

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

**Product identifier**

**Product Name** 6020ICS-0A

**Other means of identification**

**Synonyms** 10000 µg/mL: Cl; 2000 µg/mL: C; 1000 µg/mL: Al, Ca, Fe, K, Mg, Na, 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**

|                                   |             |
|-----------------------------------|-------------|
| Skin corrosion/irritation         | Category 2  |
| Serious eye damage/eye irritation | Category 1  |
| Carcinogenicity                   | Category 1B |
| Corrosive to metals               | Category 1  |

**Label Elements**

**Danger**

**Hazard statements**

Causes skin irritation  
Causes serious 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  
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: Wash with plenty of soap and water  
If skin irritation occurs: Get medical advice/attention  
Take off contaminated clothing and wash before reuse

**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 | 2.1      |
| 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.

**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 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.

**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**

**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<br>7647-01-0             | Ceiling: 2 ppm            | Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup>                                                                                                                        | IDLH: 45 ppm<br>IDLH: 67 mg/m <sup>3</sup><br>Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup>        |
| Aluminum Nitrate, Nonahydrate<br>7784-27-2 |                           | (vacated) TWA: 2 mg/m <sup>3</sup>                                                                                                                                    | TWA: 2 mg/m <sup>3</sup>                                                                            |
| Nitric acid<br>7697-37-2                   | TWA: 2 ppm<br>STEL: 4 ppm | TWA: 2 ppm<br>TWA: 5 mg/m <sup>3</sup><br>(vacated) TWA: 2 ppm<br>(vacated) TWA: 5 mg/m <sup>3</sup><br>(vacated) STEL: 4 ppm<br>(vacated) STEL: 10 mg/m <sup>3</sup> | IDLH: 25 ppm<br>TWA: 2 ppm<br>TWA: 5 mg/m <sup>3</sup><br>STEL: 4 ppm<br>STEL: 10 mg/m <sup>3</sup> |

**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/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**

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                                   |
|--------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------|-----|----------------------------------------|
| Hydrogen chloride<br>7647-01-0             | A4 - Not Classifiable as a Human Carcinogen | Group 3 - Unclassifiable as to carcinogenicity in humans                       |     | Present (Acid mists, strong inorganic) |
| Aluminum Nitrate, Nonahydrate<br>7784-27-2 |                                             | Group 2A - Probably carcinogenic to humans                                     |     | Present                                |
| Nitric acid<br>7697-37-2                   |                                             | Group 1 - Carcinogenic to humans<br>Group 2A - Probably carcinogenic to humans |     | Present                                |
| Potassium nitrate<br>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)                 | 8782 mg/kg |
| ATEmix (inhalation-gas)       | 26824 ppm  |
| ATEmix (inhalation-dust/mist) | 17.9 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<br>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<br>7647-01-0 | Toxic<br>Corrosive<br>Reactive    |
| Nitric acid<br>7697-37-2       | Toxic<br>Corrosive<br>Ignitable   |
| Potassium nitrate<br>7757-79-1 | Ignitable<br>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 hazards      | 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 hazards      | 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 hazards | 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 hazards      | None                                       |
| 14.6. Special Provisions         | None                                       |

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

**International Inventories**

|               |          |
|---------------|----------|
| TSCA          | Complies |
| DSL/NDL       | Complies |
| EINECS/ELINCS | Complies |
| ENCS          | Complies |
| IECSC         | Complies |
| KECL          | Complies |
| PICCS         | Complies |
| AIC           | 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 | 2.1      | 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) 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<br>7647-01-0 | 5000 lb                     |                        |                           | X                          |
| Nitric acid<br>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) 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) 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<br>7647-01-0 | 5000 lb                  | 5000 lb                            | RQ 5000 lb final RQ<br>RQ 2270 kg final RQ |
| Nitric acid<br>7697-37-2       | 1000 lb                  | 1000 lb                            | RQ 1000 lb final RQ<br>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<br>7647-01-0             | X          | X             | X            |
| Aluminum Nitrate, Nonahydrate<br>7784-27-2 | X          |               | X            |
| Nitric acid<br>7697-37-2                   | X          | X             | X            |
| Potassium nitrate                          | X          | X             | X            |

---

|           |  |  |  |
|-----------|--|--|--|
| 7757-79-1 |  |  |  |
|-----------|--|--|--|

**U.S. EPA Label Information**

Difference between SDS and EPA Pesticide label

**16. OTHER INFORMATION****Revision date**

28-Aug-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**