SAFETY DATA SHEET

Nitric Acid 5 - 20% Industrial Grade

Section 1. Identification

Product identifier : Nitric Acid 5 - 20% Industrial Grade

Other means of identification : Product code: 3108-30645
Historic MSDS #: 16009

Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Manufacture of chemical products. Manufacture of specialty fertilizers.

Uses advised against	Reason
Product is not intended for consumer use. Reserved for industrial and professional use only.	Risk assessment.

Supplier's details : Agrium Canada Partnership
13131 Lake Fraser Drive, S.E.
Calgary, Alberta, Canada, T2J 7E8

Agrium U.S. Inc.
5296 Harvest Lake Drive
Loveland, CO 80538

Company phone number (North America):
1-800-403-2861 (Customer Service)

Emergency telephone number (with hours of operation) : Agrium 24 Hr Emergency Telephone Numbers:
English:
Transportation Emergencies: 1-800-792-8311
Medical Emergencies: 1-303-389-1653

French or Spanish:
Tranportation or Medical Emergencies: 1-303-389-1654

Section 2. Hazard identification

Classification of the substance or mixture : CORROSIVE TO METALS - Category 1
SKIN CORROSION - Category 1A
SERIOUS EYE DAMAGE - Category 1

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : May be corrosive to metals.
Causes severe skin burns and eye damage.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep only in original packaging. Wash hands thoroughly after handling.

Section 2. Hazard identification

Response : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
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 physician.
Absorb spillage to prevent material damage.

Storage : Store locked up. Store in a corrosion resistant container with a resistant inner liner.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : None known.

Other hazards which do not result in classification : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	% (w/w)	CAS number
Water	80 - 95	7732-18-5
Nitric acid	5 - 20	7697-37-2

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact : CORROSIVE. Begin eye irrigation immediately. All eye exposures to nitric acid require medical evaluation following decontamination. Immediately rinse eyes with large quantities of water or saline for a minimum of 20-30 minutes depending on severity of exposure. If possible, remove contact lenses being careful not to cause additional eye damage. If the initial water supply is insufficient, keep the affected area wet with a moist cloth and transfer the person to the nearest place where rinsing can be continued for the recommended length of time. Call an ambulance for transport to hospital. Continue eye irrigation during transport. For additional advice call the medical emergency number on this safety data sheet or your poison center or medical provider.

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. CORROSIVE. If gases or vapors exceed the IDLH or are present in unknown concentrations, rescuers must wear self-contained breathing apparatus and acid resistant protective clothing or coveralls under the requirements of the Hazwoper standard, 29CFR 1910.120.

REMOVE PERSON TO FRESH AIR. Watch closely for signs of wheezing and breathing difficulties. Maintain an open airway. If not breathing, begin CPR. Oxygen may be administered by trained personnel. Affected persons who have stopped breathing or are having difficulty breathing or are unconscious need immediate medical attention. Symptoms may be delayed after exposure to nitric acid or its thermal decomposition products. The exposed person may need to be kept under medical surveillance for 24-72 hours. Call an ambulance for transport to hospital. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

Section 4. First-aid measures

Skin contact : CORROSIVE. Causes severe burns. Immediately begin rinsing the affected areas with water. Remove contaminated clothing and shoes. Affected areas should be rinsed for a minimum of 20 - 30 minutes or longer depending on severity of exposure. Luke-warm water is recommended for exposures requiring prolonged irrigation. Conscious persons without breathing difficulties may benefit from prolonged irrigation in a fixed shower or bathing facility prior to transport to hospital. Call an ambulance for transport to hospital. Continue skin irrigation during transport. For additional advice call the medical emergency number on this safety data sheet or your poison center or medical provider.

Ingestion : CORROSIVE. May cause severe burns to the mouth, throat, and stomach. Oral exposures: If the affected person requires cardiopulmonary resuscitation, avoid mouth to mouth contact. Do not induce vomiting. If vomiting occurs, attempt to keep head lower than the chest so that vomit does not enter the lungs. Wash (decontaminate) face and mouth with water to remove visible material. If the exposed person is conscious and can swallow, give 1-2 sips of water. Do not give anything else by mouth. Loosen tight clothing such as collar, tie, belt or waistband to prevent any breathing restrictions. For signs of breathing difficulties, refer to the INHALATION section. Call an ambulance for transportation to hospital. For additional advice, call the medical emergency number on this safety data sheet or your poison center or medical provider.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Corrosive to eyes on contact. Causes serious eye damage. Eye contact can result in temporary or permanent corneal damage and/or blindness. The full extent of damage to the eyes may not be known for 1 week after injury.

Inhalation : May cause slight transient irritation.

Skin contact : Corrosive to skin on contact. Causes burns. May cause temporary yellow staining of the skin.

Ingestion : Corrosive to the digestive tract. May cause burns to the mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Adverse symptoms may include the following:
coughing
respiratory tract irritation
wheezing and breathing difficulties

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
yellow staining of the skin

Ingestion : Adverse symptoms may include the following:
stomach pains
throat and stomach pain
difficulty swallowing
wheezing and breathing difficulties

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Nitric acid is an acid which may cause coagulative necrosis. Treatment is symptomatic and supportive. The extent of injury depends on duration of exposure and concentration of liquid. Do not attempt to use chemicals to neutralize the exposure. 24 Hr Medical Emergency telephone number for professional support: English: 1-303-389-1653; French or Spanish: 1-303-389-1654.

Section 4. First-aid measures

Specific treatments : Outcomes can be improved by minimizing time to decontamination and extending decontamination times to reduce tissue damage. Expert opinion indicates extended decontamination is required to remove corrosive chemicals. Skin and eye decontamination should be performed for a minimum of 20 - 30 minutes. Extended decontamination times may be required depending on the exposure. To avoid hypothermia, irrigation water should be maintained at a comfortable temperature. If the patient is not in extremis, it may be necessary to delay transport to emergency care facilities to ensure adequate decontamination time. However, early patient transport may be necessary depending on the patient's condition or the availability of water. If possible, continue skin and/or eye irrigation during emergency medical transport. Double-bag contaminated clothing and personal belongings of the patient.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. Depending on the situation, the rescuer should wear an appropriate mask, gloves, protective clothing and possibly, a self-contained breathing apparatus. Mouth-to-mouth resuscitation of oral exposure patients is not recommended. First-aiders with contaminated clothing should be properly decontaminated.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Non-flammable. Material will not burn. Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Not an oxidizer at the manufactured concentration. It may become an oxidizing liquid if concentrated by evaporation. In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
Acidic corrosive material
nitrogen oxides

Special protective actions for fire-fighters : No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. If large quantities are involved in a major fire, evacuate the area. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fight fire from protected location or maximum possible distance.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. If evaporated to dryness, the product acts as an oxidizing agent, and supports combustion by liberating oxygen even if smothered. Cool containing vessels with flooding quantities of water until well after fire is out. A self contained breathing apparatus should be used to avoid inhalation of toxic fumes. When heated to decomposition it emits toxic fumes (NH3, N0, N02...). Contaminated water can cause environmental damage. Contain and collect water used to fight fire.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Put on appropriate personal protective equipment. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Do not breathe vapor or mist. Wear appropriate respirator when ventilation is inadequate. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Refer to Emergency Response Guidebook, Guide 157 for further information regarding spill control and Isolation/Protective Action Distances Guidelines.

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Put on appropriate personal protective equipment (see Section 8). Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. Neutralize acids by applying basic substances (soda ash or lime) or use an acid spill kit. Dispose of via a licensed waste disposal contractor.

Large spill : Put on appropriate personal protective equipment (see Section 8). Approach release from upwind. Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Do not absorb in sawdust or other combustible material. It may lead to a fire risk when it dries out. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Contaminated absorbent material may pose the same hazard as the spilled product. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Handle the material in a fume hood/ cupboard or under local exhaust ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container. Absorb spillage to prevent material damage.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Refer to NFPA 400 Hazardous Materials Code for further information on the safe storage and handling of hazardous materials. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from alkalis. Separate from reducing agents and combustible materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

Contains nitric acid. Will corrode incompatible metals and many plastic materials. 304 or 347 stainless steel are acceptable materials of construction. Storage tanks should be designed to API Standard 650. Tanks should be vented and painted white or in light, heat-reflecting colors. Piping should be welded schedule 40 stainless steel. Ensure that all pumps, valves, meters, are of compatible material. Gaskets should be of Teflon. Secondary containment is recommended where practical or required by law. Refer to NFPA 400 Hazmat Code for further information.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Canadian Regulations: Nitric acid	**CA Alberta Provincial (Canada, 4/2009).** 15 min OEL: 4 ppm 15 minutes. 15 min OEL: 10 mg/m³ 15 minutes. 8 hrs OEL: 2 ppm 8 hours. 8 hrs OEL: 5.2 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 4/2014).** TWA: 2 ppm 8 hours. STEL: 4 ppm 15 minutes. **CA Ontario Provincial (Canada, 1/2013).** TWA: 2 ppm 8 hours. TWA: 5.2 mg/m³ 8 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 2 ppm 8 hours. TWAEV: 5.2 mg/m³ 8 hours. STEV: 4 ppm 15 minutes. STEV: 10 mg/m³ 15 minutes.
U.S. Federal Regulations: Nitric acid	**ACGIH TLV (United States, 4/2014).** TWA: 2 ppm 8 hours. TWA: 5.2 mg/m³ 8 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. **OSHA PEL 1989 (United States, 3/1989).** TWA: 2 ppm 8 hours. TWA: 5 mg/m³ 8 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. **NIOSH REL (United States, 10/2013).** TWA: 2 ppm 10 hours. TWA: 5 mg/m³ 10 hours. STEL: 4 ppm 15 minutes. STEL: 10 mg/m³ 15 minutes. **OSHA PEL (United States, 2/2013).** TWA: 2 ppm 8 hours.

Section 8. Exposure controls/personal protection

	TWA: 5 mg/m³ 8 hours.
Water	None assigned.

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.
Recommended:
butyl rubber
neoprene rubber
Viton®
It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Wear suitable coveralls capable of preventing significant penetration of the substance or chemical-resistant protective suit.
Recommended:
DuPont Tychem® 4000, Tychem® 6000, Tychem® 6000 FR, or Tychem® 10000
Kappler Zytron® 200 or Zytron® 500
Lakeland ChemMax® 2, or Lakeland Interceptor®
or equivalent Contact your personal protective equipment manufacturer to verify the compatibility of the equipment for the intended purpose.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Impervious rubber safety boots.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. **Air filtering respirators are not acceptable for use with this material.** Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Full chemical-resistant suit and self-contained breathing apparatus should be worn only by trained and authorized persons. Contact your personal protective equipment manufacturer to verify the compatibility of the

Section 8. Exposure controls/personal protection

equipment for the intended purpose.

Section 9. Physical and chemical properties

Appearance

Physical state	:	Liquid.
Color	:	Colorless.
Odor	:	Pungent.
Odor threshold	:	Not available.
pH	:	<1
Melting point	:	Not available.
Boiling point	:	Not available.
Flash point	:	Not applicable.
Evaporation rate	:	Not available.
Flammability (solid, gas)	:	Not applicable. The substance will not burn.
Lower and upper explosive (flammable) limits	:	Not available.
Vapor pressure	:	6.1 kPa (46 mm Hg) [room temperature] 27.5 kPa (206 mm Hg) [50°C]
Vapor density	:	2.2 [Air = 1]
Relative density	:	Not available.
Solubility	:	Easily soluble in the following materials: cold water and hot water.
Solubility in water	:	Water-soluble liquid
Partition coefficient: n-octanol/water	:	-2.3
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.
Viscosity	:	Not available.

Section 10. Stability and reactivity

Reactivity : Reactive or incompatible with the following materials:
Reacts violently when water is added to this product.
Incompatible with alkali metals.
Inorganic hydroxide.
Organic chemicals.
Avoid contamination by any source including metals, dust and organic materials.
Refer to NFPA 400 Hazardous Materials Code for further information on the safe storage and handling of hazardous materials.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following:
contact with combustible materials
Contact with incompatible substances.

Conditions to avoid : Refer to NFPA 400 Hazardous Materials Code for further information on the safe storage and handling of hazardous materials.

Section 10. Stability and reactivity

Incompatible materials : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air. Contact your sales representative or a metallurgical specialist to ensure compatability with your equipment.
Reactive or incompatible with the following materials:
alkalis
reducing materials
organic materials

Hazardous decomposition products : Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Water Nitric acid	LD50 Oral LC50 Inhalation Vapor	Rat Rat	>90 g/kg 244 ppm	- 30 minutes

Conclusion/Summary : Corrosive to the digestive tract. Corrosive to eyes and skin.

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin : Corrosive to the skin.

Eyes : Corrosive to eyes.

Respiratory : May cause slight transient irritation.

Sensitization

Not available.

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Respiratory : No known significant effects or critical hazards.

Mutagenicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Reproductive toxicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Corrosive to eyes on contact. Causes serious eye damage. Eye contact can result in temporary or permanent corneal damage and/or blindness. The full extent of damage to the eyes may not be known for 1 week after injury.

Inhalation : May cause slight transient irritation.

Skin contact : Corrosive to skin on contact. Causes burns. May cause temporary yellow staining of the skin.

Ingestion : Corrosive to the digestive tract. May cause burns to the mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Adverse symptoms may include the following:
coughing
respiratory tract irritation
wheezing and breathing difficulties

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
yellow staining of the skin

Ingestion : Adverse symptoms may include the following:
stomach pains
throat and stomach pain
difficulty swallowing
wheezing and breathing difficulties

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : See above

Potential delayed effects : Skin: scarring
Respiratory Tract: pulmonary edema

Long term exposure

Potential immediate effects : See above

Potential delayed effects : Chronic bronchitis

Potential chronic health effects

Conclusion/Summary : Adverse effects are typically the result of acute overexposure. These effects may be long term or permanent in nature.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Nitric acid	Acute LC50 180 mg/l Marine water Acute LC50 72 mg/l Fresh water	Crustaceans - Carcinus maenas - Adult Fish - Gambusia affinis - Adult	48 hours 96 hours

Conclusion/Summary : Harmful to aquatic organisms.

Persistence and degradability

Conclusion/Summary : Readily biodegradable

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Nitric Acid 5 - 20%	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Nitric Acid 5 - 20%	-2.3	-	low

Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	Mexico Classification	IMDG	IATA
UN number	2031	2031	2031	Not available.	Not available.
UN proper shipping name	NITRIC ACID, other than red fuming, with less than 65% nitric acid	UN2031 - Nitric acid other than red fuming with not more than 20 percent nitric acid	ACIDO NITRICO, excepto el ácido nítrico fumante rojo, con no más de 70% ácido nítrico	Not available.	Not available.

Section 14. Transport information

Transport hazard class(es)	8 	8 	8 	Not available.	Not available.
Packing group	II	II	III	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	**Explosive Limit and Limited Quantity Index** 1 **Passenger Carrying Ship Index** Forbidden **Passenger Carrying Road or Rail Index** Forbidden Classification per the current revision, Transportation of Dangerous Goods Regulation, Part 2, Sec 2.1.	**Reportable quantity** 1000 lbs / 454 kg Packages of less than the reportable quantity are not subject to Hazmat transportation requirements. **Packaging instruction** **Passenger aircraft** Quantity limitation: 1 L **Cargo aircraft** Quantity limitation: 30 L **Special provisions** A6, B2, B47, B53, IB2, T8, TP2	**Special provisions** P001 IBC02 PP81 B15 T8 TP2	-	-

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Section 15. Regulatory information

Canadian lists

Canadian NPRI : The following components are listed: Nitric acid

CEPA Toxic substances : None of the components are listed.

Canada inventory : All components are listed or exempted.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol (Annexes A, B, C, E)

Not listed.

Section 15. Regulatory information

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Inform Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : All components are listed or exempted.

China : All components are listed or exempted.

Europe : All components are listed or exempted.

Japan : All components are listed or exempted.

Malaysia : All components are listed or exempted.

New Zealand : All components are listed or exempted.

Philippines : All components are listed or exempted.

Republic of Korea : All components are listed or exempted.

Taiwan : All components are listed or exempted.

Turkey : Not determined.

U.S. Federal Regulations: : **TSCA 8(a) CDR Exempt/Partial exemption**: Not determined

TSCA 8(b) inventory:: All components are listed or exempted.

Clean Water Act (CWA) 311: Nitric Acid 5 - 20%

Clean Air Act (CAA) 112 regulated toxic substances: Nitric Acid 5 - 20%

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304 Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ (lbs)	SARA 302 TPQ (gallons)	SARA 304 RQ (lbs)	SARA 304 RQ (gallons)
Nitric acid	2 - 20	Yes.	1000	85.7	1000	85.7

SARA 304 RQ : 1000 lbs / 454 kg

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard.
Nitric acid	5 - 20	Yes.	No.	No.	Yes.	No.

SARA 313

Section 15. Regulatory information

	Product name	CAS number	%
Form R - Reporting requirements	Nitric Acid 5 - 20%	7697-37-2	5 - 20
Supplier notification	Nitric Acid 5 - 20%	7697-37-2	5 - 20

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

Massachusetts : The following components are listed: Nitric Acid

New York : The following components are listed: Nitric Acid

New Jersey : The following components are listed: Nitric Acid

Pennsylvania : The following components are listed: Nitric Acid

California Prop. 65 : Not listed.

Section 16. Other information

History

Date of issue/Date of revision : 7/1/2017

Date of previous issue : 6/1/2017

Version : 2.3

Indicates information that has changed from previously issued version.

This Safety Data Sheet has been revised to comply with Hazcom 2012 and WHMIS 2015 requirements.

Prepared by : Agrium Wholesale
Environment, Health, Safety and Security
e-mail: productsafety@agrium.com

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations
HPR = Hazardous Products Regulations

Procedure used to derive the classification

Classification	Justification
CORROSIVE TO METALS - Category 1	Expert judgment
SKIN CORROSION - Category 1A	Expert judgment
SERIOUS EYE DAMAGE - Category 1	Weight of evidence

References : Transportation of Dangerous Goods Act and Clear Language Regulations, current edition at time of (M)SDS preparation, Transport Canada;
Hazardous Products Act and Regulations, current revision at time of (M)SDS preparation, Health Canada;
Domestic Substances List, current revision at time of (M)SDS preparation, Environment Canada;
29 CFR Part 1910, current revision at time of SDS preparation, U.S. Occupational Safety and Health Administration;
40 CFR Parts 1-799, current revision at time of SDS preparation, U.S. Environmental Protection Agency;
49 CFR Parts 1-199, current revision at time of SDS preparation, U.S. Department of Transport;
Threshold Limit Values for Chemical Substances, current edition at time of SDS

Section 16. Other information

preparation, American Conference of Governmental Industrial Hygienists;
NFPA 400, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
NFPA 704, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers;
ERG 2016, Emergency Response Guidebook, U.S. Department of Transport, Transport Canada, and the Secretariat of Transportation and Communications of Mexico
Hazardous Substances Data Bank, current revision at time of SDS preparation, National Library of Medicine, Bethesda, Maryland
Integrated Risk Information System, current revision at time of SDS preparation, U. S. Environmental Protection Agency, Washington, D.C.
Pocket Guide to Chemical Hazards, current revision at time of SDS preparation, National Institute for Occupational Safety and Health, Cincinnati, Ohio ;
Agency for Toxic Substances and Disease Registry Databank, current revision at time of SDS preparation, U.S. Department of Health and Human Services, Atlanta, Georgia
National Toxicology Program, Report on Carcinogens, Division of the National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina.
Registry of Toxic Effects of Chemical Substances. National Institute for Occupational Safety and Health, Cincinnati, Ohio
The Fertilizer Institute, Product Toxicology Testing Program Results, TFI, Washington , D.C., 2003

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