 mg/kg (Rat)	> 5000 mg/kg (Rat)	> 0.527 mg/L (Rat) 4 h

Symptoms related to the physical, chemical and toxicological characteristics**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

This product when used in accordance with its intended use does not pose any carcinogenic hazard. However, if further processed may produce misting of Sulfuric acid which has been classified as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
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Hydrogen chloride 7647-01-0	A4 - Not Classifiable as a Human Carcinogen	Group 3 - Unclassifiable as to carcinogenicity in humans		Present
Aluminum Nitrate, Nonahydrate 7784-27-2		Group 2A - Probably carcinogenic to humans		Present
Nitric acid 7697-37-2		Group 1 - Carcinogenic to humans Group 2A - Probably carcinogenic to humans		Present
Potassium nitrate 7757-79-1		Group 2A - Probably carcinogenic to humans		Present

Reproductive Toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause disorder and damage to the. blood.

Aspiration hazard

No information available.

Numerical measures of toxicity - Product Information**Unknown acute toxicity**

1.3903 % of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral)	5422 mg/kg
ATEmix (inhalation-gas)	14902 ppm
ATEmix (inhalation-dust/mist)	11.2 mg/L
ATEmix (inhalation-vapor)	107.4 mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity****Ecotoxicity effects**

Contains -1E-05 % of components with unknown hazards to the aquatic environment

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Chemical name	Partition coefficient
Nitric acid 7697-37-2	-2.3

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
Hydrogen chloride 7647-01-0	Toxic Corrosive Reactive
Nitric acid 7697-37-2	Toxic Corrosive Ignitable
Potassium nitrate	Ignitable

7757-79-1

Reactive

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

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

15. REGULATORY INFORMATION**International Inventories**

TSCA Complies
DSL/NDL Complies

EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AIIC	Complies

Legend:*TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL - 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 %
Hydrogen chloride - 7647-01-0	7647-01-0	3.78	1.0
Nitric acid - 7697-37-2	7697-37-2	0.7	1.0
Potassium nitrate - 7757-79-1	7757-79-1	0.25897	1.0

SARA 311/312 Hazard Categories

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

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
Hydrogen chloride 7647-01-0	5000 lb			X
Nitric acid 7697-37-2	1000 lb			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
Hydrogen chloride 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ
Nitric acid 7697-37-2	1000 lb	1000 lb	RQ 1000 lb final RQ RQ 454 kg final RQ

U.S. State Regulations**California Proposition 65**

This product contains the following Proposition 65 chemicals:

Chemical name	California Proposition 65
Sulfuric acid - 7664-93-9	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Hydrogen chloride 7647-01-0	X	X	X
Aluminum Nitrate, Nonahydrate 7784-27-2	X		X
Nitric acid 7697-37-2	X	X	X
Potassium nitrate 7757-79-1	X	X	X

U.S. EPA Label Information

Difference between SDS and EPA Pesticide label

16. OTHER INFORMATION

Revision date 06-Jul-2026

Revision Note

No information available

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 SDS