

SAFETY DATA SHEET

Issue Date 06-May-2021 Revision Date 26-Sep-2022 Version 1.2

Section 1: Identification: Product identifier and chemical identity

Product identifier

Product Name Phosphorus, TNTPlus™, Ortho

Product Code(s) TNT846-AU

Other means of identification

Safety data sheet number M01877

Recommended use of the chemical and restrictions on use

Recommended Use Orthophosphate Determination.

Uses advised against Consumer use

Details of manufacturer or importer

Manufacturer

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

Supplier

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

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

EN / UGHS Page 1/15

EU Specific Hazard Statements

Not applicable

Precautionary statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves, protective clothing, eye protection, and 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 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/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

None known

Section 3: Composition and information on ingredients, in accordance with Schedule 8

Chemical Family Mixture

Substance

Not applicable

Mixture

Chemical nature

Aqueous solution of inorganic salts.

Chemical nam	e F	ormula	CAS No	EC No (EU Index No)	Percent Range
Sulfuric acid	l	H2SO4	7664-93-9	231-639-5	20 - 30%
Molybdate, hexaamm tetrahydrate	onium, H24M07	N ₆ O ₂₄ • 4H ₂ O	12054-85-2	-	1 - 5%
Ammonium vanac	late N	H ₄ VO ₃	7803-55-6	232-261-3	<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 Immediate medical attention is required. Show this safety data sheet to the doctor in

attendance.

Inhalation 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 advice/attention. Remove to

fresh air.

Skin contactWash off immediately with soap and plenty of water while removing all contaminated clothes

EN / UGHS Page 2/15

and shoes. Get immediate medical advice/attention.

Eye contact Get immediate medical advice/attention. Rinse immediately with plenty of water, also under

the evelids, 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.

Ingestion Get immediate medical advice/attention. Clean mouth with water and drink afterwards

plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce

vomiting.

For emergency responders

Self-protection of the first aider 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. Avoid contact with skin, eyes or clothing. Wear

personal protective clothing (see section 8).

Most important symptoms/effects, acute and delayed

Symptoms Burning sensation.

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

Note to physicians pressure may occur with moist rales, frothy sputum, and high pulse pressure.

Section 5: Firefighting measures

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

Not flammable Contact with metals may evolve flammable hydrogen gas During a fire, corrosive and 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. Attention! Corrosive material. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes or

clothing. Use personal protective equipment as required.

Sections 7 and 8.

For emergency responders Use personal protection recommended in Section 8.

EN / UGHS Page 3/15

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. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.

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, including how the chemical may be safely used

Preventive measures for safe handling

Advice on safe handling

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

Precautions for safe handling

General Hygiene Considerations

Remove and wash contaminated clothing and gloves, including the inside, before re-use. 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.

Conditions for safe storage, including any incompatibilities

Storage Conditions

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

Incompatible materials

Acids. Bases. Oxidizing agent.

Section 8: Exposure controls and personal protection

Control parameters

Exposure Limits

Chemical name	Australia
Sulfuric acid	TWA: 1 mg/m ³
(20 - 30%)	STEL: 3 mg/m ³
CAS#: 7664-93-9	
Molybdate, hexaammonium, tetrahydrate	TWA: 5 mg/m ³
(1 - 5%)	·
CAS#: 12054-85-2	

Legend

See section 16 for terms and abbreviations

Appropriate engineering controls Engineering Controls

Showers

Evewash stations

Ventilation systems. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

EN / UGHS Page 4/15

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. 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 Face protection shield.

Skin and body protection Long sleeved clothing. Chemical resistant apron. Wear suitable protective clothing.

General Hygiene Considerations Remove and wash contaminated clothing and gloves, including the inside, before re-use.

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.

Other Protective Equipment None.

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

Appearanceaqueous solutionColorlight yellowOdorOdorlessOdor thresholdNo data available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

Molecular weight No data available

pH < 1.0 @ 20 °C

Melting point / freezing point -4 °C / 24.8 °F

Initial boiling point and boiling range 119 °C / 246.2 °F

Evaporation rate 1.28 (water = 1)

Vapor pressure 26.628 mm Hg $\,/\,$ 3.55 kPa at 20 °C $\,/\,$ 68 °F

Relative vapor density 0.03

Specific Gravity 1.15

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

EN / UGHS Page 5/15

Kinematic viscosity

No data available

Solubility(ies)

Water solubility

Water solubility classification	Water solubility_	Water Solubility Temperature_
Soluble	> 1000 mg/L	25 °C / 77 °F

Solubility in other solvents

Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

Other information

Metal Corrosivity

Classified as corrosive to metal according to GHS criteria

Steel Corrosion Rate
Aluminum Corrosion Rate

No data available No data available

Volatile Organic Compounds (VOC) Content

Chemical name	CAS No Volatile organic compounds		CAA (Clean Air Act)
		(VOC) content	
Sulfuric acid	7664-93-9	No data available	1
Molybdate, hexaammonium,	12054-85-2	No data available	1
tetrahydrate			
Ammonium vanadate	7803-55-6	Not applicable	-

Explosive properties

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point No data available

Flammability Limit in Air

Upper flammability limit:No data availableLower flammability limit:No data available

Oxidizing properties No data available.

Bulk density

No data available

Section 10: STABILITY AND REACTIVITY

Reactivity

Not applicable. Corrosive to metal.

Chemical stability

Stable under normal conditions.

Explosion data

EN / UGHS Page 6/15

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

Acids. Bases. Oxidizing agent.

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

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
Molybdate, hexaammonium, tetrahydrate (1 - 5%) CAS#: 12054-85-2	Rat LD₅o	354 mg/kg	None reported	None reported	No information available
Ammonium vanadate (<1%) CAS#: 7803-55-6	Rat LD ₅₀	58.1 mg/kg	None reported	Behavioral Somnolence (general depressed activity) Gastrointestinal	ChemADVISOR

EN / UGHS Page 7/15

	Hypermotility Diarrhea
	Nutritional and Gross Metabolic
	Body temperature decrease

Dermal Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ammonium vanadate	Rat	2102 mg/kg	None reported	Behavioral	HSDB
(<1%)	LD ₅₀			Somnolence (general depressed	
CAS#: 7803-55-6				activity)	
				Gastrointestinal	
				Hypermotility	
				Diarrhea	
				Nutritional and Gross	
				Metabolic	
				Body temperature decrease	

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ammonium vanadate (<1%) CAS#: 7803-55-6	Rat LC ₅₀	0.0078 mg/L	4 hours	None reported	LOLI

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)	13,566.90 mg/kg
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	7.8000 mg/L
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

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 (20 - 30%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to skin	HSDB

EN / UGHS Page 8/15

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 (20 - 30%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB

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

Substances known to be carcinogenic to man.

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 (20 - 30%)	Human TD∟₀	0.144 mg/L	5 minutes	Lungs, Thorax, or Respiration	RTECS
CAS#: 7664-93-9	I DLo			Dyspnea	

STOT - repeated exposure

Substances known to be carcinogenic to man.

Mixture

No data available.

Ingredient Specific Target Organ Toxicity Repeat 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
Ammonium vanadate		4630 mg/kg	90 days	Behavioral	RTECS
(<1%)	TDLo	3.3		Food intake	
CAS#: 7803-55-6				Blood	
				Pigmented or nucleated red	
				blood cells	
				Changes in erythrocyte (RBC)	

EN / UGHS Page 9/15

		count	

Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Molybdate,	Rat	0.060 mg/L	119 days	Blood	No information available
hexaammonium,	TCLo			Changes in erythrocyte (RBC)	
tetrahydrate				count	
(1 - 5%)				Biochemical	
CAS#: 12054-85-2				Enzyme inhibition, induction, or	
				change in blood or tissue levels	
				(dehydrogenases)	
Ammonium vanadate	Rat	4.59 mg/m ³	4 days	Lungs, Thorax, or	RTECS
(<1%)	TCLo			Respiration	
CAS#: 7803-55-6				Other changes	
				Immunological Including	
				Allergic	
				Decrease in cellular immune	
				response	

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Human	0.003 mg/L	168 days	Musculoskeletal	RTECS
(20 - 30%)	TCLo			Changes in teeth and supporting	
CAS#: 7664-93-9				structures	

Carcinogenicity

Substances known to be carcinogenic to man.

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	Χ
Molybdate, hexaammonium, tetrahydrate	12054-85-2	АЗ	-	-	-
Ammonium vanadate	7803-55-6	-	-	-	-

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	A2 - Suspected Human Carcinogen
	A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)	Group 1 - Carcinogenic to Humans
NTP (National Toxicology Program)	Known - Known Carcinogen
OSHA	X - Present

<u>Mutagenicity</u>

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

Mixture invitro **Data** No data available.

Substance invitro Data

Test data reported below.

EN / UGHS Page 10/15

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (20 - 30%) CAS#: 7664-93-9	Cytogenetic analysis	Hamster ovary	4 mmol/L	None reported	Positive test result for mutagenicity	No information available
Ammonium vanadate (<1%) CAS#: 7803-55-6	DNA damage	Human lymphocyte	0.2 mmol/L	None reported	Positive test result for mutagenicity	RTECS

Mixture invivo Data

No data available.

Substance invivo Data

Test data reported below.

Oral Exposure Route

Chemical name	Test	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Ammonium vanadate (<1%) CAS#: 7803-55-6	Micronucleus test	Mouse	50 mg/kg	None reported	Positive test result for mutagenicity	RTECS

Reproductive toxicity

Substances known to be carcinogenic to man.

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
Ammonium vanadate (<1%) CAS#: 7803-55-6	Rat	20 mg/kg	70 days	Death Post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants) Female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated) Male fertility index (e.g. # males impregnating females per # males exposed to fertile nonpregnant females)	

Inhalation (Vapor) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid	Rabbit	0.02 mg/L	7 hours	Specific Developmental	RTECS
(20 - 30%)	TCL₀			Abnormalities	
CAS#: 7664-93-9				Musculoskeletal system	ļ

Aspiration hazard

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

EN / UGHS Page 11/15

Section 12: ECOLOGICAL INFORMATION

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

Unknown Aquatic Toxicity 0 % of the mixture consists of components(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
Molybdate,	96 hours	Oncorhynchus mykiss	LC ₅₀	320 mg/L	No information available
hexaammonium,		-		_	
tetrahydrate					
(1 - 5%)					
CAS#: 12054-85-2					
Ammonium vanadate	96 hours	None reported	LC ₅₀	2.6 mg/L	EPA
(<1%)		·			
CAS#: 7803-55-6					

Algae

Chemical name	Exposure	Species	Endpoint	Reported dose	Key literature references and
	time		type		sources for data
Molybdate, hexaammonium, tetrahydrate (1 - 5%) CAS#: 12054-85-2	72 Hours	Desmodesmus subspicatus	EC ₅₀	41 mg/L	No information available

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

EN / UGHS Page 12/15

No information available

Section 13: DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues/unused Dispose of waste in accordance with environmental legislation. Dispose of in accordance

products with local regulations.

Contaminated packaging Do not reuse empty containers.

Section 14: TRANSPORT INFORMATION

ADG

UN Number UN3316
Proper shipping name CHEMICAL KIT

Transport hazard class(es) 9

Special Provisions 251, 340

Description UN3316, CHEMICAL KIT, 9

<u>IATA</u>

UN number or ID number UN3316
Proper shipping name UN3316

Transport hazard class(es) 9
Packing group || |
ERG Code 9|

Description UN3316, Chemical kit, 9

IMDG

UN number or ID number UN3316
Proper shipping name UN3316
CHEMICAL KIT

Transport hazard class(es) 9

EmS-No F-A, S-P Special precautions for user 251, 340

Description UN3316, CHEMICAL KIT, 9

Additional information

This product forms part of a kit. Information in this section relates to the kit as a whole. If the item is not regulated, the Chemical Kit classification does not apply.

Section 15: REGULATORY INFORMATION

Regulatory information

National regulations

<u>Australia</u>

See section 8 for national exposure control parameters

Model Work Health and Safety Regulations

[NOHSC:2011(2003] National Code of Practice for the Preparation of Material Safety Data Sheets

Labelling of Workplace Hazardous Chemicals Code of Practice

Poison Schedule Number 6

National pollutant inventory Subject to reporting requirement

EN / UGHS Page 13/15

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

Banned and/or restricted

No Products Listed.

International Inventories

Complies **TSCA DSL/NDSL** Complies **EINECS/ELINCS** Complies **ENCS** Complies Complies **IECSC** Complies **KECL** - Existing substances Complies PICCS **TCSI** Complies Complies **AICS** Complies **NZIoC**

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

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

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: Any other relevant information

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

ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS (Chemical Carcinogenesis Research Information System)

CDC (Center for Disease Control)

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 (New Zealands 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 (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)

EN / UGHS Page 14/15

NIH (National Institutes of Health)

NIOSH NIOSH (National Institute for Occupational Safety and Health)
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 (Occupational Safety and Health Administration of the US Department of Labor)

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 (World Health Organization)

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

Prepared By Hach Product Compliance Department

Issue Date 06-May-2021

Revision Date 26-Sep-2022

Revision Note

None

Reference Sources for Section 11

See Section 11: TOXICOLOGICAL INFORMATION

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. HACH COMPANY©2022

End of Safety Data Sheet
