

SAFETY DATA SHEET

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

1.1. Product identifier

Product Name 6020ICS-8A

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

Pure substance/mixture Mixture
Contains Hydrogen chloride

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

Acute toxicity - Inhalation (Gases)	Category 4 - (H332)
Hazardous to the aquatic environment - chronic	Category 3 - (H412)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Product identifier
Contains Hydrogen chloride

**Signal word**

Warning

Hazard statements

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H332 - Harmful if inhaled

H412 - Harmful to aquatic life with long lasting effects

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

P260 - Do not breathe dust, fume, gas, mist, vapors and spray

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P310 - Immediately call a POISON CENTER or doctor/physician

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

2.3. Other hazards

Other hazards

Causes mild skin irritation Harmful to aquatic life

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
Hydrogen chloride	231-595-7 (017-002-00-2) (017-002-01-X)	7647-01-0	3.78	Press. Gas Skin Corr. 1A (H314) Acute Tox. 3 (H331)	No data available
Aluminum Nitrate, Nonahydrate	-	7784-27-2	1.3903	Eye Dam. 1 (H318)	No data available
Nitric acid	231-714-2 (007-004-00-1) (007-030-00-3) (078-012-00-0)	7697-37-2	0.7	(EUH071) Skin Corr. 1A (H314) Ox. Liq. 3 (H272) Acute Tox. 3 (H331)	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**Inhalation**

Remove to fresh air.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes

and shoes.

Ingestion Clean mouth with water and drink afterwards plenty of water.

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

Most Important Symptoms and Effects Asthma-like and/ or skin allergy-like symptoms.

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

Ensure adequate ventilation.

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.

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	
Hydrogen chloride 7647-01-0	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 mg/m³;	TWA: 1 ppm; gas and aerosol mist TWA: 2 mg/m³; gas and aerosol mist STEL: 5 ppm; gas and aerosol mist STEL: 8 mg/m³; gas and aerosol mist	STEL-VLCT (restrictif): 5 ppm; STEL-VLCT (restrictif): 7.6 mg/m³;	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);	
Aluminum Nitrate, Nonahydrate 7784-27-2		TWA: 2 mg/m³; STEL: 6 mg/m³;	TWA-VME: 2 mg/m³;			
Nitric acid 7697-37-2	STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL-VLCT (indicatif): 1 ppm; STEL-VLCT (indicatif): 2.6 mg/m³;	STEL (VLA-EC): 1 ppm; STEL (VLA-EC): 2.6 mg/m³;		
Chemical name	Italy MDLPS	Portugal	Netherlands	Finland	Denmark	
Hydrogen chloride 7647-01-0	TWA: 5 ppm; TWA: 8 mg/m³; STEL: 10 ppm; STEL: 15 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: 5 ppm; STEL: 7.6 mg/m³;	STEL: 5 ppm; STEL: 8 mg/m³;	
Aluminum Nitrate, Nonahydrate 7784-27-2				TWA: 0.1 mg/m³;	TWA: 1 mg/m³; STEL: 2 mg/m³;	
Nitric acid 7697-37-2	STEL: 1 ppm; STEL: 2.6 mg/m³;	TWA (VLE-MP): 2 ppm; STEL (VLE-CD): 1 ppm; STEL (VLE-CD): 2.6 mg/m³;	STEL: 0.5 ppm; STEL: 1.3 mg/m³;	TWA: 0.5 ppm; TWA: 1.3 mg/m³; STEL: 1 ppm; STEL: 2.6 mg/m³;	STEL: 1 ppm; STEL: 2.6 mg/m³;	
Chemical name	Sweden	Austria	Switzerland	Poland	Norway	Ireland
Hydrogen chloride 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;	TWA-NDS: 5 mg/m³; STEL-NDSch: 10 mg/m³;	Ceiling: 5 ppm; Ceiling: 7 mg/m³;	TWA: 8 mg/m³; TWA: 5 ppm; STEL: 10 ppm; STEL: 15 mg/m³;
Aluminum Nitrate,					TWA: 2 mg/m³;	TWA: 2 mg/m³;

Nonahydrate 7784-27-2					STEL: 4 mg/m ³ (value calculated);	STEL: 6 mg/m ³ (calculated);
Nitric acid 7697-37-2	LLV: 0.5 ppm LLV: 1.3 mg/m ³ Binding STLV: 1 ppm Binding STLV: 2.6 mg/m ³	TWA-TMW: 1 ppm; TWA-TMW: 2.6 mg/m ³ ; STEL-KZGW: 1 ppm (); STEL-KZGW: 2.6 mg/m ³ (); Ceiling: 1 ppm; Ceiling: 2.6 mg/m ³ ;	TWA-MAK: 2 ppm; TWA-MAK: 5 mg/m ³ ; STEL-KZGW: 2 ppm; STEL-KZGW: 5 mg/m ³ ;	TWA-NDS: 1.4 mg/m ³ ; STEL-NDSch: 2.6 mg/m ³ ;	TWA: 2 ppm; TWA: 5 mg/m ³ ; STEL: 4 ppm (value calculated); STEL: 10 mg/m ³ (value calculated);	STEL: 1 ppm; STEL: 2.6 mg/m ³ ;

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

Long sleeved clothing.

Respiratory Protection

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

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 /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

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

None under normal processing.

Hazardous Reactions

None under normal processing.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Bases Cyanides

10.6. Hazardous decomposition products

Nitrogen oxides (NOx).

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute Toxicity**

<u>Product Information</u>	Product does not present an acute toxicity hazard based on known or supplied information.
Inhalation	No data available.
Eye Contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

The following ATE values have been calculated for the mixture

ATEmix (oral)	5,421.50 mg/kg
ATEmix (inhalation-gas)	14,902.20 ppm
ATEmix (inhalation-dust/mist)	11.20 mg/l
ATEmix (inhalation-vapor)	79.40 mg/l

Unknown acute toxicity

- 1.3903 % of the mixture consists of ingredient(s) of unknown acute toxicity.
- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
- 1.3903 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
- 1.3903 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
- 1.3903 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
- 1.3903 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

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	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.
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.

SECTION 12: Ecological information**12.1. Toxicity**

Harmful to aquatic life with long lasting effects

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

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

No information available.

Chemical name	Partition coefficient
Nitric acid	-2.3

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
Hydrogen chloride	Not PBT/vPvB
Aluminum Nitrate, Nonahydrate	PBT assessment does not apply
Nitric acid	Not PBT/vPvB

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****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/NDL), Philippines (PICCS), Japan (ENCS), China (IECSC), Australia (AICS), Korea (ECL).

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	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**

No information available

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

EUH071 - Corrosive to the respiratory tract

H272 - May intensify fire; oxidizer

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H331 - Toxic if inhaled

Revision date

06-Jul-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