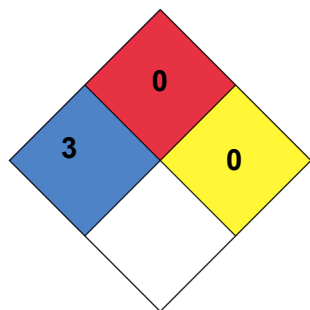


NFPA



HMIS

Health	/ 3
FLAMMABILITY	0
Physical Hazard	0
Personal Protection	D

SAFETY DATA SHEET

Calcium

Caution: HMIS[®] ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks

SECTION 1) CHEMICAL PRODUCT AND MANUFACTURER'S IDENTIFICATION

Product Name	Calcium	Product ID #	030
Manufacturer's Name	Huma		
Address:	1331 W Houston Ave. Gilbert, AZ, US, 85233		
Emergency Phone	Chemtrec: (In the USA) 800-424-9300 (International) 703-527-3887		
Information Phone #	480-961-1220		
Product Use	Used as a part of a plant nutrition program.		

SECTION 2) HAZARDS IDENTIFICATION

Classification	Corrosive to metals - Category 1 Acute toxicity Inhalation Vapor - Category 2 Acute toxicity Oral - Category 4 Serious Eye Damage - Category 1 Skin Corrosion - Category 1 Specific Target Organ Toxicity - Repeated Exposure - Category 2
Safety data sheet prepared in accordance to the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Workplace Hazardous Materials Information System (WHMIS).	

Pictograms



Signal Word

Danger

Hazardous Statements - Health

H330 - Fatal if inhaled
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H373 - May cause damage to organs through prolonged or repeated exposure

Hazardous Statements - Physical

H290 - May be corrosive to metals

Precautionary Statements - General

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P103 - Read label before use.

Precautionary Statements - Prevention

P260 - Do not breathe fume/gas/mist/vapors/spray.
P271 - Use only outdoors or in a well-ventilated area.
P284 - Wear respiratory protection.
P264 - Wash thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P234 - Keep only in original packaging.

Precautionary Statements - Response

P280 - Wear protective gloves, protective clothing, eye protection/face protection.
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310 - Immediately call a POISON CENTER or doctor.
P320 - Specific treatment is urgent (see First-Aid on this label).
P301 + P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P330 - Rinse mouth.
P390 - Absorb spillage to prevent material damage.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P363 - Wash contaminated clothing before reuse.
P321 - Specific treatment (see First-Aid on this label).

Precautionary Statements – Storage	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up.
Precautionary Statements – Disposal	P406 - Store in a corrosive resistant container with a resistant inner liner. P501 - Dispose of contents/container in accordance with local/national/international regulations.

SECTION 3) COMPOSITION/INFORMATION ON INGREDIENTS

CAS	Chemical Name	% By Weight
13477-34-4	Calcium Nitrate, Tetrahydrate	30%-40%
7697-37-2	Nitric Acid	1%-3%

Specific chemical identity and/or exact percentage (concentration) of the composition has been withheld to protect confidentiality.

SECTION 4) FIRST-AID MEASURES

Inhalation	Remove source of exposure or move person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. Specific treatment is urgent (see First-Aid on this label). If breathing has stopped, trained personnel should begin rescue breathing or, if the heart has stopped, immediately start cardiopulmonary resuscitation (CPR) or automated external defibrillation (AED). If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor.
Eye Contact	Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 30 minutes or until medical aid is available. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.
Skin Contact	Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Rinse skin with lukewarm, gently flowing water/shower for a duration of 30 minutes or until medical aid is available. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before re-use or discard.
Ingestion	Immediately call a POISON CENTER or doctor. Rinse mouth. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by the POISON CENTER/doctor. Do NOT induce vomiting. If vomiting occurs naturally, lie on your side, in the recovery position.

Most important symptoms and effects, both acute and delayed No data available.

Indication of any immediate medical attention and special treatment needed

Treat according to symptoms (decontamination, vital functions), no known specific antidote. Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient.

SECTION 5) FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, foam, carbon dioxide, water-spray or alcohol-resistant foam. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Large Fire : Water spray, fog or alcohol-resistant foam.
Unsuitable Extinguishing Media	Do not use straight stream of water
Specific Hazards Arising from the Chemical	Fire will produce irritating, toxic and corrosive gases. Containers may explode in fire.
Precautions for Firefighters	Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Cool containers with flooding quantities of water until well after fire is out. Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.
Special Protective Equipment	Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear.

SECTION 6) ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Evacuate and isolate hazard area and keep unauthorized personnel away. Stay uphill and/or upstream. Ventilate closed spaces before entering. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.
Protective Equipment	Wear chemical protective clothing and positive pressure self-contained breathing apparatus (SCBA). Breathing protection is required.
Personal Precautions	Do not breathe vapor or mist. Do not get on skin, eyes or clothing.
Environmental Precautions	Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.
Methods and Materials for Containment and Cleaning Up	Absorb Liquids in vermiculite, dry sand, earth, or similar inert material and deposit in sealed containers for disposal. Ventilate area after clean-up is complete.

SECTION 7) HANDLING AND STORAGE

General	Wash hands after use. Do not breathe vapor or mist. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. All containers must be properly labelled. Eyewash stations and showers should be available in areas where this material is used and stored. Do not get in eyes, on skin, or on clothing.
Ventilation Requirements	Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source. Report ventilation failures immediately.
Storage Room Requirements	Store in a cool, dry, well ventilated area, away from sources of ignition and incompatibilities. Keep containers securely sealed when not in use. Containers that have been opened must be carefully resealed to prevent leakage. Indoor storage should meet OSHA standards and appropriate fire codes. Empty containers retain residue and may be dangerous. Store in approved containers and protect against physical damage.

SECTION 8) EXPOSURE CONTROLS/PERSONAL PROTECTION



Eye Protection	Wear eye protection with side shields or goggles. Wear indirect-vent, impact and splash resistant goggles when working with liquids.
Skin Protection	Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Use of an apron and over-boots of chemically impervious materials such as neoprene or nitrile rubber. Launder soiled clothes or properly disposed of contaminated material, which cannot be decontaminated.
Respiratory Protection	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 should be followed. Check with respiratory protective equipment suppliers.
Appropriate Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Chemical Name	ACGIH TWA (mg/m ³)	ACGIH TWA (ppm)	ACGIH STEL (mg/m ³)	ACGIH STEL (ppm)	ACGIH Carcinogen	ACGIH TLV Basis	ACGIH Notations
Nitric Acid		2	4	4		URT & eye irr; dental erosion	
Chemical Name	OSHA TWA (mg/m ³)	OSHA TWA (ppm)	OSHA STEL (mg/m ³)	OSHA STEL (ppm)	OSHA Carcinogen	OSHA Skin designation	OSHA Tables (Z1, Z2, Z3)
Nitric Acid	5	2					1
Chemical Name	NIOSH TWA (mg/m ³)	NIOSH TWA (ppm)	NIOSH STEL (mg/m ³)	NIOSH STEL (ppm)	NIOSH Carcinogen		
Nitric Acid	5	2	10	4			

irr - Irritation, URT - Upper respiratory tract

SECTION 9) PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to Slightly hazy, light amber	Bulk Density (pounds/ft³):	N/A
Physical State:	Liquid	Vapor Pressure:	No data available
Odor:	Wintergreen Type	Vapor Density:	No data available
Odor Threshold:	No data available	Evaporation Rate:	No data available
Molecular Formula:	Mixture	VOC Content:	No data available
Boiling Point:	Greater than 100° C. (212° F.)	Water Solubility:	Complete
Freezing/Melting Point:	Less than 0° C. (32° F.)	pH (as is):	≤ 1.0
Specific Gravity:	1.41	Density (pounds/gallon):	11.75

SECTION 10) STABILITY AND REACTIVITY

Reactivity	No data available.
Chemical Stability	Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions/Polymerization	Will not occur.
Conditions to Avoid	Avoid heat, sparks, flame, high temperature and contact with incompatible materials.
Incompatible Materials	Strong bases, acids, and oxidizing agents. Corrosive in contact with metals.
Hazardous Decomposition Products	Oxides of carbon

SECTION 11) TOXICOLOGICAL INFORMATION

Acute Toxicity	Fatal if inhaled Harmful if swallowed The Acute Toxicity Estimate (ATE) for an oral exposure to this mixture is 1111.11 mg/kg body weight The Acute Toxicity Estimate (ATE) for a dermal exposure to this mixture is >5000 mg/kg body weight The Acute Toxicity Estimate (ATE) for an inhalation (vapour) exposure to this mixture is 1.5625 mg/l 7697-37-2 NITRIC ACID Toxic if inhaled. Corrosive to the respiratory tract.
Aspiration Hazard	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Germ Cell Mutagenicity	Based on available data, the classification criteria are not met.
Reproductive Toxicity	Based on available data, the classification criteria are not met.
Respiratory/Skin Sensitization	Based on available data, the classification criteria are not met.
Serious Eye Damage/Irritation	Causes serious eye damage 7697-37-2 NITRIC ACID Corrosive to the eye.
Skin Corrosion/Irritation	Causes severe skin burns and eye damage 7697-37-2 NITRIC ACID Corrosive to the skin.
Specific Target Organ Toxicity – Repeated Exposure	May cause damage to organs through prolonged or repeated exposure
Specific Target Organ Toxicity – Single Exposure	Based on available data, the classification criteria are not met.
Likely Routes of Exposure	Inhalation, Ingestion, Skin contact, Eye contact 7697-37-2 NITRIC ACID Serious local effects by all routes of exposure.

Miscellaneous Health Effects		7697-37-2 NITRIC ACID Inhalation may cause asthma-like reactions. Exposure could cause asphyxiation due to swelling in the throat. Inhalation of high concentrations may cause pneumonitis and lung oedema. Repeated or prolonged inhalation may cause effects on the teeth. This may result in tooth erosion. The substance may have effects on the upper respiratory tract and lungs. This may result in chronic inflammation of the respiratory tract and reduced lung function. Mists of this strong inorganic acid are carcinogenic to humans.	
SECTION 12) ECOLOGICAL INFORMATION			
Ecotoxicity		Based on available data, the classification criteria are not met.	
Persistence and Degradability		No data available.	
Bioaccumulative Potential		No data available.	
Mobility in Soil		No data available.	
Other Adverse Effects		No data available.	
Results of the PBT and vPvB assessment		7697-37-2 NITRIC ACID The substance is not PBT / vPvB.	
SECTION 13) DISPOSAL CONSIDERATIONS			
Waste Disposal		It is the responsibility of the user of the product to determine at the time of disposal whether the product meets local criteria for hazardous waste. Waste management should be in full compliance with national, state and local laws. Empty Containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes.	
SECTION 14) TRANSPORT INFORMATION			
UN Number	U.S. DOT Info UN1760	IMDG Info UN1760	IATA Info UN1760
UN Proper Shipping Name	Corrosive liquids, n.o.s. (NITRIC ACID)	Corrosive liquids, n.o.s. (CALCIUM NITRATE, tetrahydrate, NITRIC ACID)	Corrosive liquids, n.o.s. (CALCIUM NITRATE, tetrahydrate, NITRIC ACID)
Transport Hazard Class	8	8	8
Packing Group	II	II	II
Hazardous Substance (RQ)	No Data Available	No Data Available	No Data Available
Environmental Hazards	No Data Available	No Data Available	No Data Available
Special Precautions for User	No Data Available	No Data Available	No Data Available
Transport in bulk according to Annex II of MARPOL and the IBC code	No Data Available	No Data Available	No Data Available
SECTION 15) REGULATORY INFORMATION			
CAS	Chemical Name	% By Weight	Regulation List
13477-34-4	Calcium Nitrate, Tetrahydrate	30%-40%	SARA313, SARA312, NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL)
7697-37-2	Nitric Acid	1%-3%	SARA313, CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act, SARA312, TSCA - Toxic Substances Control Act (TSCA), NJ_RightToKnow_HazSubList - New Jersey Right to Know Hazardous Substance List (RTKHSL), MA_RightToKnow - Massachusetts Right to Know
Product does not contain any chemicals listed under California Proposition 65			
SECTION 16) OTHER INFORMATION			
Glossary ACGIH - American Conference of Governmental Industrial Hygienists; CAS - Chemical Abstracts Service ; Chemtrec - Chemical Transportation Emergency Center; DSL - Domestic Substances List; ESL- Effects screening levels; GHS - "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations; HMIS - Hazardous Material Information Service; IATA - Dangerous Goods Regulations (DGR) for the air transport (IATA); IMDG - International Maritime Dangerous Goods Code; LC - Lethal Concentration; LD - Lethal Dose; NFPA - National Fire Protection Association; OEL - Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL - Permissible Exposure Limit; SARA 313 - Superfund Amendments and Reauthorization Act, Section 313; SCBA - Self Contained Breathing Apparatus; ppm - parts per million; STEL - Short-term exposure limit; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act Public Law 94-469; TWA - Time-weighted average; US DOT- US Department of Transportation.			
Version: Revision Date: 4/30/2025 First Edition: January 12, 2018			
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