SAFETY DATA SHEET
Nitric Acid, 50 - 70%

Chemical Interchange Company

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product name: NItric Acid, 50 - 70%

Product code(s): Nitric acid, 50 - 70%

Synonyms: Aqua fortis; Hydrogen nitrate; Nitryl hydroxide; Azotic acid; Nitral; Engraver's acid

REACH Registration Number: This material has been registered according to Regulation (EC) 1907/2006.

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

General use: FOR INDUSTRIAL/MANUFACTURING USE ONLY. Intermediate, pH-regulating agents, cleaning products.

Uses advised against: Prevent misuse as precursor for explosives

1.3 Details of the supplier and of the safety data sheet

Manufacturer/Distributor

Chemical Interchange Company
2932 S. Brentwood Blvd.
St. Louis, Missouri 63144 USA
+1-314-962-9002

1.4 Emergency telephone number

Chemtrec - (800) 424-9300, Account #CCN4519 (24 hours)

SECTION 2 - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Product definition: Substance

Classification in accordance with 29 CFR 1910 (OSHA HCS) and Regulation (EC) No 1272/2008

Oxidizing liquid - Category 2 [H272]
Skin corrosion - Category 1A [H314]

2.2 Label elements

Hazard symbol(s):

GHS03 GHS05

Signal word: Danger

Hazard statement(s):
H272 - May intensify fire; oxidizer
H314 - Causes severe skin burns and eye damage

Precautionary Statements:

[Prevention]
P210 - Keep away from heat.
P220 - Keep away from combustible and incompatible materials (see Section 10.5).
P221 - Take any precaution to avoid mixing with reducing agents, combustible materials and organic materials.
P260 - Do not breathe mist, fumes and vapor.
P264 - Wash hands and other skin areas exposed to material thoroughly after handling.
P280 - Wear protective gloves, protective clothing, eye protection and face protection.

[Response]
P301 + P330 + P331 + P310 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
P303 + P361 + P353 - IF ON SKIN (or hair): Remove all immediately all contaminated clothing. Rinse skin with water or shower.
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.
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.
P363 - Wash contaminated clothing before reuse.
P370 + P378 - In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

[Storage]
P405 - Store locked up.

[Disposal]
P501 - Dispose of contents and containers in accordance with national and local regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Corrosive to the respiratory tract

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

% by Weight	Ingredient	CAS Number	EC Number	Index Number	GHS Classification
50 - 70	Nitric Acid	7697-37-2	231-714-2	007-004-00-1	H272, H314

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.

3.2 Mixtures

Not applicable

SECTION 4 - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product mist, fume or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Do not use mouth-to-mouth method if victim inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

Eyes: Do not allow the victim to rub eyes or keep eyes closed. Immediately flush eyes with large amounts of water for at least 30 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after the first 2 minutes and continue rinsing. Seek immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing and continue rinsing for at least 15 minutes. Wash contaminated clothing thoroughly before reuse. Destroy contaminated shoes. Seek immediate medical attention for chemical burns or if irritation persists.

Ingestion: Rinse mouth with water if the victim is conscious. Remove dentures, if present. Give 1 - 2 cupfuls of water or milk to drink if the victim is conscious, alert and able to swallow. DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Obtain immediate medical attention or call a Poison Center.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe eye burns with pain, blurred vision and corneal damage. Material is extremely destructive to the tissue and mucous membranes of the eyes. May cause chemical conjunctivitis and permanent and eye damage. Risk of blindness! NItric acid mist and vapor cause severe eye irritation.

Skin: Corrosive to skin. Causes severe burns that may lead to necrosis and scarring. NItric acid chars the tissue with a characteristic yellow coloration. May cause deep, penetrating ulcers of the skin.

Inhalation: Causes chemical burns to the respiratory tract. May cause spasm, inflammation, acute pulmonary edema, asphyxia, chemical pneumonitis and upper airway obstruction caused by edema of the larynx and bronchi. Inhalation may be fatal. Symptoms of pulmonary edema include coughing and shortness of breath, and may delayed until hours or days, after exposure. May cause systemic effects.

Ingestion: May cause severe and permanent damage to the digestive tract. May cause nausea, vomiting (bloody), severe abdominal pain and severe burns to the mouth, throat and gastrointestinal tract. May cause perforation of the esophagus and stomach. May cause systemic effects.

Chronic: Exposure to high concentrations of nitric acid vapor may cause pneumonitis and pulmonary edema which may be fatal. Continued exposure to vapor and mist of nitric acid may result in chronic bronchitis and more severe exposure results in a chemical pneumonitis. The vapor and mists of nitric acid may erode the teeth, particularly affecting the canines and incisors.

4.3 Indication of any immediate medical attention and special treatment needed

Advice to Doctor and Hospital Personnel

Treat symptomatically and supportively. Effects may be delayed

SECTION 5 - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Use extinguishing media suitable for surrounding material.

Unsuitable methods of extinction: None known

5.2 Special hazards arising from the substance or mixture

Strong oxidizer! Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Product is not combustible; however, it is an oxidizer and its heat of reaction with reducing agents or combustible materials may cause ignition. Releases oxygen upon decomposition, which enhances combustion.

Closed containers may rupture due to the buildup of pressure when exposed to extreme heat. During emergency conditions overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent or may be delayed. Obtain medical attention.

Explosion hazards: Contact with combustible, organic or oxidizable materials may cause combustion.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Cool closed containers with flooding quantities of water until well after the fire is out. If possible, water contaminated by this material should be contained from being discharged to any waterway, sewer or drain to prevent environmental contamination.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate non-essential personnel. Wear appropriate protective clothing designated in Section 8. 2. No not inhale mist, fume or vapor. Ventilate the area. Remove all sources of ignition. No smoking. Clean up spills immediately.

6.2 Environmental precautions

Avoid dispersal of spilled material or runoff and prevent contact with soil and entry into drains, sewers or waterways.

6.3 Methods and materials for containment and cleaning up

Evacuate non-essential personnel. Approach spill from upwind direction. DO NOT flush spill down the drain. Cover drains and contain spill. For small spills *slowly and very carefully* neutralize with sodium bicarbonate, lime or soda ash (it will bubble vigorously) until gas evolution is markedly reduced (pH 6 - 10). Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. DO NOT use combustible materials such as paper towels or straw brooms to clean up spills. Collect material and place into an approved container for proper

disposal. Observe possible material restrictions (Sections 7.2 and 10.5). Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches which lead to waterways. Dispose of via a licensed waste disposal contractor.

For large spills use water fog to dampen cloud of nitric acid fumes and reduce vapours. Do not spray water directly on the leak or nitric acid container. Use protein foam blanket, at least 150 mm thick, to cover nitric acid and thus prevent evaporation into large gas cloud. Use water fog to dampen nitric acid fumes and reduce vapors.

6.4 Reference to other sections

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7 - HANDLING AND STORAGE

7.1 Precautions for safe handling

Wear all appropriate personal protective equipment specified in Section 8.2. Do not get in eyes or on skin or clothing. Do not breathe mist, vapor or fumes. No smoking. If normal use of material presents a respiratory hazard, use only adequate ventilation or wear an appropriate respirator. respirator. Wash contaminated clothing before reuse. Destroy contaminated shoes.

Advice on protection against fire and explosion

Contact with combustible, organic or oxidizable materials may cause combustion.

7.2 Conditions for safe storage, including any incompatibilities

Store in dry, cool, well-ventilated areas away from incompatible materials (see Section 10.5), food and drink. Do not store on wood floors. Store away from strong alkalis, hypochlorites, cyanides, organic and combustible materials. Protect from direct sunlight. Store in corrosive resistant containers with resistant inner liners. Transfer only to approved containers having correct labeling. Keep container tightly closed when not in use. Protect container against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Containers of this material are be hazardous when empty since they retain product residues. Use appropriate containment to avoid environmental contamination. Ventilation is required along the floor. Do not take internally. Keep out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in Section 1.2, no other specific uses are stipulated.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

CAS Number	Ingredient	OSHA PEL	ACGIH TLV	NIOSH
7697-37-2	Nitric Acid	2 ppm, 5 mg/m^3 TWA	2 ppm, 5.2 mg/m^3 TWA 4 ppm, 10 mg/m^3 STEL	2 ppm, 5 mg/m^3 TWA 4 ppm, 10 mg/m^3 STEL 25 ppm IDLH

8.2 Exposure controls

Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. Refer to Section 7.1 for additional data.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking or using the lavatory.

Eye/face protection: Wear safety glasses with side shields or tightly fitting safety goggles and a face shield. Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

Other protective equipment: Wear protective clothing. Wear protective boots if the situation requires.

Respiratory Protection: Wear an approved respirator when handling this product. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls: Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean fit and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

*It is recommended that a full face shield be worn in addition to splash goggles when using this product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, colorless to pale yellow or brown liquid
Odor	Acrid, pungent
Odor Threshold	0.75 - 2.5 ppm
Molecular Weight	63.01 g/mol
Chemical Formula	HNO_3
pH	<1
Freezing Point, Range	-20 to -31.7 °C (-4 to -25 °F)
Boiling Point, Range	117 - 120 °C (243 - 248 °F)
Evaporation Rate	No data available
Flammability (solid, gas)	Non-flammable
Flash Point	Not available
Autoignition Temperature	Not available
Decomposition Temperature	110 ºC (230 ºF)
Lower Explosive Limit (LEL)	Not available
Upper Explosive Limit (UEL)	Not available
Vapor Pressure	9 - 10 mm Hg @ 25 °C
Vapor Density	>1 (Air = 1)
Density	1.3551 - 1.4078 g/ml (11.31 - 11.75 lb/gal) @ 20 °C
Viscosity	2.0 - 2.2 cps
Solubility in Water	Miscible
Partition Coefficient: n-octanol/water	Log Pow = -0.21
Oxidizing Properties	This substance is classified as oxidizing with the Category of 2.
Explosive Properties	Not applicable
Volatiles by Weight @ 21 ºC	No data available

9.2 Other data

No data available

SECTION 10 - STABILITY AND REACTIVITY

10.1 Reactivity

No special reactivity has been reported.

10.2 Chemical stability

Stable under recommended storage conditions. Decomposes in the presence of air, light or organic matter. Yellow-brown color is due to the release of nitrogen dioxide on exposure to light

10.3 Possibility of hazardous reactions

Nitric acid is a strong oxidizer. It attacks many metals producing extremely flammable hydrogen gas, which can form explosive mixtures with air. It is reactive or incompatible with alkalis and metals.

Violent reactions possible with combustible materials, organic solvents, oxidizable substances, alcohols, ketones, aldehydes, acid anhydrides, amines, anilines, nitriles, organic nitro compounds, hydrazine, acetylidenes, metal alloys, metal oxides, alkali metals alkaline earth metals, acids ammonia, hydrides, halogens, nonmetallic oxides, nitrides, hydrogen peroxide, charcoal, turpene and many other substances. Attacks some synthetic materials and rubber.

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid high temperatures, contact with incompatible, organic or combustible materials.

10.5 Incompatible materials

Reacts or is incompatible with over 150 chemical combinations. Refer to NFPA Fire Protection Guide for specifics.

Metals, metal powders, reducing agents, strong bases, acetic acid, alcohols, acetone, aniline, hydrogen sulfide, carbides, anhydrides, organic solvents, combustible materials, chromic acid, flammable liquids, cyanides, sulfides. Incompatible with many other substances.

DO NOT add water to the acid. ALWAYS add the acid to water while stirring to prevent release of heat, steam and fumes.

10.6 Hazardous decomposition products

Thermal decomposition products may include nitrogen oxides and hydrogen nitrate.

SECTION 11 - TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity

LD_{50}, rat: >90 ml/kg; LD_{50}, human: 430 mg/kg

Acute inhalation toxicity

LC_{50}, rat: - 260 mg/m^3, 30 min; LC50, rat - 1302 mg/m^3, 4 h

Acute dermal toxicity

No data available

Skin irritation/corrosion

Causes severe skin burns

Eye irritation/corrosion

Causes severe eye damage. Risk of blindness!

Sensitization
No data available

Genotoxicity in vitro
No data available

Mutagenicity
No data available

Specific organ toxicity - single exposure
Causes severe damage to eyes, skin and respiratory system.

Specific organ toxicity - repeated exposure
Causes severe damage to eyes, skin and respiratory system.

Aspiration hazard
No data available

11.2 Further information

No component of this product is present at levels greater than or equal to the 0.1% threshold (de minimis) is identified as a probable, possible, potential or confirmed carcinogen by ACGIH, IARC, NTP or OSHA. No data is available regarding the mutagenicity or teratogenicity of this material, nor is there available data that indicates that it causes adverse developmental or fertility effects.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12 - ECOLOGICAL INFORMATION

12.1 Toxicity

Large discharges or spills may decrease the pH of aquatic systems to a value <2 which may be fatal to aquatic life and soil micro-organisms.

12.2 Persistence and degradability

Inorganic substances are not biodegradable. Methods for the determination of biodegradability are not applicable to inorganic substances.

12.3 Bioaccumulation potential

This substance is not expected to bioaccumulate.

12.4 Mobility in soil

Highly mobile in soil. During transport through the soil, nitric acid will dissolve some of the soil material, in particular, the carbonate based materials. The acid will be neutralized to some degree with the absorption of the proton also occurring on clay materials. However, significant amounts of acid are expected to remain for transport down toward the ground water table. Upon reaching the ground water table, the acid will continue to move, now in the direction of ground water flow.

12.5 Results of PBT and vPvB assessment

Not applicable for inorganic substances

12.6 Other adverse effects

Additional ecological information

Do not allow material to run into surface waters, wastewater or soil.

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Methods of disposal: The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

RCRA P-Series: No listing

RCRA U-Series: No listing

SECTION 14 - TRANSPORT INFORMATION

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

US DOT (Domestic Ground Transportation)

Proper Shipping Name:	Nitric Acid (other than red fuming, with at least 65%, but not more than 70% nitric acid)
Hazard Class:	8, 5.1
UN/NA:	UN2031
Packing Group:	II
NAERG:	Guide #157
Packaging Authorization:	Non-Bulk: 49 CFR 173.158; Bulk: 173.242
Packaging Exceptions:	NONE

IMO/IMDG (Water Transportation)

Proper Shipping Name:	Nitric Acid (other than red fuming, with at least 65%, but not more than 70% nitric acid)
Hazard Class:	8, 5.1
UN/NA:	UN2031
Packing Group:	II
Marine Pollutant:	No
EMS Number:	F-A, S-B

ICAO/IATA (Air Transportation)

Proper Shipping Name:	Nitric Acid (other than red fuming, with at least 65%, but not more than 70% nitric acid)
Hazard Class:	8, 5.1
UN/NA:	UN2031
Packing Group:	II
Quantity Limitations:	49 CFR 175.27 and 175.75 - Cargo Aircraft Only: 30 l; Passenger Aircraft: Forbidden

RID/ADR (Rail Transportation)

Proper Shipping Name:	Nitric Acid (other than red fuming, with at least 65%, but not more than 70% nitric acid)
Hazard Class:	8, 5.1
UN/NA:	UN2031
Packing Group:	II

SECTION 15 - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material is classified as hazardous in accordance with OSHA 29 CRF 1910.1200.

OSHA Process Safety Management Standard: This substance is not regulated under OSHA PSM Standard 29 CFR 1910.119.

EPA Risk Management Planning Standard: This substance is not regulated under EPA RMP Standard (RMP) 40 CFR Part 68.

EPA Federal Insecticide, Fungicide and Rodenticide Act: This substance is not a registered Pesticide under the FIFRA, 40 CFR Part 150.

Toxic Substance Control Act (TSCA) Inventory: The components of this product are listed on the TSCA Inventory. This material is subject to TSCA 12(b) Export Notification.

Drug Enforcement Administration (DEA) List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.4(f)(2)) and Chemical Code Number
Not listed

Drug Enforcement Administration (DEA) Lists 1 & 2, Exempt Chemical Mixtures (21 CFR 1310.12(c)) and Code Number
Not listed

Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) Chemicals
Nitric Acid (CAS #7697-37-2)

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: Fire Hazard, Reactivity Hazard, Acute Health Hazard

SARA 313 Information: Nitric Acid (CAS #7697-37-2) is subject to reporting requirements of Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: Nitric Acid (CAS #7697-37-2) is subject to reporting requirements of these sections of Title III of SARA. TPQ = 453.6 kg (1000 lb)

SARA 302/304 Emergency Planning & Notification: Nitric Acid (CAS #7697-37-2) is subject to reporting requirements of these sections of Title III of SARA. TPQ = 453.6 kg (1000 lb)

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substances.
Nitric Acid, 50 - 70% (CAS #7697-37-2), RQ - 453.59 kg (1,000 lbs)

Clean Air Act (CAA)
This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).
This product does not contain any Class 1 Ozone depletors.
This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)
Nitric Acid (CAS #7697-37-2) is listed as a Hazardous Substance under the CWA.
None of the chemicals in this product are listed as Priority Pollutants under the CWA.
None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986
This product contains no chemical(s) known to the State of California to cause cancer or other reproductive harm.

Other U.S. State Inventories
Nitric Acid (CAS #7697-37-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air Pollutants lists: CA, DE, ID, IL, ME, MA, MN, NC, NJ, NY, PA, RI, WA, WI.

Canada May intensify fire; oxidizer; Causes severe skin burns and eye damage; Causes severe damage to the respiratory system.

WHMIS Hazard Symbol and Classification
Nitric Acid (CAS #7697-37-2) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists and/or Air Quality/Air

Canadian National Pollutant Release Inventory (NPRI): Nitric Acid (CAS #7697-37-2) is listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 1 (low hazard to waters)

Global Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
Canada	Domestic Substance List (DSL).	No
Canada	Non-Domestic Substance List (NDSL).	No
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
United States	Toxic Substance Control Act (TSCA)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes

*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.
No - One or more components of this product are not on the inventory or are exempt from listing.

Global Chemical Inventory Lists (continued)

Country	Inventory Name	Inventory Listing*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (KECL)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*Yes - All components of this product are in compliance with the inventory requirements administered by the governing country.
No - One or more components of this product are not on the inventory or are exempt from listing.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16 - OTHER INFORMATION

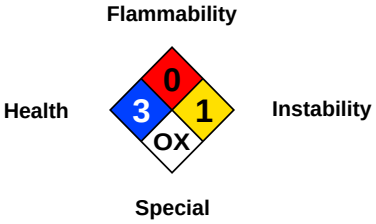
Hazardous Material Information System (HMIS)

C = safety glasses, gloves and an apron

HMIS Hazard Rating Legend
0 = Minimal 1 = Slight 2 = Moderate 3 = Serious
4 = Severe * = Chronic Health Hazard

NFPA Hazard Rating Legend
0 = Insignificant 1 = Slight 2 = Moderate
3 = High 4 = Extreme
OX = oxidizer

National Fire Protection Association (NFPA)



Abbreviation Key

ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord Dangereux Routier (European regulations concerning the international transport of dangerous goods by road)
CAS	Chemical Abstract Services
CFR	Code of Federal Regulations
DOT	Department of Transportation
EC_{50}	Half Maximal Effective Concentration
EMS Guide	Emergency Response Procedures for Ships Carrying Dangerous Goods
EPA	Environmental Protection Agency
ErC_{50}	Reduction of Growth Rate
ERG	Emergency Response Guide Book
FDA	Food and Drug Administration
GHS	Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transportation
IC_{50}	Half Maximal Inhibitory Concentration
ICAO	International Civil Aviation Organization
IDLH	Immediately Dangerous to Life and Health
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC_{50}	50% Lethal Concentration
LD_{50}	50% Lethal Dose
LD_{Lo}	Lowest Lethal Dose
mppcf	Millions of Particles Per Cubic Foot
NA	North America
NAERG	North American Emergency Response Guide Book
NIOSH	National Institute for Occupational Safety
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PBT	Persistent, Bioaccumulating and Toxic
PEL	Permissible Exposure Limit
PMCC	Pensky-Martens Closed Cup
ppm	Parts Per Million
RCRA	Resource Conservation and Recovery Act
RID	Dangerous Goods by Rail
RQ	Reportable Quantity
TCC/Tag	Tagliabue Closed Cup
TLV	Threshold Limit Value
TSCA	Toxic Substance Control Act
TWA	Time-Weighted Average
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulating
WHMIS	Workplace Hazardous Materials Information System

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