

# SAFETY DATA SHEET

Issue Date 27-Mar-2019 Revision Date 14-Aug-2019 Version 1.5

# 1. Identification

**Product identifier** 

Product Name Molybdate 3 Reagent for Silica

Other means of identification

Product Code(s) 199503

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory reagent. Silica determination.

**Restrictions on use** For Laboratory Use Only.

Uses advised against Consumer use

Details of the supplier of the safety data sheet

**Manufacturer Address** 

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

Emergency telephone number

Emergency Telephone +1(303) 623-5716 - 24 Hour Service

# 2. Hazards identification

## Classification

Corrosive to metals	Category 1 - (H290)
Skin corrosion/irritation	Category 1 - (H314)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

## Label elements

Signal word - Danger

## **Hazard statements**

H290 - May be corrosive to metals

H314 - Causes severe skin burns and eye damage

H372 - Causes damage to organs through prolonged or repeated exposure



Corrosion Health hazard

#### **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): Take off immediately all contaminated clothing. Rinse skin with water [or 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

P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/ container to an approved waste disposal plant

P270 - Do not eat, drink or smoke when using this product

P234 - Keep only in original packaging

P390 - Absorb spillage to prevent material damage

#### Other Hazards Known

Not applicable

# 3. Composition/information on ingredients

### **Substance**

Not applicable.

#### <u>Mixture</u>

Chemical Family Mixture.

**Chemical nature** Aqueous solution of inorganic acids and salts.

Chemical name	CAS No.	Synonyms	Percent Range
Water	7732-18-5	No information available	60 - 70%
Sulfuric acid 7664-93-9		Oil of vitriol	7 - 13%
Sulfuric acid, sodium salt (1:1)	7681-38-1	No information available	7 - 13%
Molybdate (MoO42-), dihydrogen, (T-4)-	7782-91-4	Molybdic Acid	5 - 10%

## 4. First aid measures

#### Description of 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

advice/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 advice/attention.

**Skin contact** Wash off immediately with soap and plenty of water while removing all contaminated

clothes and shoes. Get immediate medical advice/attention.

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. Get immediate medical

advice/attention.

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 and effects, both acute and delayed

**Symptoms** Burning sensation.

Indication of any immediate medical attention and special treatment needed

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.

# 5. Fire-fighting measures

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

**Unsuitable extinguishing media** CAUTION: Use of water spray when fighting fire may be inefficient.

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.

Hazardous combustion products Sulfur oxides. Sodium oxides.

**Explosion data** 

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

Special protective actions for

fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout

gear. Use personal protection equipment.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions 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** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions** 

**Environmental precautions** 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** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

# 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.

#### 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.

## 8. Exposure controls/personal protection

### Control parameters

**Exposure Limits** Based on NOM-010-STPS-2014.

Chemical name	TWA	STEL	Ceiling Limit Value
Sulfuric acid	0.2 mg/m <sup>3</sup>	-	-
7664-93-9			
Molybdate (MoO42-),	0.5 mg/m <sup>3</sup>	-	-
dihydrogen, (T-4)-	_		
7782-91-4			

#### **Appropriate engineering controls**

Engineering controls Showers

Eyewash stations Ventilation systems.

#### Individual protection measures, such as personal protective equipment

**Eye/face protection** Face protection shield.

**Hand protection** Wear suitable gloves. Impervious gloves.

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

exceeded or irritation is experienced, ventilation and evacuation may be required.

## 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.

# 9. Physical and chemical properties

## Information on basic physical and chemical properties

Physical state

Liquid

Appearance clear Odor Odorless Color Colorless to light yellow

Odor threshold Not applicable

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

Molecular weight Not applicable

**pH** < 2

Melting point/freezing point  $\sim$  -13 °C / 8.6 °F

Boiling point / boiling range ~ 100 °C / 212 °F

Evaporation rate 1.17 (water = 1)

**Vapor pressure** 22.127 mm Hg / 2.95 kPa at 25 °C / 77 °F

Vapor density (air = 1) 0.62 (air = 1)

Specific gravity (water = 1 / air = 1) 1.2

Partition Coefficient (n-octanol/water) 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
Soluble	> 1000 mg/L	25 °C / 77 °F

## Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
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 151.6 mm/yr / 5.97 in/yr Aluminum Corrosion Rate No data available /

**Volatile Organic Compounds (VOC) Content** 

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
144 :			
Water	7732-18-5	No data available	-
Sulfuric acid	7664-93-9	No data available	-
Sulfuric acid, sodium salt (1:1)	7681-38-1	No data available	-
Molybdate (MoO42-), dihydrogen,	7782-91-4	Not applicable	-
(T-4)-			

**Explosive properties** 

Upper explosion limitNo data availableLower explosion limitNo data available

Flammable properties

Flash point > 100 °C / 212 °F

Method CC (closed cup)

Flammability Limit in Air

Upper flammability limitNo data availableLower flammability limitNo data available

Oxidizing properties Not classified according to GHS criteria.

Bulk density No data available

# 10. Stability and reactivity

**Reactivity** No information available.

**Chemical stability** Stable under normal conditions.

Possibility of Hazardous Reactions None under normal processing.

**Hazardous polymerization** Hazardous polymerization does not occur.

**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.

# 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

#### **Product Acute Toxicity Data**

Test data reported below.

## **Oral Exposure Route**

Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references
Rat	7099 mg/kg	None reported	None reported	and sources for data
LD50		•	-	Outside testing

## **Inhalation (Gas) Exposure Route**

#### **Ingredient Acute Toxicity Data**

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Sulfuric acid, sodium salt (1:1) (7 - 13%) CAS#: 7681-38-1	Rat LD <sub>50</sub>	2490 mg/kg	None reported	None reported	IUCLID (The International Uniform Chemical Information Database)
Molybdate (MoO42-), dihydrogen, (T-4)- (5 - 10%) CAS#: 7782-91-4	Rat LD <sub>50</sub>	2689 mg/kg	None reported	None reported	Vendor SDS

#### 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)**

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

ATEmix (oral)	No information available
ATEmix (dermal)	30,012.00
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

## Skin corrosion/irritation

Causes severe burns.

#### **Product Skin Corrosion/Irritation Data**

Test data reported below.

Test method	Species	Reported dose	Exposure	Results	Key literature references and
United States	Rabbit	0.5 mL	time	Not corrosive	sources for data
Department of			4 hours	to skin	Internal Data
Transportation (DOT)					Outside testing
Skin Corrosion Test					_

# Ingredient Skin Corrosion/Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (7 - 13%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to skin	HSDB (Hazardous Substances Data Bank)
Sulfuric acid, sodium salt (1:1) (7 - 13%) CAS#: 7681-38-1	Standard Draize Test	Rabbit	500 mg	4 hours	Not corrosive or irritating to skin	ECHA (The European Chemicals Agency)

## Serious eye damage/eye irritation

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

## **Product Serious Eye Damage/Eye Irritation Data**

No data available.

## Ingredient Eye Damage/Eye Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (7 - 13%) CAS#: 7664-93-9	Existing human experience	Human	None reported	None reported	Corrosive to eyes	HSDB (Hazardous Substances Data Bank)
Sulfuric acid, sodium salt (1:1) (7 - 13%) CAS#: 7681-38-1	Standard Draize Test	Rabbit	100 mg	None reported	Eye irritant	ECHA (The European Chemicals Agency)

## Respiratory or skin sensitization

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

#### **Product Sensitization Data**

No data available.

## **Ingredient Sensitization Data**

No data available.

### STOT - single exposure

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

## **Product Specific Target Organ Toxicity Single Exposure Data**

No data available.

# Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and

\_\_\_\_\_

	type	dose	time		sources for data
Sulfuric acid	Human	0.144 mg/L	5 minutes	Lungs, Thorax, or	RTECS (Registry of Toxic
(7 - 13%)	TDLo			Respiration	Effects of Chemical
CAS#: 7664-93-9				Dyspnea	Substances)

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

**Product Specific Target Organ Toxicity Repeat Dose Data** 

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Chemical name	name Endpoint Reported Exposure Toxicological effect		Toxicological effects	Key literature references and	
	type	dose	time		sources for data
Sulfuric acid	Human	0.003 mg/L	168 days	Musculoskeletal	RTECS (Registry of Toxic
(7 - 13%)	TCL₀		_	Changes in teeth and	Effects of Chemical
CAS#: 7664-93-9				supporting structures	Substances)

Carcinogenicity

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**Product Carcinogenicity Data** 

No data available.

**Ingredient Carcinogenicity Data** 

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Water	7732-18-5	•	-	•	-
Sulfuric acid	7664-93-9	A2	Group 1	Known	X
Sulfuric acid, sodium salt (1:1)	7681-38-1	-	-	•	-
Molybdate (MoO42-), dihydrogen, (T-4)-	7782-91-4	А3	-	-	-

### 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 (Occupational Safety and Health Administration of the US Department of	X - Present
Labor)	

Germ cell mutagenicity

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

Product Germ Cell Mutagenicity invitro Data

No data available.

Ingredient Germ Cell Mutagenicity invitro Data

No data available.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Sulfuric acid (7 - 13%) CAS#: 7664-93-9	Cytogenetic analysis	Hamster ovary	4 mmol/L	None reported	Positive test result for mutagenicity	No information available

Product Germ Cell Mutagenicity invivo Data

No data available.

### Ingredient Germ Cell Mutagenicity invivo Data

No data available.

#### Reproductive toxicity

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

# **Product Reproductive Toxicity Data**

No data available.

### **Ingredient Reproductive Toxicity Data**

No data available.

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 (Registry of Toxic
(7 - 13%)	TCLo			Abnormalities	Effects of Chemical
CAS#: 7664-93-9				Musculoskeletal system	Substances)

### **Aspiration hazard**

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

# 12. Ecological information

**Ecotoxicity** 

Unknown aquatic toxicity

8.33% of the mixture consists of components(s) of unknown hazards to the aquatic

environment.

## **Product Ecological Data**

#### **Aquatic Acute Toxicity**

No data available.

# **Aquatic Chronic Toxicity**

No data available.

## **Ingredient Ecological Data**

## **Aquatic Acute Toxicity**

No data available.

Chemical name	Exposure	Species	Endpoint	Reported	Key literature references and
	time		type	dose	sources for data
Sulfuric acid, sodium	48 Hours	Daphnia magna	EC <sub>50</sub>	190 mg/L	IUCLID (The International
salt (1:1)					Uniform Chemical Information
(7 - 13%)					Database)
CAS#: 7681-38-1					

# **Aquatic Chronic Toxicity**

No data available.

# Persistence and degradability

# **Product Biodegradability Data**

No data available.

## **Bioaccumulation**

#### **Product Bioaccumulation Data**

No data available.

## Partition Coefficient (n-octanol/water)

Not applicable

### **Mobility**

**Soil Organic Carbon-Water Partition Coefficient** 

Not applicable

### Other adverse effects

No information available.

# 13. Disposal considerations

### Waste treatment methods

Waste from residues/unused

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

environmental legislation.

Contaminated packaging Do not reuse empty containers.

# 14. Transportation information

MEX

products

UN/ID no UN3264

Proper shipping name Corrosive Liquid, Acidic, Inorganic, N.O.S.

**Hazard Class** Ш **Packing Group** 

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III

**TDG** 

UN/ID no UN3264

Proper shipping name Corrosive Liquid, Acidic, Inorganic, N.O.S.

**Hazard Class** 

**Packing Group** 

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III

DOT

UN/ID no UN3264

Proper shipping name Corrosive Liquid, Acidic, Inorganic, N.O.S.

Hazard Class **Packing Group** Ш

Reportable Quantity (RQ) Sulfuric acid: RQ kg= 3588.42

**Special Provisions** IB3, T7, TP1, TP28

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III, RQ

**Emergency Response Guide** 154

Number

ICAO (air)

UN3264 UN/ID no

Proper shipping name Corrosive Liquid, Acidic, Inorganic, N.O.S.

**Hazard Class Packing Group** Ш **Special Provisions A3** 

Description UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III

**IATA** 

UN/ID no

Proper shipping name Corrosive liquid, acidic, inorganic, n.o.s.

**Hazard Class Packing Group** Ш **ERG Code** 81 Special precautions for user A3, A803

**IMDG** 

UN/ID no UN3264

**Proper shipping name** Corrosive liquid, acidic, inorganic, n.o.s.

Hazard Class 8
Packing Group III
EmS-No F-A, S-B
Special precautions for user 223, 274
Marine pollutant No

RID

UN/ID no UN3264

**Proper shipping name** Corrosive Liquid, Acidic, Inorganic, N.O.S.

Hazard Class 8
Packing Group III
Classification code C1

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III

ADR

UN/ID no UN3264

**Proper shipping name** Corrosive Liquid, Acidic, Inorganic, N.O.S.

Hazard Class 8
Packing Group III
Classification code C1
Tunnel restriction code (E)
Special precautions for user 274

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III, (E)

Labels 8

ADN

**Proper shipping name** Corrosive Liquid, Acidic, Inorganic, N.O.S.

Hazard Class 8
Packing Group III
Classification code C1
Special Provisions 274

**Description** UN3264, Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid), 8, III

Hazard label(s) 8 Limited quantity (LQ) 5 L

#### **Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

# 15. Regulatory information

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

**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

**International Inventories** 

TSCA Complies.
DSL/NDSL Complies.
EINECS/ELINCS Complies.
ENCS Complies.

**IECSC** Complies. **KECL** Complies. **PICCS** Complies. **AICS** Complies.

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

AICS - Australian Inventory of Chemical Substances

## 16. Other information

NFPA **Health hazards** 3 Flammability 1 Instability 0 Physical and chemical

properties -

HMIS Health hazards 3 \* Flammability 1 Physical hazards 0 Personal protection X

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

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

STEL (Short Term Exposure Limit) TWA TWA (time-weighted average) STEL

Maximum limit value Ceiling SKN\* Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA) EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

RTECS (Registry of Toxic Effects of Chemical Substances)

World Health Organization

**Prepared By** Hach Product Compliance Department.

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**Revision Date** 14-Aug-2019

**Revision Note** None

NOM-018-STPS-2015

The information is believed to be accurate, but it is not exhaustive and must be used only as guidance. It is based on the current state of knowledge of the chemical substance or mixture and is applicable to the appropriate safety precautions

for the product.

#### **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**