

# SAFETY DATA SHEET

Issue Date 10-Feb-2019 Revision Date 26-Jan-2024

Version 3.4

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1. IDENTIFICATION		
Product identifier Product Name	Lithium Hydroxide	
<u>Other means of identification</u> Product Code(s)	1416369	
Safety data sheet number	M00037	
UN/ID no	UN2680	
Recommended use of the chemi	cal and restrictions on use	
Recommended Use	Laboratory Use.	
Uses advised against	Consumer use.	
Restrictions on use	For Laboratory Use Only.	

#### 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
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1

# Hazards not otherwise classified (HNOC)

Not applicable

#### Label elements

Signal word Danger Product Code(s) 1416369 Issue Date 10-Feb-2019 Version 3.4 Product NameLithium HydroxideRevision Date26-Jan-2024Page2 / 13



#### Hazard statements

H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage

#### **Precautionary statements**

P270 - Do not eat, drink or smoke when using this product
P501 - Dispose of contents/ container to an approved waste disposal plant
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

### Other Hazards Known

None

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance Chemical Name Chemical Family Formula CAS No Alternate CAS Number Chemical nature

Lithium hydroxide monohydrate Inorganic Base. LiOH • H<sub>2</sub>O 1310-66-3 1310-66-3 - Monohydrate Inorganic Compound.

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

Chemical name	CAS No	Percent Range	HMRIC #
Lithium hydroxide monohydrate	1310-66-3	100%	-

### 4. FIRST AID MEASURES

Description of first aid measure	25
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. Keep
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	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.					
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.					
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 effe	cts, both acute and delayed					
Symptoms	Burning sensation.					
Indication of any immediate medica	al 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	5. FIRE-FIGHTING MEASURES Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.					
Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the					
	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.					
Unsuitable Extinguishing Media Specific hazards arising from the	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition					
Unsuitable Extinguishing Media Specific hazards arising from the chemical	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.					
Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. This material will not burn. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.					
Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. This material will not burn. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.					
Unsuitable Extinguishing Media Specific hazards arising from the chemical Hazardous combustion products Special protective equipment for fire-fighters U.S. Notice	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Caution: Use of water spray when fighting fire may be inefficient. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. This material will not burn. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. <b>6. ACCIDENTAL RELEASE MEASURES</b> 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					

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

Environmental precautions

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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 containm	ent 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.
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. 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. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.
Flammability class	Not applicable

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies
Showers Eyewash stations Ventilation systems.
ch as personal protective equipment No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Wear suitable gloves. Impervious 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.
Face protection shield.
Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.
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

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	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 Appearance Odor	powder Suffocating	Solid		Color Odor threshold	white No informat	ion available
Property_			Values			Remarks • Method
Molecular weigh	t		41.96 g/mole			
рН			13.4			1% @ 20°C
Melting point / fr	eezing point		471 °C / 87	9.8 °F		
Initial boiling poi	nt and boiling rang	je	No data availal	ble		
Evaporation rate			Not applicable			
Vapor pressure			Not applicable			
Relative vapor de	ensity		No data availa	able		
Specific gravity -	VALUE 1		1.51			
Partition coeffici	ent		log K <sub>ow</sub> ~ 0			
Soil Organic Car Coefficient	bon-Water Partitio	n	log K <sub>oc</sub> ~ 0			
Autoignition tem	perature		No data availal	ble		
Decomposition t	emperature		923.9 °C / 16	695 °F		
Dynamic viscosi	ty		Not applicable			
Kinematic viscos	sity		Not applicable			

# Solubility(ies)

# Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	128000 mg/L	20 °C / 68 °F

# Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Ethyl alcohol	Soluble	> 1000 mg/L	25 °C / 77 °F
Acids	Soluble	> 1000 mg/L	25 °C / 77 °F

# **Other information**

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# Metal Corrosivity

Classified as corrosive to metal according to GHS criteria Steel Corrosion Rate Aluminum Corrosion Rate

.? mm/yr 3990.83 in/yr No data available

#### Volatile Organic Compounds (VOC) Content

This Product is by Weight 100% an Individual Pure Chemical Substance

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Lithium hydroxide monohydrate	1310-66-3	No data available	-

#### **Explosive properties**

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	Not applicable
Flammability Limit in Air Upper flammability limit: Lower flammability limit:	No data available No data available
Oxidizing properties	No data available.
Bulk density	550 kg/m³

# **10. STABILITY AND REACTIVITY**

#### Reactivity Not applicable.

<u>Chemical stability</u> 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

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

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	

Acute toxicity Harmful if swallowed

# Mixture

If available, see ingredient data below.

#### **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
Lithium hydroxide monohydrate (100%) CAS#: 1310-66-3	Rat LD50	120 mg/kg	None reported	None reported	LOLI

#### Inhalation (Dust/Mist) Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Lithium hydroxide monohydrate (100%) CAS#: 1310-66-3	Rat LC <sub>50</sub>	0.96 mg/L	4 hours	None reported	LOLI

#### Unknown Acute Toxicity

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

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

Not applicable

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

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

Causes severe burns.

#### Mixture

If available, see ingredient data below.

#### 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
Lithium hydroxide monohydrate (100%) CAS#: 1310-66-3	Existing human experience	Human	None reported	None reported	Corrosive to skin	ERMA

#### Serious eye damage/irritation

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

#### Mixture

If available, see ingredient data below.

#### Ingredient Eye Damage/Eye Irritation Data

No data available.

#### **Respiratory or skin sensitization**

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

#### Mixture

If available, see ingredient data below.

#### **Ingredient Sensitization Data**

No data available.

#### STOT - single exposure

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

#### Mixture

If available, see ingredient data below.

# 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

If available, see ingredient data below.

#### **Ingredient Specific Target Organ Toxicity Repeat Exposure Data** No data available.

#### Carcinogenicity

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

#### Mixture

If available, see ingredient data below.

#### Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Lithium hydroxide	1310-66-3	-	-	-	-
monohydrate					

#### 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** If available, see ingredient data below.

# Substance invitro Data No data available.

**Mixture** invivo **Data** If available, see ingredient data below.

#### **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

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

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.
<u>Mixture</u>	
Aquatic Acute Toxicity If available, see ingredient data below.	

**12. ECOLOGICAL INFORMATION** 

Aquatic Chronic Toxicity If available, see ingredient data below.

#### Substance

#### **Aquatic Acute Toxicity**

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No data available.		
Aquatic Chronic Toxicity No data available.		
Persistence and degradability		
<b>Mixture</b> No data available.		
<u>Bioaccumulation</u> There is no data for this product <b>Mixture</b> No data available.		
Partition coefficient	log K <sub>ow</sub> ~ 0	
Mobility		
Soil Organic Carbon-Water Partition Coefficient	log K <sub>oc</sub> ~ 0	
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
Special instructions for disposal	If permitted by regulation. Open cold water tap completely, slowly pour the reacted material
Special instructions for disposal	to the drain Dilute to 3 to 5 times the volume with cold water. Flush system with plenty of

br disposal If permitted by regulation. Open cold water tap completely, slowly pour the reacted material to the drain. Dilute to 3 to 5 times the volume with cold water. Flush system with plenty of water. Adjust to a pH between 6 and 9 with an acid, such as sulfuric or citric. Check with national, local municipal and state authorities and waste contractors for pertinent local information on the disposal of this article. Filter to remove solids.

# **14. TRANSPORT INFORMATION**

DOT UN/ID no Proper shipping name Transport hazard class(es) Packing Group Emergency Response Guide Number	UN2680 Lithium Hydroxide 8 II 154
TDG UN/ID no Proper shipping name Transport hazard class(es) Packing Group	UN2680 Lithium hydroxide 8 II

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UN number or ID number	UN2680
Proper shipping name	Lithium hydroxide
Transport hazard class(es)	8
Packing group	II
ERG Code	8L

IMDG

UN number or ID number	UN2680
Proper shipping name	Lithium hydroxide
Transport hazard class(es)	8
Packing Group	II
EmS-No	F-A, S-B

Note:

No special precautions necessary.

#### 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**

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	Complies
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

#### SARA 311/312 Hazard Categories

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

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#### **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:** 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
Lithium hydroxide monohydrate	Х	-	-
1310-66-3			

#### **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 - 3	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 3	Flammability - 0	Physical hazards - 0	Personal protection -
				- I

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

FDA	FDA (Food & Drug Administration)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
ERMA	ERMA (New Zealands Environmental Risk Management Authority)
EPA	EPA (Environmental Protection Agency)
EEA	EEA (European Environment Agency)
ECHA	ECHA (The European Chemicals Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
CEPA	CEPA (Canadian Environmental Protection Agency)
CDC	CDC (Center for Disease Control)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)

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HSDB INERIS IPCS INCHEM IUCLID NITE NIH NIOSH LOLI NDF NICNAS NIOSH IDLH OSHA PEEN RTECS SIDS SYKE USDA USDC WHO		GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance) HSDB (Hazardous Substances Data Bank) INERIS (The National Industrial Environment and Risks Institute) IPCS INCHEM (International Programme on Chemical Safety) IUCLID (The International Uniform Chemical Information Database) Japan National Institute of Technology and Evaluation (NITE) NIH (National Institute of Technology and Evaluation (NITE) NIH (National Institute for Occupational Safety and Health) LOLI (List of Lists - An International Chemical Regulatory Database) no data Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) 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 The Finnish Environment Institute (SYKE) USDA (United States Department of Agriculture) USDC (United States Department of Commerce) WHO (World Health Organization)		
TWA	TWA (time-weighted average)		STEL	STEL (Short Term Exposure Limit)
MAC	Maximum Allowable Concentration		Ceiling	Ceiling Limit Value
Х	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* RSP+ C M	Skin designation Respiratory sensitization Carcinogen mutagen		SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant
Prepared By	By Hach Product Compliance			
Issue Date		10-Feb-2019		
Revision Date		26-Jan-2024		
<b>Revision Note</b>		None		
<b>Disclaimer</b>				

<u>Disclaimer</u>

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