

Revision date: 05.2015 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name/designation:	Nitric acid, BDH Aristar [®] Plus Nitric acid, BDH Aristar [®] Ultra
Product No.:	87003-259, 87003-261 87003-226, 87003-228, 87003-658
Other means of identification:	EU Index # 007-004-00-1

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

Relevant identified uses: For laboratory use only. Not for drug, food, or household use.

1.3. Details of the supplier of the safety data sheet

Manufactured for	VWR International, LLC Radnor Corporate Center 100 Matsonford Road Radnor, PA 19087-8660	VWR International Co 2360 Argentia Road Mississauga, ON L5N 5Z7 CANADA
Telephone	610.386.1700	800.932.5000

1.4. Emergency Telephone number

CHEMTREC	800.424.9300
CANUTEC	613.996.6666

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) and WHMIS HPR

For the full text of the H-Statement(s) and P-Statement(s) mentioned in this Section, see Section 16.

Hazard classes and hazard categories	Hazard statements
Skin corrosion, category 1A	H314
Oxidizing liquid, category 3	H272
Corrosive to metals, category 1	H290

2.2. GHS Label elements, including precautionary statements

Pictograms:



Signal word: Danger

Hazard statements	
H314	Causes severe skin burns and eye damage.
H272	May intensify fire; oxidizer.

Precautionary statements	
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P501	Dispose of contents/containers in accordance with local, state and federal regulations.

2.4. Hazards not otherwise classified (HNOC) or not covered by GHS or WHIMS

None known.

SECTION 3: Composition / information on ingredients

3.1. Hazard components

Chemical name	Formula	Molecular weight	CAS#	Weight%
Nitric acid	HNO ₃	63.01	7697-37-2	60-70%
Water	H ₂ O	18.02	7732-18-5	Balance

SECTION 4: First aid measures

4.1. General information

In case of inhalation: Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment, use the "buddy" system). Remove source of contamination or move victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel, preferably on a doctor's advice. Do not allow victim to move about unnecessarily. Symptoms of pulmonary edema can be delayed up to 48 hours after exposure. Immediately transport victim to an emergency care facility.

In case of skin contact: Avoid direct contact with this chemical. Wear chemical protective clothing, if necessary. Immediately remove contaminated clothing, shoes, and leather goods. As quickly as possible, flush contaminated area with lukewarm, gently running water for at least 20-30 minutes, by the clock. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting. Immediately transport victim to an emergency care facility. Discard contaminated clothing, shoes and leather goods. Keep contaminated clothing under water in a closed container until it can be safely discarded.

In case of eye contact: Avoid direct contact. Wear chemical protective gloves, if necessary. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, holding the eyelid(s) open. Neutral saline may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep

emergency vehicle waiting. Take care not to rinse contaminated water into the unaffected eye or onto the face. If irritation persists, repeat flushing. Quickly transport victim to an emergency care facility. Do NOT allow victim to rub or keep eyes closed.

In case of ingestion: NEVER give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Have victim rinse mouth thoroughly with water. DO NOT INDUCE VOMITING. Have victim drink 8 to 10 oz. of water. If milk is available, it may be administered after the water has been given. If vomiting occurs naturally, repeat administration of water. Quickly transport victim to an emergency facility.

4.2. Most important symptoms and effects, both acute and delayed

Nitric acid poses a very serious inhalation hazard. Symptoms of exposure include dryness of the nose and throat, cough, chest pain, shortness of breath and difficulty breathing. Causes lung injury—effects may be delayed. CORROSIVE to the eyes, skin and respiratory tract. Causes severe burns. May cause permanent eye injury or blindness and permanent scarring.

4.3. Indication of any immediate medical attention and special treatment needed

Consult a doctor and/or the nearest Poison Control Centre for all exposures except minor instances or inhalation or skin contact.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Nitric acid does not burn. Extinguish fire using extinguishing agent suitable for the surrounding fire and not contraindicated for use with nitric acid. Nitric acid is an oxidizer. Therefore, flooding quantities of water spray or fog should be used to fight fires involving nitric acid. DO NOT use dry chemical powders containing sodium bicarbonate, potassium bicarbonate, sodium carbonate, calcium carbonate, ammonium phosphate or ammonium sulfate. Nitric acid can react violently with these extinguishing agents.

5.2. Special hazards arising from the substance or mixture

Nitric acid is a strong OXIDIZING AGENT and is a serious fire and explosion hazard. Nitric acid can cause combustible materials such as wood, paper, cotton, wool, cloth, oils and grease to ignite spontaneously and will support, accelerate and intensify the burning of combustible materials in a fire. Can react with many metals, particularly in powdered form, to form extremely flammable hydrogen gas. Generates heat when mixed with water. During a fire, nitric acid decomposes with the release of corrosive nitrogen oxide gases. Explosive decomposition may occur under fire conditions and closed containers may rupture violently due to rapid decomposition, if exposed to fire or excessive heat for a sufficient period of time.

5.3. Special protective equipment for firefighters

Nitric acid and its decomposition products are corrosive and toxic. Do not enter without wearing specialized protective equipment suitable for the situation. Firefighter's normal protective equipment (Bunker Gear) will not provide adequate protection. Chemical protective clothing (e.g. chemical splash suit and positive pressure self-contained breathing apparatus (NIOSH approved or equivalent) may be necessary.

5.4. Hazardous combustion products

Liquid decomposes to a limited extent when heated, producing corrosive nitrogen oxides.

5.5. Advice for firefighters

Extreme caution is required in a fire situation. Evacuate area and fight fire from a protected, explosion-resistant location or maximum possible distance. Approach fire from upwind to avoid hazardous decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Remove or isolate flammable and combustible materials. Ventilate area. Dangerous levels of nitrogen oxides may form during spills of nitric acid. Consider evacuation of down-wind areas. Wear adequate personal protective equipment. Extinguish or remove all ignition sources.

6.2. Environmental precautions

Notify government occupational health and safety and environmental authorities.

6.3. Methods and material for containment and cleaning up

Do not touch spilled material. Prevent material from entering sewers, waterways or confined spaces. Keep materials which can burn away from spilled material. Stop or reduce leak if safe to do so. Contain spill with earth, sand, or absorbent material which does not react with spilled material. Do not use sawdust or other organic materials, which will react with nitric acid creating a fire or health hazard.

SMALL SPILLS: Soak up spill with absorbent material which does not react with spilled chemical. Put material in suitable, covered, labeled containers. Flush area with large quantities of water. Contaminated absorbent material will pose the same hazards as the spilled product.

Only trained personnel should attempt to neutralize spills. Neutralizing spill with sodium bicarbonate, sodium carbonate or calcium carbonate will produce large amounts of carbon dioxide gas. Ensure adequate ventilation.

LARGE SPILLS: Evacuate area. Contact fire and emergency services and supplier for advice.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

This material is a STRONG OXIDIZER. This material is also CORROSIVE (to eyes, skin and respiratory tract). Before handling, it is extremely important that engineering controls are operating and that protective equipment requirements and personal hygiene measures are being followed. People working with this chemical should be properly trained regarding its hazards and its safe use. Maintenance and emergency personnel should be advised of potential hazards. Unprotected persons should avoid all contact with this chemical including contaminated equipment. Immediately report leaks, spills or failures of the engineering controls. If nitric acid is released, immediately put on a suitable respirator and leave the area until the severity of the release is determined. In case of leaks or spills, escape-type respiratory protective equipment should be available in the work area.

Be aware of typical signs and symptoms of poisoning and first aid procedures. Any signs of illness should be reported immediately to supervisory personnel. Seek medical attention for all exposures even if an exposure did not seem excessive. Symptoms of a severe exposure can be delayed.

Avoid contact with all incompatible materials. Nitric acid is a strong acid, a strong oxidizer and is very reactive. It is not combustible but it readily enhances the combustion of other substances. Nitric acid may react violently or explosively with many organic and inorganic chemicals. Flammable hydrogen gas is released on contact with many common metals, particularly metal in powdered form. Significant heat is generated upon contact with water. See Section 10 for more information.

Avoid generating vapors or mists. Prevent the release of vapors or mists into the workplace. If possible, use closed handling systems for processes involving this material. If a closed handling system is not possible, use the smallest possible amounts in a well-ventilated area, separate from the storage area. Ensure that handling systems are corrosion-resistant. Inspect containers for damage or leaks before handling. Label containers. Handle containers

carefully to avoid damage. Keep containers tightly closed when not in use to avoid spillage, vapor release or contamination of the contents. Never return unused or contaminated material to its original container.

Cautiously, dispense into sturdy containers made of compatible materials. Use corrosion-resistant transfer equipment when dispensing. Secondary protective containers must be used when this material is being carried. When diluting, always add acid to cold water slowly and in small amounts. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing.

Always assume that empty containers contain hazardous residues. Never reuse empty containers, even if they appear to be clean. Do not perform any welding, cutting, soldering, drilling or other hot work on an empty vessel, container or piping until all material has been cleared. Have suitable emergency equipment for fires, spills and leaks readily available. Practice good housekeeping. Maintain handling equipment. Comply with applicable regulations.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight and away from heat. Keep quantities stored as small as possible. Store away from incompatible materials such as flammable materials, oxidizing materials, reducing materials, and strong bases. See Section 10 for more information.

Use corrosion-resistant structural materials, lighting and ventilation systems in the storage area. Wood and other organic/combustible materials should not be used on floors, structural materials and ventilation systems in the storage area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep storage area separate from work areas. Post warning signs.

Inspect all incoming containers to make sure they are properly labeled and not damaged. Suitable storage may include glass bottles and carboys. Protect the label and keep it visible. Keep containers tightly closed when not in use and when empty. Protect from damage. Store containers at a convenient height for handling, below eye level if possible. Inspect storage area regularly for deficiencies, including damaged or leaking containers, signs of corrosion or poor housekeeping.

Keep absorbents for leaks and spills readily available. Contain spills or leaks by storing in trays made from compatible materials. Provide raised sills or ramps at doorways or create a trench which drains to a safe location.

Keep empty containers in separate storage area. Assume that empty containers contain hazardous residues. Keep tightly closed. Avoid bulk storage indoors. Storage tanks should be above ground and surrounded with a dike capable of holding entire contents.

Store oxidizing materials according to the occupational health and safety regulations and fire and building codes which will describe the kind of storage area and the type of storage containers for a specified amount of the material. Have appropriate fire extinguishers available in and near the storage area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Limit Value Type	Exposure Limit Value	Source
Nitric acid	TLV-TWA	2 ppm	USA ACGIH
	PEL-T-TWA, REL-TWA	2 ppm (5 mg/m ³)	USA OSHA, USA NIOSH
	TLV-STEL, REL-STEL	4 ppm	USA ACGIH, USA NIOSH
Water	None listed.	None listed.	Not applicable

8.2. Exposure controls

Appropriate engineering controls: Engineering methods to control hazardous conditions are preferred. Methods include mechanical ventilation (dilution and local exhaust), process or personnel enclosure, control of process conditions, and process modification (e.g., substitution of a less hazardous material). Administrative controls and

personal protective equipment may also be required.

Because of the high potential hazard associated with this substance, stringent control measures such as enclosure or isolation may be necessary. Use a corrosion-resistant local exhaust ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside. Supply sufficient replacement air to make up for air removed by exhaust system. Treatment of exhaust emissions to prevent environmental contamination may be required. NOTE: Do not use organic or combustible materials such as wood in the construction of ventilation or control systems.

Personal protective equipment:

Eye/face protection: Chemical safety goggles. A face shield may also be necessary.

Skin protection: Chemical protective gloves, coveralls, boots, and/or other chemical protective clothing to prevent all possible contact. Have a safety shower/eye-wash fountain readily available in the immediate work area.

Respiratory protection: NIOSH/OSHA RECOMMENDATIONS FOR NITRIC ACID CONCENTRATIONS IN AIR:

UP TO 25 ppm: SAR operated in a continuous-flow mode; or full face piece chemical cartridge respirator with cartridge(s) to protect against nitric acid; or gas mask with canister to protect against nitric acid; or full face piece SCBA; or full face piece SAR.

EMERGENCY OR PLANNED ENTRY INTO UNKNOWN CONCENTRATION OR IDLH CONDITIONS: Positive pressure, full face piece SCBA; or positive pressure, full face piece SAR with an auxiliary positive pressure SCBA.

ESCAPE: Gas mask with canister to protect against nitric acid; or escape-type SCBA.

Hygiene measures: Remove contaminated clothing immediately. Keep contaminated clothing thoroughly wet or immersed in water in closed containers. Discard or launder before re-wearing. Inform laundry personnel of contaminant's hazards. Do not eat or drink in work areas. Wash hands thoroughly after handling this material. Maintain good housekeeping.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

a) Appearance:	
Physical state	Liquid
Color	Clear, colorless to yellow
b) Odor	Strong – acrid odor
c) Odor threshold	0.29 - 0.98 ppm (detection)
d) pH	1.0 (0.1 M solution)
e) Melting point/freezing point	70% (w/w): -41 °C (-42 °F)
f) Boiling point/boiling range	60% (w/w): 118.2 °C (244.76 °F); 68% w/w: 120.5 °C (248.9 °F); 70% (w/w): 119.3 °C (246.74 °F)
g) Flash point	Not combustible (does not burn).
h) Evaporation rate	No information available.
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability/explosive limits	Not applicable
k) Vapor pressure	(Partial pressure at 20 °C): 60% (w/w): 0.12 kPa (0.90 mm Hg); 70% (w/w): 0.37 kPa (2.78 mm Hg)
l) Vapor density	2.17 (air = 1) (calculated)
m) Relative density (at 20 °C)	60% (w/w): 1.3667 g/mL; 68% w/w: 1.41 g/mL; 70% (w/w): 1.4134 g/mL

n) Solubilities	Soluble in all proportions in water. Reacts with many organic solvents (e.g. alcohols, ketones, ethers, and esters).
o) Partition coefficient (n-Octanol/Water)	Log P(oct) = 0.21 (estimated)
p) Auto-ignition temperature	Not applicable
q) Decomposition temperature	No information available.
r) Viscosity	Not available for nitric acid concentrations of 70% and less.
s) Explosive properties	Not applicable
t) Oxidizing properties	Class 1 oxidizer (nitric acid more than 40% but less than 80%)

SECTION 10: Stability and reactivity

10.1. Reactivity

The National Fire Prevention Association (NFPA) lists nitric acid (40% or less) as a Class 1 Oxidizer and nitric acid (more than 40% but less than 80%) as a Class 2 Oxidizer. NFPA defines an oxidizer as any material that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials and can undergo a vigorous self-sustained decomposition due to contamination or heat exposure. NFPA rates oxidizers on a scale of Class 4 to Class 1, with Class 4 being the most severe and Class 1 the least severe. Class 1 Oxidizers do not moderately increase the burning rate of combustible materials with which they come into contact. Class 2 Oxidizers cause a moderate increase in the burning rate of combustible materials with which they come into contact.

10.2. Chemical stability

Normally stable. Nitric acid has a tendency to slowly decompose at room temperature to form nitrogen oxides, which may color the acid yellow or red. The decomposition is accelerated by exposure to light and increases in temperature.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur. See Section 10.5 for incompatible materials.

10.4. Conditions to avoid

Air, light, high temperatures.

10.5. Incompatible materials

MOST METALS particularly POWDERED METALS (e.g. antimony, bismuth, germanium, manganese or titanium), ALKALI METALS (e.g. lithium or sodium) or ALKALINE EARTH METALS (e.g. magnesium or calcium) - may react violently or explosively, and/or cause fire, with generation of extremely flammable hydrogen gas.

ORGANIC CHEMICALS (e.g., alcohols, acids, anhydrides, aldehydes, ketones, amines, ethers, hydrocarbons, alkanethiols, nitriles, nitroalkanes and nitroaromatics) - may react violently or explosively, and/or ignite spontaneously.

NON-METALS (e.g. arsenic, boron, finely divided carbon, phosphorus or silicon), NON-METAL HYDRIDES (e.g. arsine, phosphine, stibine or tetraborane) or REDUCING AGENTS (e.g. potassium phosphinate) - may react violently or explosively and ignite.

CROTONALDEHYDE, HYDRAZINE, DIMETHYLHYDRAZINE, DIVINYL ETHER, PYROCATECHOL - ignite spontaneously (hypergolic) on contact with concentrated nitric acid, the ignition delay being 1 millisecond (ms).

AMMONIA, ANILINE, DIBORANE, FURFURYL ALCOHOL or TERPENES - mixtures are self-igniting.

SULFIDES (e.g. sodium or potassium sulfide) - toxic and flammable hydrogen sulfide gas and toxic sulfur dioxide gas may be generated.

CARBIDES (e.g. cesium carbide), FLUORINE, PHOSPHORUS HALIDES (e.g. phosphorus trichloride) or OTHER

PHOSPHORUS COMPOUNDS (e.g. cadmium phosphide) - may ignite and/or explode.

METAL CYANIDES (e.g. sodium cyanide, potassium cyanide or calcium cyanide) - mixture produces a violent reaction, with formation of very toxic and flammable hydrogen cyanide.

SULFUR HALIDES (e.g. sulfur dichloride or disulfur dibromide) - interaction is violent, with generation of the corresponding hydrogen halide.

10.6. Hazardous decomposition products

Nitrogen oxides

SECTION 11: Toxicology

11.1. Information on toxicological effects

Acute toxicity

Oral LD50: No information available.

Inhalation LC50: 260 mg/m³/30M (rat)

Dermal LD50: No information available.

Other information on acute toxicity: RTECS# QU5775000

Skin corrosion/irritation: Nitric acid is corrosive. Corrosive materials are capable of producing severe burns, blisters, penetrating ulcers, and permanent scarring, depending on the concentration of the solution and duration of contact. Concentrated solutions produce burns, lower concentrations cause a change in skin color from yellow to brown, and dilute solutions cause mild irritation and hardening of the skin.

Serious eye damage/eye irritation: Nitric acid is corrosive. Corrosive materials are capable of producing severe eye burns and permanent injury, including blindness, depending on the concentration of the solution and duration of contact.

Respiratory or skin sensitization: There is evidence that some people with asthma may be more sensitive to acid aerosols than healthy individuals. Nitric acid is a prevalent air pollutant and has the potential to cause adverse respiratory effects through acidification and oxidation reactions.

Germ cell mutagenicity: No information available.

Carcinogenicity: There is insufficient information available to evaluate the potential of nitric acid to cause cancer.

Reproductive toxicity: No information available.

Specific target organ toxicity-single exposure: No information available.

Specific target organ toxicity-repeated exposure: No information available.

Aspiration hazard: No information available.

Additional information: Long-term exposure to corrosive materials such as nitric acid can cause skin and respiratory irritation, with the possible development of lung injury (e.g. chronic bronchitis). Exposure to nitric acid vapors, mists or aerosols may cause dental erosion and jaw necrosis. To the best of our knowledge the chronic toxicity of this substance has not been fully investigated.

SECTION 12: Ecological information

12.1. Ecotoxicity: Mosquito fish (*Gambusia affinis*): LC50 = 72 mg/L/96H

12.2. Persistence and degradability: Nitric acid will be gradually neutralized by hardness minerals (calcium and magnesium) in water. The nitrate ion may persist longer but will ultimately be consumed as a plant nutrient.

12.3. Bioaccumulative potential: Bioaccumulation is not anticipated for inorganic compounds that are miscible with water.

12.4. Mobility in soil: No information available.

12.5. Results of PBT and vPvB assessment: Not applicable for inorganic substances.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Review federal, provincial and local government requirements prior to disposal. Authorities may not permit disposal of waste nitric acid until certain neutralization standards have been achieved. Store material for disposal as indicated in Storage Conditions. Disposal by secure landfill may be acceptable.

SECTION 14: Transport information

Land Transport DOT (U.S.)

UN Number	UN2031
Proper Shipping Name	NITRIC ACID other than red fuming, with at least 65 percent, but not more than 70 percent nitric acid
Class(es)	8
Hazard Label(s)	Corrosive
Packing Group	II
Environmental Hazard(s)	--

Sea Transport IMDG

UN Number	UN2031
Proper Shipping Name	NITRIC ACID other than red fuming, with at least 65% but with not more than 70% nitric acid
Class(es)	8 (5.1)
Hazard Label(s)	Corrosive & Oxidizer
EMS- No.	F-A, S-Q
Packing Group	II
Environmental Hazard(s)	--
Segregation Group	Category D

Air Transport IATA

UN Number	UN2031
Proper Shipping Name	Nitric acid other than red fuming, with $\geq 65\%$ but $\leq 70\%$ nitric acid
Class(es)	8 (5.1)
Hazard Label(s)	Corrosive & Oxidizer
Packing Group	II

SECTION 15: Regulatory information

OSHA Hazards: CAS #7697-37-2 meets criteria for hazardous material, as defined by 29 CFR 1910.1200.

SARA 302 Extremely Hazardous Substances: This material contains Nitric acid (CAS# 7697-37-2), which is subject to the reporting requirement of 1,000 lbs RQ.

SARA 313 (TRI reporting): This material contains Nitric acid (CAS# 7697-37-2), which is subject to the reporting requirements of Section 313 of SARA Title III.

SARA 311/312 Hazardous Chemicals: This material contains Nitric acid (CAS# 7697-37-2).

Massachusetts Right-To-Know Substance List: CAS# 7697-37-2 is listed, 50 lbs RQ.

Pennsylvania Right-To-Know Hazardous Substances: CAS# 7697-37-2 is listed, E (environmental hazard).

New Jersey Worker and Community Right-To-Know Components: CAS# 7697-37-2 is listed, RTK# 1356.

California Proposition 65: CAS# 7697-37-2 is not subject to this act. CAS# 10024-97-2 (Nitrous oxide, decomposition product) is subject to this act, type of toxicity: developmental, female. CAS# 7732-18-5 is not subject to this act.

Inventory Status:

Canada DSL/NDSL Inventory List: CAS# 7697-37-2 is listed. CAS# 7732-18-5 is listed.

US TSCA Inventory List: CAS# 7697-37-2 is listed. CAS# 7732-18-5 is listed.

EINECS, ELINCS or NLP: CAS# 7697-37-2 is listed, EC# 231-714-2. CAS# 7732-18-5 is listed, EC# 231-791-2.

SECTION 16: Other information

Full text of H-Statement(s) and P-Statement(s)

H314	Causes severe skin burns and eye damage.
H272	May intensify fire; oxidizer.
H290	May be corrosive to metals.
P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P220	Keep/Store away from clothing and other combustible materials.
P221	Take any precaution to avoid mixing with combustibles.
P234	Keep only in original container.
P260	Do not breathe fumes/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use most appropriate extinguishing media for the surrounding fire, such as flooding quantities of water spray or fog, for extinction.
P390	Absorb spillage to prevent material damage.
P405	Store locked up.
P406	Store in corrosion resistant container with a resistant inner liner.
P501	Dispose of contents/containers in accordance with local, state and federal regulations.

Canadian Carcinogenicity hazard class: Not applicable.

PHNOC hazard class: Not applicable.

HHNOC hazard class: Not applicable.

Biohazardous Infectious Materials hazard class: Not applicable.

NFPA Rating:

Health: 4

Flammability: 0

Reactivity: 0

Special Hazard: Oxidizing material



DISCLAIMER

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. VWR International and its Affiliates shall not be held liable for any damage resulting from handling.