

# SAFETY DATA SHEET

**Issue Date** 31-05-2018 **Revision Date** 26-Jan-2024 **Version** 1.9 **Page** 1 / 13

### 1. IDENTIFICATION

**Product identifier** 

Product Name Cyanide, DosiCapZip

Other means of identification

Product Code(s) TNT862B

Safety data sheet number M03663

UN/ID no UN3316

Recommended use of the chemical and restrictions on use

**Recommended Use** Water Analysis. Determination of cyanide.

Uses advised against Consumer use. Restrictions on use Not determined.

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

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

## 2. HAZARDS IDENTIFICATION

### Classification

### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Serious eye damage/eye irritation	Category 1

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

## Signal word

Danger



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**Hazard statements** 

H302 - Harmful if swallowed

H318 - Causes serious eye damage

**Precautionary statements** 

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

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P330 - Rinse mouth

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

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

P310 - Immediately call a POISON CENTER or doctor/physician

#### Other Hazards Known

None

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable

**Mixture** 

**Chemical Family** 

No information available. **Chemical nature** 

### Percent ranges are used where confidential product information is applicable.

Mixture.

Chemical name	CAS No	Percent Range	HMRIC #
2,4,6(1H,3H,5H)-Pyrimidinetrione, 1,3-dimethyl-, ion(1-), sodium	41980-81-8	80 - 90%	ı
2,4,6(1H,3H,5H)-Pyrimidinetrione, 1,3-dimethyl-	769-42-6	10 - 20%	-

## 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. Get medical attention immediately if symptoms occur.

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

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.

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical Skin contact

attention if irritation develops and persists.

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Ingestion

Never give anything by mouth to an unconscious person. Call a physician.

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

Most important symptoms and effects, both acute and delayed

**Symptoms** Burning sensation.

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Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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

No information available.

None reported. **Hazardous combustion products** 

Special protective equipment for

fire-fighters

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

Use personal protection equipment.

6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice** Only persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

Refer to protective measures listed in Sections 7 and 8. Other Information

Environmental precautions

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

Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. **Methods for containment** 

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

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

See section 8 for more information. See section 13 for more information. Reference to other sections

7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Advice on safe handling

skin, eyes or clothing. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach

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of children. Store locked up.

Not applicable Flammability class

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

**Exposure Guidelines** This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies

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** 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.

Tight sealing safety goggles. Eye/face protection

Skin and body protection Wear suitable protective clothing.

**General Hygiene Considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product.

Local authorities should be advised if significant spillages cannot be contained. Do not allow **Environmental exposure controls** 

into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state

Solid

**Appearance** flakes Color white

Odor Odorless Odor threshold Not applicable

**Property** Values Remarks • Method

Molecular weight Not applicable

@ 20 °C рH 6.0

Melting point / freezing point No data available Initial boiling point and boiling range No data available

No data available **Evaporation rate** 

Vapor pressure No data available

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Relative vapor density No data available

No data available Specific gravity - VALUE 1

Partition coefficient No data available

**Soil Organic Carbon-Water Partition** 

Coefficient

No data available

**Autoignition temperature** No data available

No data available **Decomposition temperature** 

No data available Not applicable **Dynamic viscosity** 

Not applicable Kinematic viscosity

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

Chemical Name_	Solubility classification	Solubility	Solubility Temperature
None reported	No information available	No data available	No information available

### Other information

### **Metal Corrosivity**

**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)
2,4,6(1H,3H,5H)-Pyrimidinetrione, 1,3-dimethyl-, ion(1-), sodium	41980-81-8	Not applicable	-
2,4,6(1H,3H,5H)-Pyrimidinetrione, 1,3-dimethyl-	769-42-6	Not applicable	-

### **Explosive properties**

No data available **Upper explosion limit** Lower explosion limit No data available

Flammable properties

No data available Flash point

Flammability Limit in Air

**Upper flammability limit:** No data available Lower flammability limit: No data available

**Oxidizing properties** No data available.

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Bulk density

No data available

### 10. STABILITY AND REACTIVITY

## Reactivity

Not applicable.

#### 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**

No information available.

## Conditions to avoid

None known based on information supplied.

### Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

## Hazardous decomposition products

None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Product Information**

**Inhalation** No known effect based on information supplied.

Eye contact Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause

irreversible damage to eyes.

**Skin contact** May cause irritation.

**Ingestion** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if

swallowed.

**Symptoms** Redness. Burning. May cause blindness.

**Acute toxicity** 

Harmful if swallowed

**Mixture** 

No data available.

### **Ingredient Acute Toxicity Data**

Test data reported below.

### **Oral Exposure Route**

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Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
2,4,6(1H,3H,5H)-Pyri midinetrione, 1,3-dimethyl-, ion(1-), sodium (80 - 90%) CAS#: 41980-81-8	Rat LD₅o	1780 mg/kg	None reported	None reported	Based on similiar substance
2,4,6(1H,3H,5H)-Pyri midinetrione, 1,3-dimethyl- (10 - 20%) CAS#: 769-42-6	Rat LD50	1780 mg/kg	None reported	None reported	Vendor SDS

### **Unknown Acute Toxicity**

100% of the mixture consists of ingredient(s) of unknown toxicity.

## **Acute Toxicity Estimations (ATE)**

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

ATEmix (oral)	1,780.00 mg/kg
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

### Skin corrosion/irritation

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

#### **Mixture**

No data available.

### Ingredient Skin Corrosion/Irritation Data

No data available.

### Serious eye damage/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

No data available.

### 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**

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

### Mixture

No data available.

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## Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

### STOT - repeated exposure

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

#### Mixture

No data available.

### Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

### Carcinogenicity

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

#### **Mixture**

No data available.

### **Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
2,4,6(1H,3H,5H)-Pyrimidin	41980-81-8	=	-	=	-
etrione, 1,3-dimethyl-,					
ion(1-), sodium					
2,4,6(1H,3H,5H)-Pyrimidin	769-42-6	-	-	-	-
etrione, 1,3-dimethyl-					

### Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

### **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 invivo Data

No data available.

### Substance invivo Data

No data available.

### Reproductive toxicity

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

### **Mixture**

No data available.

### **Ingredient Reproductive Toxicity Data**

No data available.

### **Aspiration hazard**

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

### 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** 

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 No data available

**Mobility** 

Soil Organic Carbon-Water Partition Coefficient No data available

Other adverse effects
No information available

## 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.

US EPA Waste Number No information available

### 14. TRANSPORT INFORMATION

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DOT

UN/ID no UN3316

Proper shipping name CHEMICAL KITS

Transport hazard class(es) 9
Emergency Response Guide 171

Number

TDG

UN/ID no UN3316
Proper shipping name CHEMICAL KIT

Transport hazard class(es) 9
Packing Group | |

<u>IATA</u>

UN number or ID number UN3316
Proper shipping name UN3316

Transport hazard class(es) 9 ERG Code 9L

Special Provisions A163, A44

**IMDG** 

UN number or ID number UN3316

Proper shipping name CHEMICAL KIT

Transport hazard class(es)

EmS-No F-A, S-P Special Provisions 251, 340

#### **Additional information**

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

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

### 15. REGULATORY INFORMATION

**National Inventories** 

TSCA Complies
DSL/NDSL Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories** 

EINECS/ELINCS Does not comply
ENCS Does not comply
IECSC Complies

IECSC Complies
KECL Does not comply

PICCS Does not comply
TCSI Does not comply
AICS Does not comply
NZIOC Does not comply

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

### **US Federal Regulations**

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### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

**IMERC:** Dispose of in accordance with local, state and federal regulations or laws.

#### **U.S. State Right-to-Know Regulations**

This product does not contain any substances regulated by state right-to-know regulations.

### **U.S. EPA Label Information**

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

### **Special Comments**

None

#### **Additional information**

#### Global Automotive Declarable Substance List (GADSL)

Not applicable

### **NFPA** and HMIS Classifications

	properties -
HMIS Health hazards - 3 Flammability - 0 Physical hazards - 0	Personal protection - X

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

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)

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ECHA ECHA (The European Chemicals Agency)
EEA EEA (European Environment Agency)
EPA EPA (Environmental Protection Agency)

ERMA 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 HSDB (Hazardous Substances Data Bank)

INERISINERIS (The National Industrial Environment and Risks Institute)IPCS INCHEMIPCS INCHEM (International Programme on Chemical Safety)IUCLIDIUCLID (The International Uniform Chemical Information Database)NITEJapan National Institute of Technology and Evaluation (NITE)

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 (Registry of Toxic Effects of Chemical Substances)
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)

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

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** 31-05-2018

Revision Date 26-Jan-2024

Revision Note None

#### **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

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**OBTAINED FROM THE USE THEREOF.** 

HACH COMPANY@2023

**End of Safety Data Sheet** 

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### 1. IDENTIFICATION

**Product identifier** 

Product Name Cyanide, Reagent A

Other means of identification

Product Code(s) TNT862A

Safety data sheet number M03664

UN/ID no UN3316

Recommended use of the chemical and restrictions on use

**Recommended Use** Water Analysis. Determination of cyanide.

Uses advised against Consumer use. Restrictions on use Not determined.

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

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

## 2. HAZARDS IDENTIFICATION

### Classification

## **Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

## Signal word

None

### Hazard statements

The product contains no substances which at their given concentration, are considered to be hazardous to health

### Other Hazards Known

Causes mild skin irritation

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance Not applicable

**Mixture** 

Chemical Family Mixture.

Chemical nature aqueous solution.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Pyridine	110-86-1	<0.1%	-

### 4. FIRST AID MEASURES

**Description of first aid measures** 

General advice No hazards which require special first aid measures. Use first aid treatment according to the

nature of the injury.

**Inhalation** Remove to fresh air.

Eye contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

**Skin contact** Wash skin with soap and water.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

**Symptoms** See Section 11 for additional Toxicological Information.

Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

surrounding environment.

Unsuitable Extinguishing Media Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the

chemical

No information available.

**Hazardous combustion products** No information available.

Special protective equipment for

fire-fighters

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

Use personal protection equipment.

### 6. ACCIDENTAL RELEASE MEASURES

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**U.S. Notice**Only persons properly qualified to respond to an emergency involving hazardous

substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

Environmental precautions

**Environmental precautions** See Section 12 for additional ecological information.

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 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.

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

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Flammability class Not applicable

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

### **Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Pyridine	TWA: 1 ppm	TWA: 5 ppm	IDLH: 1000 ppm
CAS#: 110-86-1		TWA: 15 mg/m <sup>3</sup>	TWA: 5 ppm
		(vacated) TWA: 5 ppm	TWA: 15 mg/m <sup>3</sup>
		(vacated) TWA: 15 mg/m <sup>3</sup>	

Appropriate engineering controls

Engineering Controls Showers

Evewash stations

Ventilation systems. Technical measures and appropriate working operations should be

given priority over the use of personal protective equipment.

Individual protection measures, such as personal protective equipment

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

**Hand Protection** 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** Wear safety glasses with side shields (or goggles).

**Skin and body protection**No special protective equipment required.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. The type of

protective equipment must be selected according to the concentration and amount of the

dangerous substance at the specific workplace.

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.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state

Liquid

Appearance Odor aqueous solution Characteristic Color colorless

Odor threshold No information available

Property Values Remarks • Method

Molecular weight No data available

**pH** 5 @ 20 °C

Melting point / freezing pointNo data availableInitial boiling point and boiling rangeNo data availableEvaporation rateNo data available

**Vapor pressure** 11.251 mm Hg / 1.5 kPa at 10 °C / 50 °F

Relative vapor density

No data available

Specific gravity - VALUE 1 1

Partition coefficient

No data available

Soil Organic Carbon-Water Partition

Coefficient

No data available

Autoignition temperature No data available

**Decomposition temperature**No information available

Dynamic viscosity

No data available

Kinematic viscosity

No data available

Solubility(ies)

Water solubility

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

## Solubility in other solvents

<u>Chemical Name</u> <u>Solu</u>		Solubility classification	<u>Solubility</u>	Solubility Temperature_
	None reported	No information available	No data available	No information available

### **Other information**

**Metal Corrosivity** 

Steel Corrosion Rate

Aluminum Corrosion Rate

No data available
No data available

**Volatile Organic Compounds (VOC) Content** 

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Pyridine	110-86-1	100%	Χ

## **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

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

## 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**

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None under normal processing.

### Conditions to avoid

None known based on information supplied.

### Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

### Hazardous decomposition products

None under normal use conditions.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

## **Product Information**

**Inhalation** No known effect based on information supplied.

Eye contact No known effect based on information supplied.

**Skin contact** No known effect based on information supplied.

**Ingestion** No known effect based on information supplied.

**Symptoms** No information available.

#### **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
Pyridine (<0.1%) CAS#: 110-86-1	Rat LD <sub>50</sub>	891 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
Pyridine (<0.1%) CAS#: 110-86-1	Rabbit LD <sub>50</sub>	1121 mg/kg	None reported	None reported	RTECS

### Inhalation (Vapor) Exposure Route

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Pyridine	Rat	12.898 mg/L	4 hours	None reported	NITE
(<0.1%)	LC <sub>50</sub>				
CAS#: 110-86-1					

#### **Unknown Acute Toxicity**

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

### **Acute Toxicity Estimations (ATE)**

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

### 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
Pyridine (<0.1%) CAS#: 110-86-1	Standard Draize Test	Rabbit	500 ppm	4 hours	Skin irritant	RTECS

### Serious eye damage/irritation

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

#### **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
Pyridine (<0.1%) CAS#: 110-86-1	Standard Draize Test	Rabbit	0.1 mL	1 seconds	Corrosive to eyes	ECHA

### 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

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

#### **Mixture**

No data available.

## Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

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### **Oral Exposure Route**

	Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Ī	Pyridine	Mouse	1000 mg/kg	None reported	Liver	RTECS
	(<0.1%)	LDLo			Hepatitis (hepatocellular	
L	CAS#: 110-86-1				necrosis), diffuse	

### **STOT - repeated exposure**

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

### **Mixture**

No data available.

### Ingredient Specific Target Organ Toxicity Repeat Exposure Data

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Pyridine (<0.1%) CAS#: 110-86-1	Human	None reported	None reported	Kidney, Ureter, or Bladder Abnormalities of the kidneys Liver Impaired liver function tests Gastrointestinal Nausea or vomiting Behavioral Headache Collapse of nervous system Dizziness Speech disorder	NITE

## Carcinogenicity

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

#### Mixture

No data available.

## **Ingredient Carcinogenicity Data**

Test data reported below.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Pyridine	110-86-1	A3	Group 2B	-	Χ

### **Legend**

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

## **Oral Exposure Route**

Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Pyridine (<0.1%) CAS#: 110-86-1	Rat	7350 mg/kg	105 weeks	None reported	RTECS

## Germ cell mutagenicity

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

### Mixture invitro Data

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No data available.

Substance invitro Data

No data available.

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
Pyridine (<0.1%) CAS#: 110-86-1	Unscheduled DNA synthesis	Mouse	700 mg/kg	None reported	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
Pyridine (<0.1%) CAS#: 110-86-1	Rat NOAEL	50 mg/kg	2 weeks	No reproductive or developmental toxic effects observed	ECHA

### **Aspiration hazard**

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

## 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

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Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Pyridine (<0.1%) CAS#: 110-86-1	96 hours	None reported	LC50	1.1 mg/L	GESTIS

#### **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 No data available

Mobility

No data available **Soil Organic Carbon-Water Partition Coefficient** 

Other adverse effects No information available

### 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.

**US EPA Waste Number** D038, U196

Chemical name	RCRA	<b>RCRA - Basis for Listing</b>	RCRA - D Series Wastes	RCRA - U Series Wastes
Pyridine	U196	Included in waste	5.0 mg/L regulatory level	U196
110-86-1		streams: F005, F039,		
		K026, K157		

## 14. TRANSPORT INFORMATION

DOT

UN/ID no UN3316

Proper shipping name CHEMICAL KITS

Transport hazard class(es) 9 **Emergency Response Guide** 

Number

171

**TDG** 

UN/ID no UN3316

CHEMICAL KIT Proper shipping name

Transport hazard class(es)

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Packing Group

**IATA** 

UN number or ID number UN3316
Proper shipping name UN3316

Transport hazard class(es) 9
ERG Code 9L

Special Provisions A163, A44

**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 Provisions** 251, 340

### **Additional information**

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

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

## 15. REGULATORY INFORMATION

**National Inventories** 

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories** 

EINECS/ELINCS Complies

**ENCS** Does not comply

IECSC Complies
KECL Complies
PICCS Complies
TCSI Complies
AICS Complies
NZIOC Complies

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

### **US Federal Regulations**

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Pyridine (CAS #: 110-86-1)	1.0
SARA 311/312 Hazard Categories	
Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No

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Sudden release of pressure hazard No Reactive Hazard No

### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Pyridine	1000 lb	-	RQ 1000 lb final RQ
110-86-1			RQ 454 kg final RQ

### **US State Regulations**

#### **California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65	
Pyridine (CAS #: 110-86-1)	Carcinogen	

**WARNING:** This product can expose you to chemicals including Pyridine, which is known to the State of California to cause cancer.

For more information, go to <a href="http://www.P65Warnings.ca.gov">http://www.P65Warnings.ca.gov</a>

**IMERC:** Dispose of in accordance with local, state and federal regulations or laws.

## U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Pyridine	X	X	X
110-86-1			

#### **U.S. EPA Label Information**

### 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

#### **Special Comments**

None

## **Additional information**

## Global Automotive Declarable Substance List (GADSL)

Not applicable

## **NFPA and HMIS Classifications**

NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and chemical
				properties -
HMIS	Health hazards - 0	Flammability - 0	Physical hazards - 0	Personal protection -
		-	-	X
				- [

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

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ACGIH ACGIH (American Conference of Governmental Industrial Hygienists)

ATSDR 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)

INERISINERIS (The National Industrial Environment and Risks Institute)IPCS INCHEMIPCS INCHEM (International Programme on Chemical Safety)IUCLIDIUCLID (The International Uniform Chemical Information Database)NITEJapan National Institute of Technology and Evaluation (NITE)

NIH 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 (Registry of Toxic Effects of Chemical Substances)
SIDS (Screening Information Dataset) for High Volume Chemicals

SYKE The Finnish Environment Institute (SYKE)

USDA USDA (United States Department of Agriculture)
USDC (United States Department of Commerce)

WHO (World Health Organization)

## <u>Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION</u>

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

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

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 31-05-2018

Revision Date 26-Jan-2024

Revision Note None

**Disclaimer** 

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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©2023

**End of Safety Data Sheet** 

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# SAFETY DATA SHEET

**Issue Date** 06-Apr-2018 **Revision Date** 26-Jan-2024 **Version** 1.5 **Page** 1 / 15

### 1. IDENTIFICATION

**Product identifier** 

Product Name Cyanide, Sample Cuvette

Other means of identification

Product Code(s) TNT862R

Safety data sheet number M03656

UN/ID no UN3316

Recommended use of the chemical and restrictions on use

**Recommended Use** Water Analysis. Determination of cyanide.

Uses advised against Consumer use.

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

### 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

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

## 2. HAZARDS IDENTIFICATION

### Classification

### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Chronic aquatic toxicity	Category 2

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

### Signal word

Danger

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#### **Hazard statements**

- H314 Causes severe skin burns and eye damage
- H317 May cause an allergic skin reaction
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
- H411 Toxic to aquatic life with long lasting effects

### **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
- P285 In case of inadequate ventilation wear respiratory protection
- P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing
- P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
- P272 Contaminated work clothing should not be allowed out of the workplace
- P273 Avoid release to the environment
- P391 Collect spillage

#### Other Hazards Known

May be harmful if swallowed

Toxic to aquatic life

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Substance

Not applicable

#### **Mixture**

Chemical Family

Mixture.

Chemical nature No information available.

#### Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Phosphoric acid, disodium salt	7558-79-4	50 - 60%	-
Benzenesulfonamide, N-chloro-, sodium salt	127-52-6	10 - 20%	-

## 4. FIRST AID MEASURES

#### **Description of first aid measures**

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

attendance.

**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. May cause allergic respiratory reaction. Avoid direct contact with skin. Use

barrier to give mouth-to-mouth resuscitation.

**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present

and easy to do. Continue rinsing. 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. May cause an allergic skin reaction.

**Ingestion** Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person. Get immediate medical

advice/attention. May produce an allergic reaction.

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 contact with skin, eyes or clothing. 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. May cause allergy or asthma symptoms or breathing difficulties if

inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives.

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. May cause

sensitization in susceptible persons. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

surrounding environment.

**Unsuitable Extinguishing Media** Caution: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the** The product c

chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. Product is or contains a sensitizer. May cause sensitization by inhalation and skin contact. May cause sensitization by skin contact.

**Hazardous combustion products** Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Sodium oxides.

Phosphorus oxides. Chlorides.

Special protective equipment for

fire-fighters

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

6. ACCIDENTAL RELEASE MEASURES

**U.S. Notice**Only persons properly qualified to respond to an emergency involving hazardous

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substances may respond to a spill according to federal regulations (OSHA 29 CFR

1910.120(a)(v)) and per your company's emergency response plan and

guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should

respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate

ventilation. Use personal protective equipment as required. 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** 

Prevent further leakage or spillage if safe to do so. Should not be released into the **Environmental precautions** 

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 Take up mechanically, placing in appropriate containers for disposal.

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

See section 8 for more information. See section 13 for more information. Reference to other sections

## 7. HANDLING AND STORAGE

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Advice on safe handling

> 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. Provide extract ventilation to points where emissions occur. Remove contaminated

clothing and shoes.

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.

Flammability class Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational **Exposure Guidelines** 

exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

**Engineering Controls** Showers

Eyewash stations

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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** Wear suitable gloves. Impervious 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** Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

General Hygiene Considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do

not eat, drink or smoke when using this product. 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.

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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

Physical state Solid

Appearance flakes Color white

Odor Odorless Odor threshold Not applicable

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

Molecular weight Not applicable

pH No data available

Melting point / freezing point No data available

Initial boiling point and boiling range No data available

Evaporation rate Not applicable

Vapor pressure Not applicable

Relative vapor density No data available

Specific gravity - VALUE 1 No data available

Partition coefficient No data available

**Soil Organic Carbon-Water Partition** 

Coefficient

No data available

Autoignition temperature No data available

**Decomposition temperature**No data available

Dynamic viscosity Not applicable

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Kinematic viscosity

Not applicable

### 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

Chemical Name	Solubility classification	Solubility	Solubility Temperature_
None reported	Completely soluble	> 10000 mg/L	25 °C / 77 °F

### **Other information**

### **Metal Corrosivity**

Steel Corrosion Rate
Aluminum Corrosion Rate

Not applicable Not applicable

## **Volatile Organic Compounds (VOC) Content**

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Phosphoric acid, disodium salt	7558-79-4	No data available	-
Benzenesulfonamide, N-chloro-,	127-52-6	Not applicable	-
sodium salt			

### **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

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

### Chemical stability

Stable under normal conditions.

### **Explosion data**

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Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

### 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

Acids. Bases. Oxidizing agent.

### **Hazardous decomposition products**

Carbon monoxide. Carbon dioxide (CO2). Nitrogen oxides (NOx). Sodium oxides. Phosphorus oxides. Chlorides. 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. May cause sensitization in susceptible persons.

Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Eve contact

Causes serious eye damage. May cause irreversible damage to eyes.

Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Skin contact

May cause sensitization by skin contact. Corrosive. Causes severe burns. Avoid contact

with skin and clothing.

Causes burns. Ingestion causes burns of the upper digestive and respiratory tracts. May Ingestion

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. May cause additional

affects as listed under "Inhalation".

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing. Symptoms of allergic

> reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Itching. Rashes. Hives.

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	Key literature references and
---------------	-------------------------------

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	type	dose	time		sources for data
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		1150 mg/kg	None reported	None reported	ECHA

#### **Unknown Acute Toxicity**

16.824% of the mixture consists of ingredient(s) of unknown toxicity.

### **Acute Toxicity Estimations (ATE)**

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

ATEmix (oral)	3,089.90 mg/kg
ATEmix (dermal)	No information available
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.

#### **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
Phosphoric acid, disodium salt (50 - 60%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Skin irritant	RTECS
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Rabbit	500 mg	4 hours	Corrosive to skin	ECHA

## Serious eye damage/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
Phosphoric acid, disodium salt (50 - 60%) CAS#: 7558-79-4	Standard Draize Test	Rabbit	500 mg	24 hours	Eye irritant	RTECS

## Respiratory or skin sensitization

May cause sensitization by inhalation. May cause sensitization by skin contact.

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#### **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
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Guinea pig	Confirmed to be a skin sensitizer	ECHA

### **Respiratory Sensitization Exposure Route**

Chemical name	Test method	Species	Results	Key literature references and sources for data
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Human	Confirmed to be a respiratory sensitizer	Vendor SDS

### STOT - single exposure

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

#### **Mixture**

No data available.

## Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

### **STOT - repeated exposure**

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

#### **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
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6	Rat NOAEL	20 mg/kg	90 days	Nutritional and Gross Metabolic Weight loss Biochemical Changes in blood leukocyte count	ECHA

### Carcinogenicity

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

#### **Mixture**

No data available.

### **Ingredient Carcinogenicity Data**

No data available.

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Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Phosphoric acid, disodium salt	7558-79-4	1	-	-	1
Benzenesulfonamide, N-chloro-, sodium salt	127-52-6	-	-	-	-

### Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

### **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
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Salmonella typhimurium	5 mg/plate	None reported	Negative	ECHA

### Mixture invivo Data

No data available.

### Substance invivo 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	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Benzenesulfonamide,	Rat	120 mg/kg	Multiple	Nutritional and Gross	ECHA
N-chloro-, sodium salt	NOAEL		generations	Metabolic	
(10 - 20%)				Weight loss	
CAS#: 127-52-6				Effects on Newborn	
				Growth statistics (e.g. %	
				reduced weight gain)	
				Litter size (e.g. # fetuses per	
				litter: measured before birth)	

### **Aspiration hazard**

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

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# 12. ECOLOGICAL INFORMATION

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

**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
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Poecilia reticulata	LC <sub>50</sub>	17.6 mg/L	ECHA

#### Crustacea

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Daphina magna	EC50	4.77 mg/L	ECHA

### Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6		Desmodesmus spicatus	EC50	0.141 mg/L	ECHA

## **Aquatic Chronic Toxicity**

Test data reported below.

### Algae

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Benzenesulfonamide, N-chloro-, sodium salt (10 - 20%) CAS#: 127-52-6	,	None reported	NOEC	0.053 mg/L	ECHA

## Persistence and degradability

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Mixture

No data available.

**Bioaccumulation** 

There is no data for this product

**Mixture** 

No data available.

Partition coefficient No data available

**Mobility** 

Soil Organic Carbon-Water Partition Coefficient No data available

Other adverse effects
No information available

## 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.

US EPA Waste Number D002

## 14. TRANSPORT INFORMATION

DOT

UN/ID no UN3316

Proper shipping name CHEMICAL KITS

Transport hazard class(es) 9
Emergency Response Guide 171

Number

TDG

UN/ID no UN3316

Proper shipping name CHEMICAL KIT

Transport hazard class(es) 9
Packing Group | |

IATA

UN number or ID number UN3316
Proper shipping name UN3316
Chemical kit

Transport hazard class(es) 9
ERG Code 9L

Special Provisions A163, A44

<u>IMDG</u>

UN number or ID number UN3316

Proper shipping name CHEMICAL KIT

Transport hazard class(es)

EmS-No F-A, S-P Special Provisions 251, 340

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#### **Additional information**

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

### 15. REGULATORY INFORMATION

**National Inventories** 

TSCA Complies DSL/NDSL Complies

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

#### International Inventories

**EINECS/ELINCS** Complies **ENCS** Does not comply **IECSC** Complies **KECL** Complies Complies **PICCS TCSI** Complies **AICS** Complies **NZIoC** Complies

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

### **US Federal Regulations**

## **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

#### SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard Yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

#### **CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Phosphoric acid, disodium	5000 lb	-	-	X
salt				
7558-79-4				

### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
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Phosphoric acid, disodium salt	5000 lb	-	RQ 5000 lb final RQ
7558-79-4			RQ 2270 kg final RQ

## **US State Regulations**

### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

IMERC: Not applicable

### **U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	
Phosphoric acid, disodium salt	X	X	X	
7558-79-4				

#### **U.S. EPA Label Information**

Chemical name	FIFRA	FDA
Phosphoric acid, disodium salt	180.0910	21 CFR 182.1778,21 CFR 182.6290,21
		CFR 182.6778,21 CFR 182.8778

## 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

#### **Special Comments**

None

### **Additional information**

### **Global Automotive Declarable Substance List (GADSL)**

Not applicable

#### NFPA and HMIS Classifications

ſ	NFPA	Health hazards - 3	Flammability - 0	Instability - 0	Physical and chemical
L					properties -
Γ	HMIS	Health hazards - 2	Flammability - 0	Physical hazards - 0	Personal protection -
		- *			X
L					- I

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

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

CDC (Center for Disease Control)

CEPA CEPA (Canadian Environmental Protection Agency)

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)

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HSDB (Hazardous Substances Data Bank)

INERISINERIS (The National Industrial Environment and Risks Institute)IPCS INCHEMIPCS INCHEM (International Programme on Chemical Safety)IUCLIDIUCLID (The International Uniform Chemical Information Database)NITEJapan National Institute of Technology and Evaluation (NITE)

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 (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 (World Health Organization)

#### Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

MAC Maximum Allowable Concentration Ceiling Ceiling Limit Value

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-Apr-2018

Revision Date 26-Jan-2024

Revision Note None

#### 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** 

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