



Be Right™

SAFETY DATA SHEET

Issue Date 01-Nov-2018

Revision Date 21-Jun-2024

Version 1.6

Section 1: Identification

Product identifier

Product Name Nitrate LR TNT Reagent A
Product Code(s) TNT835A-AU

Other means of identification

Safety data sheet number M01920

Recommended use of the chemical and restrictions on use

Recommended Use Determination of nitrate.

Uses advised against Consumer use

Details of manufacturer or importer

Supplier

HACH Pacific, 26 Brindley Street, Dandenong South, VIC 3175, Australia, Tel: 1300 887 735

Manufacturer

Hach Company, P.O. Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

13 11 26

Section 2: Hazard(s) identification

GHS Classification

Flammable liquids	Category 3 - (H226)
Serious eye damage/eye irritation	Category 2A - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H336)

Label elements

Flame

Exclamation mark



Signal word - WARNING

Hazard statements

H226 - Flammable liquid and vapor
H319 - Causes serious eye irritation
H336 - May cause drowsiness or dizziness

Hazard statements

Repeated exposure may cause skin dryness or cracking

Precautionary statements

P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242 - Use only non-sparking tools
P243 - Take precautionary measures against static discharge
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish
P403 + P235 - Store in a well-ventilated place. Keep cool

Other hazards which do not result in classification

Causes mild skin irritation

None known

Section 3: Composition and information on ingredients

Chemical Family Mixture

Substance

Not applicable

Mixture

Chemical nature Aqueous solution of organic and inorganic salts.

Chemical name	Formula	CAS No.	Percent Range
Isopropyl alcohol	C ₃ H ₈ O	67-63-0	20 - 30%
Isoamyl acetate	C ₇ H ₁₄ O ₂	123-92-2	<1%

Section 4: First aid measures**Emergency telephone number**

Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Description of necessary first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	IF exposed or concerned: Get medical advice/attention. Remove to fresh air.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

For emergency responders

Self-protection of the first aider	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing.
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Most important symptoms/effects, acute and delayed

Symptoms	Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
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Indication of immediate medical attention and special treatment needed, if necessary

Note to physicians	Treat symptomatically.
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Section 5: Firefighting measures**Extinguishing media**

Suitable extinguishing media	Dry chemical. Carbon dioxide (CO ₂). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	CAUTION: Use of water spray when fighting fire may be inefficient

Specific hazards arising from the chemical

Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Flammable properties

Flammable; may be ignited by heat, sparks or flames Flammable liquid

Explosive properties

Not classified according to GHS criteria.

Hazardous combustion products	Carbon monoxide, Carbon dioxide.
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Specific/special fire-fighting measures

No information available.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from and upwind of spill/leak. See section 8 for more information. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Other Information	Use personal protective equipment as required. Ventilate the area. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations. See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.
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Precautions for safe handling

General hygiene considerations	Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.
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Conditions for safe storage, including any incompatibilities

Storage Conditions Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents, strong acids, and strong bases.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits

Chemical name	Australia
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	TWA: 400 ppm TWA: 983 mg/m ³ STEL: 500 ppm STEL: 1230 mg/m ³
Isoamyl acetate (<1%) CAS#: 123-92-2	TWA: 50 ppm TWA: 270 mg/m ³ STEL: 100 ppm STEL: 541 mg/m ³

Biological occupational exposure limits

Legend See section 16 for terms and abbreviations

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand protection Impervious gloves. Wear suitable gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

Eye/face protection Tight sealing safety goggles.

Skin and body protection Long sleeved clothing. Chemical resistant apron. Antistatic boots. Wear suitable protective clothing. Avoid contact with eyes, skin and clothing.

General hygiene considerations Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid	Color	colorless
Appearance	aqueous solution	Odor threshold	No data available
Odor	Aromatic		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	No data available	
pH	6	@ 20 °C
Melting point / freezing point	~ -3 °C / 26.6 °F	
Initial boiling point and boiling range	82 °C / 179.6 °F	
Evaporation rate	1.03 (water = 1)	
Vapor pressure	22.052 mm Hg / 2.94 kPa at 25 °C / 77 °F	
Relative vapor density	0.73	
Specific gravity - VALUE 1	0.95	
Partition coefficient	Not applicable	
Soil Organic Carbon-Water Partition Coefficient	Not applicable	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	No data available	
Kinematic viscosity	No data available	

Solubility(ies)**Water solubility**

<u>Water solubility classification</u>	<u>Water solubility</u>	<u>Water Solubility Temperature</u>
Completely soluble	> 10000 mg/L	20 °C / 68 °F

Solubility in other solvents

None reported	No information available	No data available	No information available
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Other information**Metal Corrosivity**

Steel Corrosion Rate	No data available
Aluminum Corrosion Rate	No data available

Volatile Organic Compounds (VOC) Content

See ingredients information below

<u>Chemical name</u>	<u>CAS No.</u>	<u>Volatile organic compounds (VOC) content</u>	<u>CAA (Clean Air Act)</u>
Isopropyl alcohol	67-63-0	100%	X

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Isoamyl acetate	123-92-2	No data available	X

Explosive properties

Upper explosion limit
Lower explosion limit

No data available
No data available

Flammable properties

Flash point
Method

26 °C / 78.8 °F
DIN 51755 Part 1

Flammability Limit in Air

Upper flammability limit:
Lower flammability limit:

No data available
No data available

Oxidizing properties

No data available.

Bulk density

No data available

Section 10: Stability and reactivity**Reactivity**

Not applicable.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge Yes.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

Section 11: Toxicological information**Information on likely routes of exposure****Product Information**

Inhalation	May cause irritation of respiratory tract. May cause drowsiness or dizziness.
Eye contact	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	May cause irritation. Prolonged contact may cause redness and irritation. Causes mild skin irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms	May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

No data available.

Ingredient Acute Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Rat LD ₅₀	4710 mg/kg	None reported	Behavioral General anesthetic	OECD 429: Skin Sensitization: Local Lymph Node Assay
Isoamyl acetate (<1%) CAS#: 123-92-2	Rat LD ₅₀	16600 mg/kg	None reported	None reported	RTECS

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Rabbit LD ₅₀	4059 mg/kg	None reported	None reported	LOLI

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Rat LC ₅₀	72.6 mg/L	4 hours	Behavioral General anesthetic Lungs, Thorax, or Respiration Other changes	RTECS

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	15,362.70 mg/kg
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Skin corrosion/irritation

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

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Standard Draize Test	Rabbit	500 mg	None reported	Mild skin irritant	RTECS

Serious eye damage/eye irritation

Classification based on data available for ingredients. Irritating to eyes.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Standard Draize Test	Rabbit	100 mg	None reported	Corrosive to eyes	RTECS
Isoamyl acetate (<1%) CAS#: 123-92-2	Standard Draize Test	Rabbit	None reported	None reported	Eye irritant	ERMA

Respiratory or skin sensitization

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

Mixture

No data available.

Ingredient Sensitization Data

Test data reported below.

Skin Sensitization Exposure Route

Chemical name	Test method	Species	Results	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	None reported	Guinea pig	Not confirmed to be a skin sensitizer	OECD 429: Skin Sensitization: Local Lymph Node Assay

STOT - single exposure

May cause drowsiness or dizziness.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Human TD _{Lo}	223 mg/kg	None reported	Behavioral Hallucinations, Distorted perceptions Cardiac Pulse rate decrease with fall in BP Vascular BP lowering not characterized in autonomic section	RTECS

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Human TC _{Lo}	35 mg/L	4 hours	Cardiac Pulse rate decrease with fall in BP Lungs, Thorax, or Respiration Other changes	RTECS

STOT - repeated exposure

Not classified.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Carcinogenicity**Mixture**

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Isopropyl alcohol	67-63-0	-	Group 3	-	X
Isoamyl acetate	123-92-2	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)	Does not apply
OSHA	X - Present

Germ cell mutagenicity

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

Mixture *invitro* Data

No data available.

Substance *invitro* Data

No data available.

Mixture *in vivo* Data

No data available.

Substance *in vivo* Data

Test data reported below.

Inhalation (Dust/Mist) Exposure Route

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Cytogenetic analysis	Rat	0.00103 mg/L	16 weeks	Positive test result for mutagenicity	RTECS

Reproductive toxicity

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

Mixture

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Rat TD _{Lo}	32.4 mg/kg	None reported	Effects on Embryo or Fetus Fetal death	RTECS

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	Rat TC _{Lo}	7000 mg/L	19 days	Specific Developmental Abnormalities Musculoskeletal system	RTECS

Section 12: Ecological information

Unknown aquatic toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Mixture**Aquatic Acute Toxicity**

No data available.

Aquatic Chronic Toxicity

No data available.

Substance**Aquatic Acute Toxicity**

Test data reported below.

Fish

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	96 hours	<i>Pimephales promelas</i>	LC ₅₀	4200 mg/L	IUCLID

Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	48 Hours	None reported	LC ₅₀	1400 mg/L	IUCLID

Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Isopropyl alcohol (20 - 30%) CAS#: 67-63-0	72 Hours	<i>Scenedesmus subspicatus</i>	EC ₅₀	> 1000 mg/L	IUCLID

Aquatic Chronic Toxicity

No data available.

Persistence and degradability**Mixture**

No data available.

Mixture

No data available.

Partition coefficient

Not applicable

Mobility**Soil Organic Carbon-Water Partition Coefficient**

Not applicable

Other adverse effects

No information available

Section 13: Disposal considerations**Waste treatment methods****Waste from residues/unused**

Should not be released into the environment. Dispose of in accordance with local

products regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

See section 8 for more information

Section 14: Transport information

ADG

UN number or ID number UN3316
Proper shipping name CHEMICAL KIT
Transport hazard class(es) 9
Special Provisions 251, 340
Description UN3316, CHEMICAL KIT, 9
Limited quantity (LQ) see SP251

IATA

UN number or ID number UN3316
Proper shipping name Chemical kit
Transport hazard class(es) 9
ERG Code 9L

IMDG

UN number or ID number UN3316
Proper shipping name CHEMICAL KIT
Transport hazard class(es) 9
EmS-No F-A, S-P
Special Provisions 251, 340

Additional information

This product forms part of a kit. Information in this section relates to the kit as a whole.

Section 15: Regulatory information

Regulatory information

National regulations

Australia

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

Australian Industrial Chemicals Introduction Scheme (AICIS)

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Isopropyl alcohol - 67-63-0	Contact supplier for inventory compliance status Present	-
Isoamyl acetate - 123-92-2	Contact supplier for inventory compliance status Present	-

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Major hazard (accident/incident planning) regulation

Verify that license requirements are met

Hazardous chemical

Liquids with flash points <61°C kept above their boiling points at ambient conditions

Threshold quantity (T) _

200

National pollutant inventory

Subject to reporting requirement

Chemical name	National pollutant inventory
Isopropyl alcohol - 67-63-0	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total
Isoamyl acetate - 123-92-2	20 MW Threshold category 2b total 60000 MWH Threshold category 2b total 1 tonne/h Threshold category 2a total 25 tonne/yr Threshold category 1a total 400 tonne/yr Threshold category 2a total 2000 tonne/yr Threshold category 2b total

International Inventories

AICS	Complies.
NZIoC	-.
TSCA	Complies.
DSL/NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL	Complies.
PICCS	Complies.

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Section 16: Other information

Prepared By Hach Product Compliance Department

Issue Date 01-Nov-2018

Revision Date 21-Jun-2024

Revision Note

None

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)		
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)		
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)		
CDC	CDC (Center for Disease Control)		
CEPA	CEPA (Canadian Environmental Protection Agency)		
CICAD	CICAD (Concise International Chemical Assessment Documents)		
ECHA	ECHA (The European Chemicals Agency)		
EEA	EEA (European Environment Agency)		
EPA	EPA (Environmental Protection Agency)		
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)		
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™		
FDA	FDA (Food & Drug Administration)		
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)		
HSDB	HSDB (Hazardous Substances Data Bank)		
INERIS	INERIS (The National Industrial Environment and Risks Institute)		
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)		
IUCLID	IUCLID (The International Uniform Chemical Information Database)		
NITE	Japan National Institute of Technology and Evaluation (NITE)		
NIH	NIH (National Institutes of Health)		
NIOSH	NIOSH (National Institute for Occupational Safety and Health)		
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)		
NDF	no data		
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)		
NIOSH IDLH	Immediately Dangerous to Life or Health		
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)		
PEEN	PEEN (Pan European Ecological Network)		

RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet



Be Right™

SAFETY DATA SHEET

Issue Date 01-Nov-2018

Revision Date 21-Jun-2024

Version 1.7

Section 1: Identification

Product identifier

Product Name Nitrate LR TNT Reagent Vial
Product Code(s) TNT835R

Other means of identification

Safety data sheet number M01749

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Determination of nitrate.

Uses advised against Consumer use

Details of manufacturer or importer

Supplier

HACH Pacific, 26 Brindley Street, Dandenong South, VIC 3175, Australia, Tel: 1300 887 735

Manufacturer

Hach Company, P.O. Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

Emergency telephone number

13 11 26

Section 2: Hazard(s) identification

GHS Classification

Corrosive to metals	Category 1 - (H290)
Skin corrosion/irritation	Category 1 Sub-category A - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)

Label elements

Corrosion



Signal word - DANGER

Hazard statements

H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
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): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304 + P340 - IF INHALED: Remove person to fresh air and keep 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/physician
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant
P234 - Keep only in original container
P390 - Absorb spillage to prevent material damage

Other hazards which do not result in classification

May be harmful if swallowed
Harmful to aquatic life

None known

Section 3: Composition and information on ingredients

Chemical Family Mixture

Substance

Not applicable

Mixture

Chemical nature Aqueous solution of inorganic acid.

Chemical name	Formula	CAS No.	Percent Range
Sulfuric acid	H ₂ SO ₄	7664-93-9	50 - 60%
Phosphoric acid	H ₃ PO ₄	7664-38-2	30 - 40%

Section 4: First aid measures**Emergency telephone number**

Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Description of necessary first aid measures

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or 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 breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical

attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.

For emergency responders

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms/effects, acute and delayed

Symptoms Burning sensation.

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

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

Section 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available

Specific hazards arising from the chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

Flammable properties

Contact with metals may evolve flammable hydrogen gas During a fire, irritating and highly toxic gases may be generated by thermal decomposition.

Explosive properties

Not classified according to GHS criteria.

Hazardous combustion products This material will not burn.

Specific/special fire-fighting measures

No information available.

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Other Information	Use personal protective equipment as required. Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

Environmental precautions

Do not allow into any sewer, on the ground or into any body of water. Should not be released into the environment. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

Methods and material for containment and cleaning up

Methods for containment Keep out of drains, sewers, ditches and waterways.

Methods for cleaning up Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Take up mechanically, placing in appropriate containers for disposal.

Precautions to prevent secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations. See section 8 for more information. See section 13 for more information.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
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Precautions for safe handling

General hygiene considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.
Incompatible materials	Oxidizing agent. Acids. Bases.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits

Chemical name	Australia
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	TWA: 1 mg/m ³ STEL: 3 mg/m ³
Phosphoric acid (30 - 40%) CAS#: 7664-38-2	TWA: 1 mg/m ³ STEL: 3 mg/m ³

Legend

See section 16 for terms and abbreviations

Appropriate engineering controls**Engineering controls**

Showers

Eyewash stations

Ventilation systems. Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Individual protection measures, such as personal protective equipment**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand protection

Wear suitable gloves. Impervious gloves.

Eye/face protection

Face protection shield.

Skin and body protection

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

General hygiene considerations

Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product.

Environmental exposure controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards

None under normal processing.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties**Physical state**

Liquid

Appearance

aqueous solution

Color

colorless

Odor

Acidic

Odor threshold

No data available

Property**Values****Remarks • Method****Molecular weight**

No data available

pH

< 1

@ 20 °C

Melting point / freezing point

~ -4 °C / 24.8 °F

Initial boiling point and boiling range

~ 101 °C / 213.8 °F

Evaporation rate	0 (water = 1)
Vapor pressure	0 mm Hg / 0 kPa at 20 °C / 68 °F
Relative vapor density	No data available
Specific gravity - VALUE 1	1.6
Partition coefficient	Not applicable
Soil Organic Carbon-Water Partition Coefficient	Not applicable
Autoignition temperature	No data available
Decomposition temperature	No data available
Dynamic viscosity	No data available
Kinematic viscosity	No data available

Solubility(ies)**Water solubility**

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	> 10000 mg/L	20 °C / 68 °F

Solubility in other solvents

None reported	No information available	No data available	No information available
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Other information**Metal Corrosivity**

Classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate

No data available

Aluminum Corrosion Rate

No data available

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Sulfuric acid	7664-93-9	No data available	-
Phosphoric acid	7664-38-2	Not applicable	-

Explosive properties**Upper explosion limit**

No data available

Lower explosion limit

No data available

Flammable properties**Flash point**

No data available

Flammability Limit in Air**Upper flammability limit:**

No data available

Lower flammability limit:

No data available

Oxidizing properties	No data available.
Bulk density	No data available

Section 10: Stability and reactivity

Reactivity

Corrosive on contact with water. Corrosive to metal.

Chemical stability

Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

None under normal processing.

Hazardous polymerization

None under normal processing.

Conditions to avoid

Exposure to air or moisture over prolonged periods.

Incompatible materials

Oxidizing agent. Acids. Bases.

Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Section 11: Toxicological information

Information on likely routes of exposure

Product Information

Inhalation

Corrosive by inhalation. Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal.

Eye contact

Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact

Corrosive. Causes severe burns. Avoid contact with skin and clothing.

Ingestion

Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

Symptoms

Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Acute toxicity

Based on available data, the classification criteria are not met

Mixture

No data available.

Ingredient Acute Toxicity Data

No data available.

Unknown acute toxicity

0 % of the mixture consists of ingredient(s) of unknown toxicity.

0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

Acute Toxicity Estimations (ATE)**Skin corrosion/irritation**

Causes severe burns.

Mixture

No data available.

Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to skin	HSDB
Phosphoric acid (30 - 40%) CAS#: 7664-38-2	Standard Draize Test	Rabbit	800 mg	None reported	Corrosive to skin	ECHA

Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

Mixture

No data available.

Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB
Phosphoric acid (30 - 40%) CAS#: 7664-38-2	Standard Draize Test	Rabbit	199 mg	None reported	Corrosive to eyes	RTECS

Respiratory or skin sensitization

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

Mixture

No data available.

Ingredient Sensitization Data

No data available.

STOT - single exposure

Not classified.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Human TD _{Lo}	0.144 mg/L	5 minutes	Lungs, Thorax, or Respiration Dyspnea	RTECS

STOT - repeated exposure

Not classified.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Human TC _{Lo}	0.003 mg/L	168 days	Musculoskeletal Changes in teeth and supporting structures	RTECS

Carcinogenicity**Mixture**

No data available.

Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Sulfuric acid	7664-93-9	A2	Group 1	Known	X
Phosphoric acid	7664-38-2	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A2 - Suspected Human Carcinogen
IARC (International Agency for Research on Cancer)	Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)	Known - Known Carcinogen
OSHA	X - Present

Germ cell mutagenicity

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

Mixture *invitro* Data

No data available.

Substance *invitro* Data

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Cytogenetic analysis	Hamster ovary	4 mmol/L	None reported	Positive test result for mutagenicity	No information available
Phosphoric acid (30 - 40%) CAS#: 7664-38-2	Mutation in microorganisms	<i>Salmonella typhimurium</i>	5 mg/plate	3 days	Negative	ECHA

Mixture *in vivo* Data

No data available.

Substance *in vivo* Data

No data available.

Reproductive toxicity

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

Mixture

No data available.

Ingredient Reproductive Toxicity Data

Test data reported below.

Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Phosphoric acid (30 - 40%) CAS#: 7664-38-2	Rat NOAEL	≥ 500 mg/kg	6 weeks	No reproductive or developmental toxic effects observed	ECHA

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid (50 - 60%) CAS#: 7664-93-9	Rabbit TC _{Lo}	0.02 mg/L	7 hours	Specific Developmental Abnormalities Musculoskeletal system	No information available

Section 12: Ecological information

Unknown aquatic toxicity

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Mixture**Aquatic Acute Toxicity**

No data available.

Aquatic Chronic Toxicity

No data available.

Substance**Aquatic Acute Toxicity**

No data available.

Aquatic Chronic Toxicity

No data available.

Persistence and degradability**Mixture**

No data available.

Bioaccumulation

There is no data for this product.

Mixture

No data available.

Partition coefficient

Not applicable

Mobility**Soil Organic Carbon-Water Partition Coefficient**

Not applicable

Other adverse effects

No information available

Section 13: Disposal considerations

Waste treatment methods**Waste from residues/unused products**

Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging

Do not reuse empty containers.

See section 8 for more information

Section 14: Transport information

ADG

UN number or ID number	UN3316
Proper shipping name	CHEMICAL KIT
Transport hazard class(es)	9
Special Provisions	251, 340
Description	UN3316, CHEMICAL KIT, 9
Limited quantity (LQ)	see SP251

IATA

UN number or ID number	UN3316
Proper shipping name	Chemical kit
Transport hazard class(es)	9
ERG Code	9L

Special Provisions A3, A803

IMDG

UN number or ID number UN3316
Proper shipping name CHEMICAL KIT
Transport hazard class(es) 9
EmS-No F-A, S-P
Special Provisions 251, 340

Additional information

This product forms part of a kit. Information in this section relates to the kit as a whole.

Section 15: Regulatory information

Regulatory information**National regulations****Australia**

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

Poison Schedule Number 6

Australian Industrial Chemicals Introduction Scheme (AICIS)

Chemical name	Australian Industrial Chemicals Introduction Scheme (AICIS)	Additional information
Sulfuric acid - 7664-93-9	Contact supplier for inventory compliance status Present	-
Phosphoric acid - 7664-38-2	Contact supplier for inventory compliance status Present	-

Illicit Drug Precursors/Reagents

This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

Chemical name	Illicit Drug Precursors/Reagents
Sulfuric acid - 7664-93-9	Category 3

Chemical name	Chemicals of Security Concern
Sulfuric acid - 7664-93-9	Present

National pollutant inventory

Subject to reporting requirement

Chemical name	National pollutant inventory
Sulfuric acid - 7664-93-9	10 tonne/yr Threshold category 1

Phosphoric acid - 7664-38-2	10 tonne/yr Threshold category 1
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International Inventories

AICS	Complies.
NZIoC	-
TSCA	Complies.
DSL/NDL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies.
IECSC	Complies.
KECL	Complies.
PICCS	Complies.

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

Section 16: Other information

Prepared By Hach Product Compliance Department

Issue Date 01-Nov-2018

Revision Date 21-Jun-2024

Revision Note

None

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Ceiling Limit Value	MAC	Maximum Allowable Concentration
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state

regulations.

SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealand's Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

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End of Safety Data Sheet