Nitrite Titrant, CAN Solution

SECTION 1: Identification

Product identifier

Product name: Nitrite Titrant, CAN Solution
Product code: PMCND2229-B

Recommended use of the product and restriction on use

Relevant identified uses: Not determined or not applicable.
Uses advised against: Not determined or not applicable.
Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:	**Supplier:**
United States	**Canada**
AquaPhoenix Scientific	PMC Water System Services Services, Inc
860 Gitts Run Road	124 Connie Cres. Unit#9 Concord
Hanover	ON
PA 17331	Canada L4K-1L7
(717) 632-1291	(800) 668-0946

Emergency telephone number:

United States

Emergency Phone No. (800) 255-3924

SECTION 2: Hazard identification

GHS classification:

Skin corrosion, category 1A
Skin sensitization, category 1
Serious eye damage, category 1
Chronic aquatic hazard, category 2
Corrosive to metals, category 1

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P234 Keep only in original container.
P321 Specific treatment (see supplemental first aid instructions on this label).
P390 Absorb spillage to prevent material damage.
P363 Wash contaminated clothing before reuse.
P304+P340+P310 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
P301+P330+P331+P310 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353+P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
P305+P351+P338+P310 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.
P302+P352 If on skin: Wash with soap and water.
P333+P313 If skin irritation or a rash occurs: Get medical advice/attention.
P391 Collect spillage.
P405 Store locked up.
P406 Store in corrosive resistant stainless steel container with a resistant inner liner.
P501 Dispose of contents and container as instructed in Section 13.

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 7664-93-9	Sulfuric Acid	<10
CAS number: 7732-18-5	Water	>70
CAS number: 16774-21-3	Ceric Ammonium Nitrate	<20

Additional Information: None

SECTION 4: First-aid measures

Description of first-aid measures

General notes:
Not determined or not available.

After inhalation:
Move exposed individual to fresh air
Loosen clothing as necessary and position individual in a comfortable position
Maintain an unobstructed airway
Immediately call a POISON CONTROL CENTER or seek medical attention

After skin contact:
Immediately remove all contaminated clothing
Wash affected area with soap and water
Immediately call a POISON CONTROL CENTER or seek medical attention

After eye contact:
Rinse/flush exposed eye(s) gently using water for 15-20 minutes
Remove contact lens(es) if able to do so during rinsing
Immediately call a POISON CONTROL CENTER or seek medical attention

After ingestion:
Immediately call a POISON CONTROL CENTER or seek medical attention
Do not induce vomiting
Rinse mouth and then drink plenty of water

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:
Not determined or not available.

Delayed symptoms and effects:
Not determined or not available.

Immediate medical attention and special treatment

Specific treatment:
Not determined or not available.

Notes for the doctor:
Not determined or not available.

SECTION 5: Fire-fighting measures

Extinguishing media

Suitable extinguishing media:
Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition

Unsuitable extinguishing media:
Not determined or not applicable.

Specific hazards during fire-fighting:
Thermal decomposition can lead to release of irritating gases and vapors
May form corrosive mixtures with water

Special protective equipment for firefighters:
Wear protective eye wear, gloves and clothing
Refer to Section 8
Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:
Heating causes a rise in pressure, risk of bursting and combustion
Shut off sources of ignition
Carbon monoxide and carbon dioxide may form upon combustion

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Ensure adequate ventilation

Ensure air handling systems are operational
Wear protective eye wear, gloves and clothing

Environmental precautions:
Should not be released into the environment
Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:
Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)
Dispose of contents / container in accordance with local regulations
Wear protective eye wear, gloves and clothing

Reference to other sections:
Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:
Do not eat, drink, smoke or use personal products when handling chemical substances.
Avoid breathing mist or vapor.
Use only with adequate ventilation.

Conditions for safe storage, including any incompatibilities:
Store in a cool, well-ventilated area.
Store away from foodstuffs.
Keep container tightly sealed.
Protect from freezing and physical damage.
Store in corrosive resistant container with a resistant inner lining.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
United States (OSHA)	Sulfuric Acid	7664-93-9	OSHA PEL TWA 1.0 mg/m³
ACGIH	Sulfuric Acid	7664-93-9	ACGIH TLV 0.2 mg/m³, thoracic fraction
	Sulfuric Acid	7664-93-9	ACGIH TLV STEL 3.0 mg/m³
NIOSH	Sulfuric Acid	7664-93-9	NIOSH REL TWA 1.0 mg/m³

Biological limit values:
No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:
Not determined or not applicable.

Appropriate engineering controls:
Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling.
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Personal protection equipment

Eye and face protection:
Safety goggles or glasses, or appropriate eye protection.

Skin and body protection:
Select glove material impermeable and resistant to the substance.

Respiratory protection:
When necessary, use NIOSH-approved breathing equipment.

General hygienic measures:
Wash hands before breaks and at the end of work.
Avoid contact with skin, eyes and clothing.
Perform routine housekeeping.
Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance (physical state, color):	Clear, orange colored liquid
Odor:	Odorless
Odor threshold:	Not available
pH-value:	<3
Melting/Freezing point:	Approx. 0°C
Boiling point/range:	Approx. 100°C
Flash point:	Not available
Evaporation rate:	Not available
Flammability (solid, gaseous):	Not available
Explosion limit upper:	Not available
Explosion limit lower:	Not available
Vapor pressure:	Not available
Vapor density:	>1
Density:	Not available
Relative density:	Approx. 1.05
Solubilities:	Not determined or not available.
Partition coefficient (n-octanol/water):	Not available
Auto/Self-ignition temperature:	Not available
Decomposition temperature:	Not available
Dynamic viscosity:	Not available
Kinematic viscosity:	Not available
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Does not react under normal conditions of use and storage.

Chemical stability:
Stable under normal conditions of use and storage.

Possibility of hazardous reactions:
None under normal conditions of use and storage.

Conditions to avoid:
Incompatible materials, excess heat.

Incompatible materials:
Organics, chlorates, carbides, fulminates, picrates, alkalines, reducing agents, nitrates, acetic acids, oxidizing agents, metals.

Hazardous decomposition products:
Oxides of sulfur.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Route	Result
Ceric Ammonium Nitrate	oral	LD50 Oral - Rat - female - 300 - 2,000 mg/kg

Skin corrosion/irritation

Assessment: Causes severe skin burns and eye damage

Product data: No data available.

Substance data:

Name	Result
Ceric Ammonium Nitrate	Causes skin irritation
Sulfuric Acid	Causes severe skin burns and eye damage.

Serious eye damage/irritation

Assessment: Causes serious eye damage

Product data: No data available.

Substance data:

Name	Result
Ceric Ammonium Nitrate	Causes serious eye damage

Respiratory or skin sensitization

Assessment: May cause an allergic skin reaction

Product data: No data available.

Substance data:

Name	Result
Ceric Ammonium Nitrate	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Nitrite Titrant, CAN Solution

Name	Species	Result
Sulfuric Acid	Strong Inorganic Acid Mists Containing Sulfuric Acid	Known to be human carcinogens.

International Agency for Research on Cancer (IARC):

Name	Classification
Sulfuric Acid	Group 1 - Carcinogenic to humans

National Toxicology Program (NTP):

Name	Classification
Sulfuric Acid	Known to be human carcinogens

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data:

Name	Result
Ceric Ammonium Nitrate	Specific target organ toxicity - single exposure. Inhalation - May cause respiratory irritation

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.

Information on likely routes of exposure: No data available.

Symptoms related to the physical, chemical and toxicological characteristics: No data available.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data:

Nitrite Titrant, CAN Solution

Name	Result
Ceric Ammonium Nitrate	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.14 mg/l - 96 h

Chronic (long-term) toxicity

Product data: No data available.
Substance data: No data available.

Persistence and degradability

Product data: No data available.
Substance data: No data available.

Bioaccumulative potential

Product data: No data available.
Substance data: No data available.

Mobility in soil

Product data: No data available.
Substance data: No data available.

Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11)

SECTION 14: Transport information

Canadian Transportation of Dangerous Goods (TDG)

UN number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. Sulfuric Acid, Ceric Ammonium Nitrate
UN transport hazard class(es)	8 
Packing group	II
Environmental hazards	Marine Pollutant Ceric Ammonium Nitrate
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. Sulfuric Acid, Ceric Ammonium Nitrate
UN transport hazard class(es)	8 
Packing group	II
Environmental hazards	Marine Pollutant Ceric Ammonium Nitrate

Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	UN3264
UN proper shipping name	Corrosive liquid, acidic, inorganic, N.O.S. Sulfuric Acid, Ceric Ammonium Nitrate
UN transport hazard class(es)	8 
Packing group	II
Environmental hazards	Marine Pollutant Ceric Ammonium Nitrate
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL):

16774-21-3	Ceric Ammonium Nitrate	Listed
7664-93-9	Sulfuric Acid	Listed
7732-18-5	Water	Listed

Non-domestic substances list (NDSL): Not determined.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

NFPA: 3-0-4

HMIS: 3-0-4

Initial preparation date: 04.25.2017

End of Safety Data Sheet