SECTION 1 Identification

Product Name: *Plasma***CAL** custom calibration standard for ICP-AES and ICP-MS

Matrix: 5% nitric acid

containing the following:

0 - 5 µg/ml: Fe, S

Catalogue Number: AQ0-182-145

Recommended Use: Laboratory Chemical

Instrument Calibration. This product is intended for laboratory testing. This product shall be used by trained personnel only.

Restriction on use: Do not use this product outside of a laboratory. This product should not be used by untrained personnel.

Manufacturer/ Supplier:

Canada/ International	USA	France	Germany
21 800 Clark-Graham	3rd Party Distribution Center	12 Ave du Québec	Alte Marktoberdorf er
Baie d'Urfé, (Montreal)	348 Route 11, Champlain,	Bât Iris,	Straße 14, 87616
Québec, H9X 4B6	N.Y. 12919-4816	91140 Villebon sur Yvette,	Marktoberdorf
Canada	USA	France	Germany
Phone: +1 (800) 361-6820	Phone: +1 (800) 361-6820	Phone: +33 (0) 1 69 18 71 17	Phone: +49 (0) 8342-89560-61
Fax: +1 (800) 253-5549	Fax: +1 (800) 253-5549	Fax: +33 (0) 1 60 92 05 67	Fax: +49 (0) 8342-89560-69

CORPORATE: Phone: +1 (514) 457-0701 | Fax: +1 (514) 457-4499
www.scpscience.com | sales@scpscience.com

In the event of a transport emergency: call Chemtrec (24 h): 1-703-741-5970 (CHEMTREC)

In the event of medical emergency: call your local poison center or equivalent.

SECTION 2 Hazards Identification

Emergency Overview

Harmonized Classification – Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation)

Classification: Corrosive- Category 1B

Symbols:

Signal Word: Danger

Hazard Statements

H314: Causes severe skin burns and eye damage.

Precautionary Statements

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P363: Wash contaminated clothing before reuse.
P405: Store locked up.
P501: Dispose of contents/container to an approved waste disposal site and according to federal, regional and local government requirements.

Other Hazards: No information found.

SECTION 3 Composition and Information on Ingredients

CAS No.	Chemical Name	Percentage	*Classification* ((EC) No 1272/2008)
7697-37-2	Nitric acid	5%	H272 - Oxid. Liq. 2 H314 - Skin Corr. 1A
7732-18-5	Water	95-100%	Not Classified

SECTION 4 First Aid Measures

In case of contact:

Eye: Immediately flush eyes with plenty of water for at least 15 minutes, holding the eyelids open. Neutral saline may be used as soon as it is available. Do NOT interrupt flushing. If irritation persists, repeat flushing. Get medical aid immediately.

Skin: Immediately flush skin with plenty of water for at least 30 minutes while removing contaminated clothing and shoes. Do NOT interrupt flushing. Get medical aid immediately.

Ingestion: For a precaution: Never give anything by mouth to an unconscious person. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Do NOT induce vomiting. Get medical aid immediately.

Inhalation: Take proper precautions to ensure your own safety before attempting rescue (e.g., wear appropriate protective equipment). If breathing, move person into fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid immediately.

Most important Symptoms: May cause severe skin burns and eye damage.

Notes to Physician/Doctor: Treat symptomatically and supportively.

SECTION 5 Fire-fighting Measures

Fire Hazard Summary: Product does not burn. May react with many metals. Generates heat when mixed with water. Firefighters should wear self-contained respirator and full protective gear. During a fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Whichever is most appropriate for the surrounding fire. Use flooding quantities of water spray or fog.

Extinguishing Media to be Avoided: DO NOT use dry chemical powders containing sodium bicarbonate, potassium bicarbonate, sodium carbonate, calcium carbonate, ammonium phosphate, or ammonium sulfate. Nitric acid may react violently with these extinguishing agents.

Combustion and Thermal Decomposition Products: Nitrogen oxides.

Special protective equipment and precautions for fire-fighters:	Firefighters should wear self-contained respirator and full protective gear.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD IDENTIFICATION

Health:	3 – Short exposure could cause serious temporary or moderate residual injury.
Flammability:	0
Reactivity:	0
Special Hazard:	

SECTION 6 Accidental Release Measures

Spill Precautions:	Personal precautions: Use personal protective equipment. Protective equipment and emergency procedures: Ensure adequate ventilation. Evacuate personnel to safe areas.
Clean-up:	SMALL SPILLS: Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Flush area with large quantities of water. Contaminated absorbent material will pose the same hazards as the spilled product. LARGE SPILLS: Evacuate area. Contact fire and emergency services and supplier for advice.

SECTION 7 Handling and Storage

Handling:	Use only with adequate ventilation and/or personal protective equipment. Wash thoroughly after using. Avoid contact with skin and eyes. Avoid generating vapors or mists. Avoid contact with all incompatible materials. When diluting, always add acid to cold water slowly and in small amounts. Never use hot water and never add water to the acid.
Storage:	Store in a tightly closed container in a cool, well ventilated and dry area. Store at room temperature, unless stated otherwise. Store away from incompatible materials, heated areas, sparks, and flames. Do not store in metal or glass containers.
Additional Information:	The mixture is intended for use in a laboratory. The mixture as supplied is stable under normal laboratory conditions.

SECTION 8 Exposure Controls and Personal Protection

Exposure guidelines

Nitric Acid

NIOSH:	2 ppm TWA (5 mg/m^3 TWA); 4 ppm STEL (10 mg/m^3 STEL)
ACGIH:	2 ppm TWA (5.2 mg/m^3 TWA); 4 ppm STEL (10 mg/m^3 STEL)
OSHA:	2 ppm TWA (5 mg/m^3 TWA)

Preventive Measures:

Eye / Face protection:	Eye-wash station in proximity. Avoid contact with skin and eyes.
Skin protection:	Wear suitable clothing and gloves. Refer to OSHA's protection regulations in 29 CFR 1910.133 or European Standard EN166.
Inhalation / Ventilation:	Use in a chemical fume hood.
Personal Hygiene:	Do not eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Appropriate Engineering	Use laboratory fumehoods in case of insufficient ventilation.

Controls:

SECTION 9 Physical and Chemical Properties

Information on basic physical and chemical properties

Physical State	Liquid
Appearance	Clear / Colorless
Odor	Odorless
Property Values	
pH VALUE	<2
Melting Point/Range	No data available
Boiling Point/Range	c. 100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Density	c. 1.023 g/ml @ 22.0 ^{0}C
Specific Gravity	No data available
Water Solubility	Soluble
Partition coefficient: n-octanol/water	No data available
Auto ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available

SECTION 10 Stability and Reactivity

Reactivity:	No information found.
Chemical stability:	Stable at room temperature and conditions of use.
Incompatible Materials:	Reacts with bases.
Conditions to avoid:	High temperatures.
Hazardous Decomposition Products:	Nitrogen oxides.
Hazardous Polymerization:	None reported.

SECTION 11 Toxicological Information

Potential Health Effects

Eye:	May cause eye irritation or burns.
Skin:	May cause skin irritation or burns.
Ingestion:	May be harmful or fatal if ingested.
Inhalation:	May cause irritation of the respiratory tract.

Effects of Short-Term (Acute) Exposure

LD50/LC50:	Fatal dose for humans: 5-10 ml conc. HNO_3 **LC50** (lethal concentration, 50% kill) Inhalation, rat – 260 mg/m^3/30M

Effects of Long-Term (Chronic) Exposure

Respiratory or skin sensitization:	No information found.
Germ Cell Mutagenicity:	No component of this product at levels greater than 0.1% is classified as a mutagen.

Reproductive Toxicity:	No component of this product at levels greater than 0.1% is classified for reproductive toxicity.
STOT- Single exposure:	Causes severe skin irritations and eye burns (Nitric Acid).
STOT- Repeated exposure:	No definitive information found for target organs toxicity, repeated exposure.
Aspiration Hazard:	No information found.
Carcinogenicity:	Not listed as a carcinogen by NTP, or CA Prop 65.
	Component(s) of this preparation listed in the National Toxicology Program ARC (12th Report on carcinogens): None.
	Component(s) of this preparation appearing in the list (June 22, 2012) of chemicals known to the state of California to cause cancer or reproductive toxicity (California Proposition 65): None.
	No evidence of cancer has been demonstrated for this product.
Signs and symptoms of exposure:	
Eye:	In contact with the eyes, nitric acid produced severe burns. Depending on the concentration and duration of contact with the eye, these burns may result in adhesions between tarsal and bulbar conjunctivae, permanent corneal opacification, and visual impairment leading to blindness.
Skin:	Dilute solutions of nitric acid produced mild epidermal irritation and can harden the epithelium without producing corrosion seen after contact with more concentrated solutions.
Ingestion:	Symptoms from swallowing nitric acid may include: severe abdominal pain, burns to skin or mouth, fever, severe mouth pain, rapid drop in blood pressure, throat swelling (which leads to breathing difficulty), severe throat pain, and bloody vomiting.
Inhalation:	Symptoms from breathing in (inhaling) concentrated nitric acid may include: bluish colored lips and fingernails, chest tightness, choking, coughing, coughing up blood, dizziness, low blood pressure, rapid pulse, shortness of breath, and weakness.

SECTION 12 Ecological Information

Eco- toxicity:	no information found for this preparation.
Mobility in soil:	no information found for this preparation.
Persistance and degradability:	no information found for this preparation.
Bioaccumulative potential:	no information found for this preparation.

SECTION 13 Disposal Considerations

Product disposal:	The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, run off and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authoriry requirements. Contact a licensed professional waste disposal service to dispose of this material.
	Review federal, provincial and local government requirements prior to disposal. Store material for disposal as indicated in Storage Conditions.
Contaminated packaging:	Dispose of as unused product.

SECTION 14 Transport Information

IMDG (sea):

UN-Number:	3264
Class:	**8**
Packing group:	III
Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid solution)
Marine pollutant:	No

ADR/DOT (road):

UN-Number:	3264
Class:	**8**
Packing group:	III
Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid solution)
Marine pollutant:	No

ICAO/IATA (air):

UN-Number:	3264
Class:	**8**
Packing group:	III
Proper shipping name:	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid solution)
Marine pollutant:	No

SECTION 15 Regulatory Information

US Federal:

TSCA: Listed on the TSCA Inventory (Nitric Acid 70%).

US State:

California Prop. 65: See Section 11.

Canada

WHMIS Classifications: E – Corrosive material

EU

Classifications: C- Corrosive

Risk Phrase(s): R34- Causes severe burns.
R36/38- Irritating to eyes and skin.

SECTION 16 Other Information

Revised: May 25, 2022

Date of previous revision(s): Not Applicable

Hazard Indications (H) Regulation (EC) No 1272/2008 quoted in Section 3.

Oxid. Liq. 2	Oxidizing Liquids, Oxidizing Solids
Skin Corr. 1A	Skin Corrosion/ Irritation
H272	May intensify fire; oxidizer.
H314	Causes severe skin burns and eye damage.

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This safety data sheet has been prepared in conformance with GHS (Global Harmonised System) Guidance

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