



**Be Right™**

# SAFETY DATA SHEET

Issue Date 07-Oct-2018

Revision Date 03-Jan-2019

Version 1.3

## 1. Identification

### Product identifier

**Product Name** Cyclohexanone

### Other means of identification

**Product Code(s)** 1403332

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory reagent. Solvent.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

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

#### **Emergency telephone number**

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

## 2. Hazards identification

### Classification

Flammable liquids	Category 3 - (H226)
Acute toxicity - Oral	Category 4 - (H302)
Acute toxicity - Dermal	Category 3 - (H311)
Acute toxicity - Inhalation (Vapors)	Category 4 - (H332)
Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Specific target organ toxicity (single exposure)	Category 1 - (H370)
Specific target organ toxicity (repeated exposure)	Category 1 - (H372)

### Label elements

**Signal word** - Danger

#### **Hazard statements**

H226 - Flammable liquid and vapor  
H302 - Harmful if swallowed  
H311 - Toxic in contact with skin  
H315 - Causes skin irritation  
H318 - Causes serious eye damage

H332 - Harmful if inhaled  
 H370 - Causes damage to organs  
 H372 - Causes damage to organs through prolonged or repeated exposure



Flame  
 Skull and crossbones  
 Health hazard  
 Corrosion

#### Precautionary statements

P270 - Do not eat, drink or smoke when using this product  
 P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor 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/face protection  
 P302 + P352 - IF ON SKIN: Wash with plenty of water and soap  
 P405 - Store locked up  
 P271 - Use only outdoors or in a well-ventilated area  
 P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing  
 P332 + P313 - If skin irritation occurs: Get medical advice/attention  
 P362 + P364 - Take off contaminated clothing and wash it before reuse  
 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  
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
 P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking  
 P233 - Keep container tightly closed  
 P240 - Ground and bond container and receiving equipment  
 P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment  
 P242 - Use non-sparking tools  
 P243 - Take action to prevent static discharges  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]  
 P403 + P235 - Store in a well-ventilated place. Keep cool

#### Other Hazards Known

Not applicable

### 3. Composition/information on ingredients

#### Substance

**Chemical Family** Ketones.

**Formula** C<sub>6</sub>H<sub>10</sub>O

Chemical name	CAS No.	Synonyms	Percent Range
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Cyclohexanone	108-94-1	No information available	100%
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#### 4. First aid measures

##### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.
<b>Eye contact</b>	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. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention.
<b>Ingestion</b>	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.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.

##### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.
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##### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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#### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
<b>Hazardous combustion products</b>	Carbon monoxide, Carbon dioxide.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	Yes.
<b>Special protective actions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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

**Other information** Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

**Environmental precautions** Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

### Methods and material for containment and cleaning up

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

**Methods for cleaning up** Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

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

## 7. Handling and storage

### Precautions for safe handling

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

### Conditions for safe storage, including any incompatibilities

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

## 8. Exposure controls/personal protection

### Control parameters

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

Chemical name	TWA	STEL	Ceiling Limit Value
Cyclohexanone 108-94-1	50 ppm 200 mg/m <sup>3</sup>	100 ppm 400 mg/m <sup>3</sup>	-

#### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

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

**Eye/face protection** Tight sealing safety goggles.

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

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

**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.

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

## 9. Physical and chemical properties

#### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid	Liquid	<b>Color</b>	white light yellow
<b>Appearance</b>	Liquid		<b>Odor threshold</b>	0.12 ppm
<b>Odor</b>	Peppermint Acetone			

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>Molecular weight</b>	98.14 g/mole	
<b>pH</b>	7	
<b>Melting point/freezing point</b>	-29 °C / -20 °F	
<b>Boiling point / boiling range</b>	156 °C / 313 °F	
<b>Evaporation rate</b>	0.29 (water = 1)	
<b>Vapor pressure</b>	4.35 mm Hg / 0.58 kPa at 25 °C / 77 °F	
<b>Vapor density (air = 1)</b>	3.4	Air = 1
<b>Specific gravity (water = 1 / air = 1)</b>	0.947	
<b>Partition Coefficient (n-octanol/water)</b>	log K <sub>ow</sub> = 0.81	

<b>Soil Organic Carbon-Water Partition Coefficient</b>	log K <sub>oc</sub> = 1.56
<b>Autoignition temperature</b>	420 °C / 788 °F
<b>Decomposition temperature</b>	No data available
<b>Dynamic viscosity</b>	2.02 cP (mPa s) at 25 °C / 77 °F
<b>Kinematic viscosity</b>	2.133 cSt (mm <sup>2</sup> /s) at 25 °C / 77 °F

**Solubility(ies)****Water solubility**

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	80000 mg/L	20 °C / 68 °F

**Solubility in other solvents**

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Ethyl alcohol	Soluble	> 1000 mg/L	25 °C / 77 °F
Most Organic Solvents	Soluble	> 1000 mg/L	25 °C / 77 °F

**Other Information****Metal Corrosivity**

<b>Steel Corrosion Rate</b>	No data available
<b>Aluminum Corrosion Rate</b>	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)
Cyclohexanone	108-94-1	No data available	X

**Explosive properties**

<b>Upper explosion limit</b>	8.1%
<b>Lower explosion limit</b>	1.1%

**Flammable properties**

<b>Flash point</b>	44 °C / 111 °F
<b>Method</b>	CC (closed cup)

**Flammability Limit in Air**

<b>Upper flammability limit</b>	No data available
<b>Lower flammability limit</b>	No data available

**Oxidizing properties**

No data available.

**Bulk density**

No data available

## 10. Stability and reactivity

**Reactivity**

No information available.

<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Heat, flames and sparks. Excessive heat.
<b>Incompatible materials</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.

## 11. Toxicological information

### Information on Likely Routes of Exposure

#### Product Information

<b>Inhalation</b>	May cause irritation of respiratory tract. Harmful by inhalation.
<b>Eye contact</b>	Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes.
<b>Skin contact</b>	Causes skin irritation. Toxic in contact with skin.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.
<b>Symptoms</b>	Redness. Burning. May cause blindness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

#### Acute toxicity

Based on available data, the classification criteria are not met

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

If available, see ingredient data below.

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

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Rat LD <sub>50</sub>	1296 mg/kg	None reported	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Rabbit LD <sub>50</sub>	984 mg/kg	None reported	None reported	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Rat LC <sub>50</sub>	6.2 mg/L	4 hours	None reported	RTECS (Registry of Toxic Effects of Chemical Substances)

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

Not applicable

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

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

**Skin corrosion/irritation**

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

**Product Skin Corrosion/Irritation Data**

If available, see ingredient data below.

**Ingredient Skin Corrosion/Irritation Data**

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Open Irritation Test	Rabbit	500 mg	None reported	Skin irritant	RTECS (Registry of Toxic Effects of Chemical Substances)

**Serious eye damage/eye irritation**

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

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

If available, see ingredient data below.

**Ingredient Eye Damage/Eye Irritation Data**

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Standard Draize Test	Rabbit	0.25 mg	24 hours	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

**Respiratory or skin sensitization**

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

**Product Sensitization Data**

If available, see ingredient data below.

**Ingredient Sensitization Data**

No data available.

**STOT - single exposure**

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

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

If available, see ingredient data below.

**Ingredient Specific Target Organ Toxicity Single Exposure Data**

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Rat	19 mg/L	None reported	<b>Blood</b> Changes in spleen	No information available

**STOT - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.



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

If available, see ingredient data below.

**Ingredient Specific Target Organ Toxicity Repeat Exposure Data**

No data available.

**Carcinogenicity****Product Carcinogenicity Data**

If available, see ingredient data below.

**Ingredient Carcinogenicity Data**

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
Cyclohexanone	108-94-1	A3	Group 3	-	-

**Legend**

<b>ACGIH (American Conference of Governmental Industrial Hygienists)</b>	A3 - Animal Carcinogen
<b>IARC (International Agency for Research on Cancer)</b>	Group 3 - Not classifiable as a human carcinogen
<b>NTP (National Toxicology Program)</b>	Does not apply
<b>OSHA (Occupational Safety and Health Administration of the US Department of Labor)</b>	Does not apply

**Germ cell mutagenicity**

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

**Product Germ Cell Mutagenicity invitro Data**

If available, see ingredient data below.

**Ingredient Germ Cell Mutagenicity invitro Data**

No data available.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	Cytogenetic analysis	Human leukocyte	0.1 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

**Product Germ Cell Mutagenicity invivo Data**

If available, see ingredient data below.

**Ingredient Germ Cell Mutagenicity invivo Data**

No data available.

**Reproductive toxicity**

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

**Product Reproductive Toxicity Data**

No data available.

**Ingredient Reproductive Toxicity Data**

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Cyclohexanone	Rat	0.105 mg/L	20 days	<b>Effects on Fertility</b>	RTECS (Registry of Toxic

(100%) CAS#: 108-94-1	TC <sub>Lo</sub>			Pre-implantation mortality (e.g. reduction in number of implants per female; total number of implants per corpora lutea)	Effects of Chemical Substances)
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**Aspiration hazard**

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

## 12. Ecological information

**Ecotoxicity****Unknown aquatic toxicity**

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

**Product Ecological Data****Aquatic Acute Toxicity**

If available, see ingredient data below.

**Aquatic Chronic Toxicity**

If available, see ingredient data below.

**Ingredient Ecological Data****Aquatic Acute Toxicity**

No data available.

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	96 hours	<i>Pimephales promelas</i>	LC <sub>50</sub>	576 mg/L	IUCLID (The International Uniform Chemical Information Database)
Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Cyclohexanone (100%) CAS#: 108-94-1	48 Hours	<i>Daphina magna</i>	EC <sub>50</sub>	820 mg/L	IUCLID (The International Uniform Chemical Information Database)

**Aquatic Chronic Toxicity**

No data available.

**Persistence and degradability****Product Biodegradability Data**

No data available.

**Bioaccumulation****Product Bioaccumulation Data**

No data available.

**Partition Coefficient (n-octanol/water)**

log K<sub>ow</sub> = 0.81

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

log K<sub>oc</sub> = 1.56

**Other adverse effects**

No information available.

## 13. Disposal considerations

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

Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging**

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

**14. Transportation information**

**MEX**  
Description Not regulated  
UN1915, Cyclohexanone, 3, III

**Note:** No special precautions necessary.

**TDG**  
UN/ID no UN1915  
Proper shipping name Cyclohexanone  
Hazard Class 3  
Packing Group III

**U.S. DOT**  
UN/ID no UN1915  
Proper shipping name Cyclohexanone  
Hazard Class 3  
Packing Group III  
Emergency Response Guide Number 127

**ICAO (air)**  
Description Not regulated  
UN1915, Cyclohexanone, 3, III

**IATA**  
UN/ID no UN1915  
Hazard Class 3  
Packing Group III  
ERG Code 127

**IMDG**  
UN/ID no UN1915  
Hazard Class 3  
Packing Group III

**RID**  
Description Not regulated  
UN1915, Cyclohexanone, 3, III

**ADR**  
UN/ID no UN1915  
Proper shipping name Cyclohexanone  
Hazard Class 3  
Packing Group III

**ADN**  
Description Not regulated  
UN1915, Cyclohexanone, 3, III

**Additional information**

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

If the item is part of a reagent set or kit the classification would change to the following:  
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

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

## 15. Regulatory information

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

#### International Regulations

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

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

#### International Inventories

<b>TSCA</b>	Complies.
<b>DSL/NDSL</b>	Complies.
<b>EINECS/ELINCS</b>	Complies.
<b>ENCS</b>	Complies.
<b>IECSC</b>	Complies.
<b>KECL</b>	Complies.
<b>PICCS</b>	Complies.
<b>AICS</b>	Complies.

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

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

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

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

## 16. Other information

<b>NFPA</b>	<b>Health hazards</b> 3	<b>Flammability</b> 2	<b>Instability</b> 0	<b>Physical and chemical properties</b> -
<b>HMIS</b>	<b>Health hazards</b> 3 *	<b>Flammability</b> 2	<b>Physical hazards</b> 0	<b>Personal protection</b> X

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

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

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	SKN*	Skin designation

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

Agency for Toxic Substances and Disease Registry (ATSDR)  
 U.S. Environmental Protection Agency ChemView Database  
 European Food Safety Authority (EFSA)  
 EPA (Environmental Protection Agency)  
 Acute Exposure Guideline Level(s) (AEGl(s))  
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
 U.S. Environmental Protection Agency High Production Volume Chemicals  
 Food Research Journal  
 Hazardous Substance Database  
 International Uniform Chemical Information Database (IUCLID)  
 Japan GHS Classification  
 Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
 NIOSH (National Institute for Occupational Safety and Health)  
 National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
RTECS (Registry of Toxic Effects of Chemical Substances)  
World Health Organization

**Prepared By** Hach Product Compliance Department.

**Issue Date** 07-Oct-2018

**Revision Date** 03-Jan-2019

**Revision Note** None

**NOM-018-STPS-2015**

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

Disclaimer

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

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

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**End of Safety Data Sheet**