

SAFETY DATA SHEET

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

1.1. Product identifier

Product Name CLPP-CAL-1

Product Description 5000 µg/mL: Ca, K, Mg, Na; 2000 µg/mL: Al, Ba; 1000 µg/mL: Fe; 500 µg/mL: Co, Mn, Ni, V, Zn; 250 µg/mL: Ag, Cu; 200 µg/mL: Cr; 50 µg/mL: Be

Contains Nitric acid

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

Skin corrosion/irritation	Category 1 Sub-category B - (H314)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
Corrosive to metals	Category 1 - (H290)

2.2. Label elements

Product identifier
Contains Nitric acid

**Signal word**

Danger

Hazard statements

H314 - Causes severe skin burns and eye damage

H410 - Very toxic to aquatic life with long lasting effects

H290 - May be corrosive to metals

EUH071 - Corrosive to the respiratory tract

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

P234 - Keep only in original container

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

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

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

P310 - Immediately call a POISON CENTER or doctor/physician

P391 - Collect spillage

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

2.3. Other hazards

Inhalation of vapors in high concentration may cause irritation of respiratory system

Aspiration may cause pulmonary edema and pneumonitis

Ingestion of soluble silver salts may cause argyria, characterized by permanent blue-gray pigmentation of the skin, mucous membranes, and eyes

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	EC No (EU Index No)	CAS No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Nitric acid	231-714-2 ()	7697-37-2	5	(EUH071) Skin Corr. 1A (H314) Ox. Liq. 3 (H272) Acute Tox. 3 (H331)	No data available
Sodium carbonate	207-838-8 ()	497-19-8	1.1522	Eye Irrit. 2 (H319)	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

Call a physician or poison control center immediately. Remove to fresh air. If breathing is difficult, give oxygen. If breathing is irregular or stopped, administer artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Skin Contact	Immediate medical attention is required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye Contact	Immediate medical attention is required. 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.
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 Burn. Difficulty in breathing.

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

Notes to Physician Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure

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

Wear self-contained breathing apparatus and protective suit. Use personal protection equipment.

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. Do not flush into surface water or sanitary sewer system. Prevent product from entering drains. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Dispose of contents/container to an approved waste disposal plant.

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		
Nitric acid 7697-37-2	STEL: 1 ppm STEL: 2.6 mg/m³		STEL: 1 ppm STEL: 2.6 mg/m³		STEL: 1 ppm STEL: 2.6 mg/m³		STEL: 1 ppm STEL: 2.6 mg/m³				
Chemical name	Italy MDLPS		Portugal		Netherlands		Finland		Denmark		
Nitric acid 7697-37-2	STEL: 1 ppm STEL: 2.6 mg/m³		TWA: 2 ppm STEL: 1 ppm STEL: 2.6 mg/m³		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
Nitric acid 7697-37-2	LLV: 0.5 ppm LLV: 1.3 mg/m³ Binding STLV: 1 ppm Binding STLV: 2.6 mg/m³		STEL 1 ppm STEL 2.6 mg/m³		TWA: 2 ppm TWA: 5 mg/m³ STEL: 2 ppm STEL: 5 mg/m³		TWA: 1.4 mg/m³ STEL: 2.6 mg/m³		TWA: 2 ppm TWA: 5 mg/m³ STEL: 4 ppm STEL: 10 mg/m³		STEL: 1 ppm STEL: 2.6 mg/m³

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 Prevent product from entering drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	clear/ tan
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
Evaporation rate	No data available
Flammability (solid, gas)	No data available
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

Product Information

The product causes burns of eyes, skin and mucous membranes.

Inhalation

Causes burns. Corrosive to respiratory system. Inhaled corrosive substances can lead to a toxic edema of the lungs. Contact with moist mucous membranes of the respiratory system can cause caustic condition resulting in burns. Aspiration may cause pulmonary edema and pneumonitis. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Eye Contact

Causes burns. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Skin Contact

Causes burns. Silver in the form of a finely divided dust may cause discoloration in contact with skin, and argyrosis in case of inhalation.

Ingestion

Can burn mouth, throat, and stomach. Ingestion of soluble silver salts may cause argyria, characterized by permanent blue-gray pigmentation of the skin, mucous membranes, and eyes.

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

ATEmix (oral) 16,584.50 mg/kg

ATEmix (dermal) 68,607.30 mg/kg

ATEmix (inhalation-dust/mist) 7.22 mg/l

ATEmix (inhalation-vapor) 53.00 mg/l

Unknown acute toxicity

2.7806 % of the mixture consists of ingredient(s) of unknown acute toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.

2.7806 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.

6.47265 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).

6.47265 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).

2.7806 % 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

Reproductive Toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

May cause disorder and damage to the. blood. Nervous system. lungs. Respiratory system.

Neurological Effects

Prolonged or excessive exposure to manganese in dust or fumes may cause irreversible central nervous system damage (Manganism). Symptoms resemble Parkinson's disease and include tremors, impaired speech, mask-like face, and impaired movement.

Target organ effects

Skin, Eyes, Respiratory system.

Aspiration hazard

No information available.

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

Very toxic to aquatic life with long lasting effects

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

Chemical name	Algae/aquatic plants	Fish	Crustacea
Nitric acid		72: 96 h <i>Gambusia affinis</i> mg/L LC50	
Sodium carbonate		LC50: =300mg/L (96h, <i>Lepomis macrochirus</i>) LC50: 310 - 1220mg/L (96h, <i>Pimephales promelas</i>)	EC50: =265mg/L (48h, <i>Daphnia magna</i>)

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
Nitric acid	The substance is not PBT / vPvB
Sodium carbonate	The substance is 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

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. 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 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

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/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**

No information available

Full text of H-Statements referred to under section 3

H272 - May intensify fire; oxidizer

H314 - Causes severe skin burns and eye damage

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

Revision Date 26-Jun-2025

Reason for Revision Not applicable.

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

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 Safety Data Sheet