

## 1. Product and Company Identification

<b>Product identifier</b>	Tri-Pow'r HD (4371-88, 4371-86, 4371-81)
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Heavy duty cleaner
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Corrosive to metals	Category 1
<b>Health hazards</b>	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



**Signal word** Danger

**Hazard statement** May be corrosive to metals. Causes severe skin burns and eye damage.

**Precautionary statement**

**Prevention**

Keep only in original packaging. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves, protective clothing, eye protection and face protection.

**Response**

Absorb spillage to prevent material-damage.  
 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Storage**

Store locked up. Store in a corrosion resistant container with a resistant inner liner.

**Disposal**

Dispose of container in accordance with local, regional, national and international regulations.

**WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** None known

**WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** None known

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/Information on Ingredients

**Mixture**

Chemical name	Common name and synonyms	CAS number	%
Alkyl polyglycoside		110615-47-9	1-5*
Potassium hydroxide		1310-58-3	3-7*
Silicic acid, sodium salt		1344-09-8	3-7*
Sodium carbonate		497-19-8	1-5*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

**Composition comments** US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.  
\*CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret.

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#### 4. First Aid Measures

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<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.
<b>Skin contact</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor. Wash contaminated clothing before reuse.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.
<b>Most important symptoms/effects, acute and delayed</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat patient symptomatically.
<b>General information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Wear rubber gloves and chemical splash goggles. Keep out of reach of children.

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#### 5. Fire Fighting Measures

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<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not available.
<b>Specific hazards arising from the chemical</b>	Firefighters should wear a self-contained breathing apparatus.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.

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#### 6. Accidental Release Measures

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<b>Personal precautions, protective equipment and emergency procedures</b>	Keep people away from and upwind of spill/leak. Keep out of low areas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb spillage to prevent material damage. Absorb in vermiculite, dry sand or earth and place into containers. Never return spills to original containers for re-use. Clean surface thoroughly to remove residual contamination. Following product recovery, flush area with water. Prevent entry into waterways, sewer, basements or confined areas. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters.

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#### 7. Handling and Storage

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<b>Precautions for safe handling</b>	Avoid contact with eyes, skin and clothing. Do not breathe mist or vapor. Wear appropriate personal protective equipment. Use only with adequate ventilation. Avoid prolonged exposure. Use good industrial hygiene practices in handling this material. Wash thoroughly after handling.
<b>Conditions for safe storage, including any incompatibilities</b>	Store in a corrosion resistant container with a resistant inner liner. Store in a cool, dry place out of direct sunlight. Store locked up. Store away from incompatible materials (see Section 10 of the SDS). Keep out of the reach of children.

## 8. Exposure Controls/Personal Protection

### Occupational exposure limits

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### US. ACGIH Threshold Limit Values

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
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Potassium hydroxide (CAS 1310-58-3)	Ceiling	2 mg/m <sup>3</sup>
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### Biological limit values

No biological exposure limits noted for the ingredient(s).

### Exposure guidelines

Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.

### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

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

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

##### Hand protection

Impervious gloves. Confirm with reputable supplier first.

##### Other

As required by employer code.

#### Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

#### Thermal hazards

Not applicable.

### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product. When using do not eat or drink.

## 9. Physical and Chemical Properties

**Appearance** Clear

**Physical state** Liquid.

<b>Form</b>	Liquid
<b>Color</b>	Orange
<b>Odor</b>	Pine
<b>Odor threshold</b>	Not available.
<b>pH</b>	12.5 (5%) 13.3 (Concentrate)
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available
<b>Flammability limit - upper (%)</b>	Not available
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Complete
<b>Auto-ignition temperature</b>	Not available
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.

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## 10. Stability and Reactivity

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<b>Reactivity</b>	May react with incompatible materials.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Do not mix with other chemicals. Hazardous vapours may be produced when mixed with chlorinated detergents or sanitizers.
<b>Incompatible materials</b>	Oxidizing agents. Acids. Maleic anhydride.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.

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## 11. Toxicological Information

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<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
<b>Information on likely routes of exposure</b>	
<b>Ingestion</b>	Causes digestive tract burns. May cause stomach distress, nausea or vomiting.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes serious eye damage.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	Causes burns.

Components	Species	Test Results
Alkyl polyglycoside (CAS 110615-47-9)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	> 5000 mg/kg, ECHA > 2000 mg/kg, ECHA
Potassium hydroxide (CAS 1310-58-3)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	388 mg/kg, ECHA 365 mg/kg, ECHA 333 mg/kg, ECHA 273 mg/kg
Silicic acid, sodium salt (CAS 1344-09-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Rat	> 2.1 mg/L, 4 Hours, ECHA
<i>Oral</i>		
LD50	Mouse	1100 mg/kg, Toxic and Hazardous Industrial Chemicals Safety Manual. Tokyo, Japan
	Rat	5150 mg/kg, ECHA 3400 mg/kg, ECHA 1.1 g/kg, HSDB
Sodium carbonate (CAS 497-19-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	> 2000 mg/kg, ECHA
	Rat	> 2000 mg/kg, ECHA
<i>Inhalation</i>		
LC50	Guinea pig	800 mg/m3, 2 Hours, ECHA 0.8 mg/L, 2 Hours
	Mouse	1200 mg/m3, 2 Hours, ECHA 1.2 mg/L, 2 Hours
	Rat	2300 mg/m3, 2 Hours, ECHA 2.3 mg/L, 2 Hours
<i>Oral</i>		
LD50	Rat	4090 mg/kg, RTECS 2800 mg/kg, ECHA, HSDB
<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	

<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.
<b>Corneal opacity value</b>	Not available.
<b>Iris lesion value</b>	Not available.
<b>Conjunctival reddening value</b>	Not available.
<b>Conjunctival oedema value</b>	Not available.
<b>Recover days</b>	Not available.
<b>Respiratory or skin sensitization</b>	
<b>Canada - Alberta OELs: Irritant</b>	
Potassium hydroxide (CAS 1310-58-3)	Irritant
<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.
<b>Mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	Not classified.
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	
Not listed.	
<b>Reproductive toxicity</b>	Not classified.
<b>Teratogenicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not classified.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

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## 12. Ecological Information

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<b>Ecotoxicity</b>	See below		
<b>Ecotoxicological data</b>			
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Potassium hydroxide (CAS 1310-58-3)			
<b>Aquatic</b>			
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	80 mg/L, 96 hours
Silicic acid, sodium salt (CAS 1344-09-8)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Ceriodaphnia dubia</i> )	0.28 - 0.57 mg/L, 48 hours
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	1800 mg/L, 96 hours
Sodium carbonate (CAS 497-19-8)			
Crustacea	EC50	Daphnia	265 mg/L, 48 Hours
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Ceriodaphnia dubia</i> )	156.6 - 298.9 mg/L, 48 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	300 mg/L, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Mobility in soil</b>	No data available.		
<b>Mobility in general</b>	Not available.		
<b>Other adverse effects</b>	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		

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## 13. Disposal Considerations

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<b>Disposal instructions</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

**Transport of Dangerous Goods (TDG) Proof of Classification** Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

**U.S. Department of Transportation (DOT)****Basic shipping requirements:**

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	Corrosive liquid, basic, inorganic, n.o.s.
<b>Technical name</b>	POTASSIUM HYDROXIDE
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	386, B2, IB2, T11, TP2, TP27
<b>Packaging exceptions</b>	<0.3 gallons - Limited Quantity

**Transportation of Dangerous Goods (TDG - Canada)****Basic shipping requirements:**

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
<b>Technical name</b>	POTASSIUM HYDROXIDE
<b>Hazard class</b>	8
<b>Packing group</b>	II
<b>Special provisions</b>	16
<b>Packaging exceptions</b>	<1L - Limited Quantity

**DOT****TDG**

## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS 2015 Exemptions** Not applicable

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

All chemicals used are on the TSCA inventory.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Potassium hydroxide (CAS 1310-58-3) Listed.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
 Delayed Hazard - No  
 Fire Hazard - No  
 Pressure Hazard - No  
 Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**  
 Not regulated.

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**US state regulations** See below**US - California Hazardous Substances (Director's): Listed substance**

Potassium hydroxide (CAS 1310-58-3) Listed.

**US - Illinois Chemical Safety Act: Listed substance**

Potassium hydroxide (CAS 1310-58-3)

**US - Louisiana Spill Reporting: Listed substance**

Potassium hydroxide (CAS 1310-58-3) Listed.

**US - Minnesota Haz Subs: Listed substance**

Potassium hydroxide (CAS 1310-58-3) Listed.

**US - New Jersey RTK - Substances: Listed substance**

Potassium hydroxide (CAS 1310-58-3)

**US - Texas Effects Screening Levels: Listed substance**

Potassium hydroxide (CAS 1310-58-3) Listed.

Silicic acid, sodium salt (CAS 1344-09-8) Listed.

Sodium carbonate (CAS 497-19-8) Listed.

**US. Massachusetts RTK - Substance List**

Potassium hydroxide (CAS 1310-58-3)

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Potassium hydroxide (CAS 1310-58-3)

**US. Rhode Island RTK**

Potassium hydroxide (CAS 1310-58-3)

**US. California Proposition 65**

Not Listed.

**Inventory status**

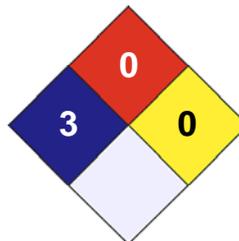
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

## 16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	/ 3
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X



### Disclaimer

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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### Version #

01

### Effective date

13-November-2018

### Prepared by

Nu-Calgon Technical Service Phone: (314) 469-7000

### Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.