



# SAFETY DATA SHEET

Preparation Date: 10/19/2015 Revision Date: 10/19/2015 Revision Number: G1

### 1. IDENTIFICATION

**Product identifier** 

Product code: P-377

Product Name: POTASSIUM HYDROXIDE, 10 PERCENT (W/V) SOLUTION

Other means of identification

Synonyms: No information available

CAS #: Mixture
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use:
Uses advised against
No information available.
No information available

Supplier: Spectrum Chemical Mfg. Corp

14422 South San Pedro St.

Gardena, CA 90248 (310) 516-8000

Order Online At: https://www.spectrumchemical.com

Emergency telephone numberChemtrec 1-800-424-9300Contact Person:Martin LaBenz (West Coast)Contact Person:Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

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

Skin corrosion/irritation	Category 1Sub-category B
Serious eye damage/eye irritation	Category 1
Corrosive to metals	Category 1

#### Label elements

Danger SDS #522

#### Hazard statements

Causes severe skin burns and eye damage

May be corrosive to metals



#### Hazards not otherwise classified (HNOC)

Not Applicable

#### Other hazards

Not available

#### **Precautionary Statements - Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Keep only in original container

#### **Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor/physician

Specific treatment (see .? on this label)

Absorb spillage to prevent material damage

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/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

#### **Precautionary Statements - Storage**

Store locked up

Store in corrosive resistant/ .? container with a resistant inner liner

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Water	7732-18-5	90.8	*
7732-18-5			
Potassium Hydroxide	1310-58-3	9.2	*
1310-58-3			

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### 4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional

> assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First

aider needs to protect himself.

**Skin Contact:** Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for

at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention

is required. Call a physician immediately.

Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician **Eye Contact:** 

immediately.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.

WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth

resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician

immediately.

Do not induce vomiting without medical advice. Never give anything by mouth to an Ingestion:

unconscious person. If victim is conscious, give water or milk. Immediate medical attention is

required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms

Severe skin and eye irritation or burns. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. May cause abdominal pain, nausea, vomiting, diarrhea. Causes chemical burns to the respiratory tract. May cause inflammation of the lungs (pneumonitis). May cause pulmonary edema. Coughing. Dyspnea (Shortness of breath and difficulty breathing).

Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

**Protection of first-aiders** 

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media** 

Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire,

extinguish the fire using an agent suitable for the type of

surrounding fire.

**Unsuitable Extinguishing Media:** No information available.

Specific hazards arising from the chemical

**Hazardous Combustion Products:** No information available.

Specific hazards: No information available.

**Special Protective Actions for Firefighters** 

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SDS #522 No information available. **Specific Methods:** 

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus

pressure-demand, MSHA/NIOSH (approved or equivalent)

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and full protective gear

### 6. ACCIDENTAL RELEASE MEASURES

## Personal precautions, protective equipment and emergency procedures

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch **Personal Precautions:** 

damaged containers or spilled material unless wearing appropriate protective clothing. Avoid

contact with skin, eyes and clothing. Use personal protective equipment.

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

environment. Do not let product enter drains. Do not flush into surface water or

sanitary sewer system. Prevent entry into waterways, sewers, basements or confined

areas.

## Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk.

Methods for cleaning up Neutralize with a dilute solution of acetic acid. Dilute with water. Absorb spill with

inert material (e.g. dry sand or earth), then place in a chemical waste container.

Clean contaminated surface thoroughly.

#### 7. HANDLING AND STORAGE

#### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

#### Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapors or spray mist. Handle in accordance with good industrial hygiene and safety practice.

#### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Moisture sensitive.

#### **Incompatible Materials:**

Oxidizing agents. Acids. Metals. Powdered metals. Organic materials. Alcohols. Halogens. halogenated hydrocarbons. Acid anhydrides. Acid chlorides. Nitro compounds.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### **Control parameters**

#### National occupational exposure limits

## **United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Water	None	None	None	None
7732-18-5				

**Product name: POTASSIUM** Product code: P-377

	None	2 mg/m <sup>3</sup> Ceiling	2 mg/m <sup>3</sup> Ceiling	None C 11500
1310-58-3				SDS #522

#### Canada

Components	Alberta	British Columbia	Ontario	Quebec
Water	None	None	None	None
7732-18-5				
Potassium Hydroxide	2 mg/m <sup>3</sup> Ceiling	2 mg/m <sup>3</sup> Ceiling	2 mg/m <sup>3</sup> Ceiling	2 mg/m³ Ceiling
1310-58-3				

#### **Australia and Mexico**

Components	Australia	Mexico
Water	None	None
7732-18-5		
Potassium Hydroxide	None	None
1310-58-3		

# **Appropriate engineering controls**

**Engineering measures to reduce exposure:** Ensure adequate ventilation. Provide exhaust ventilation or

other engineering controls to keep the airborne

concentrations of vapors and mist below their respective

threshold limit value.

## Individual protection measures, such as personal protective equipment

**Personal Protective Equipment** 

Product code: P-377

Eye protection: Face-shield

**Skin and body protection:** Chemical resistant protective suit Gloves Boots

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and

immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Appearance: Color:

Liquid Clear. Colorless.

Odor: Taste Molecular/Formula weight:

No information available 
No information available 
No information available

Formula: Flammability: Flashpoint (°C/°F):

Flash point (°C): Flash Point Tested according to: Autoignition Temperature (°C/°F):

No data available Not available No information available

Lower Explosion Limit (%): Upper Explosion Limit (%): pH:

No information available No information available No information available

Melting point/range(°C/°F): Boiling point/range(°C/°F): Decomposition temperature(°C/°F):

No information available 
No information available 
No information available

Bulk density: Density (g/cm3): Specific gravity:

No information available No information available 1.08

Vapor pressure @ 20°C (kPa): Evaporation rate: Vapor density:

No information available

No information available

The highest known value is 0.62

(water)

VOC content (g/L):Odor threshold (ppm):Partition coefficientNo information availableNo information available(n-octanol/water):

No information available

Viscosity: Miscibility: Solubility:

No information available

No information available

Easily soluble in cold water

Easily soluble in hot water

SDS #522

### 10. STABILITY AND REACTIVITY

Reactivity

Product code: P-377

#### 10. STABILITY AND REACTIVITY

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For Potassium Hydroxide:

Reacts violently with acids, halogens, halogenated hydrocarbons, maleic anhydride, organic anhydrides, isocyanates, alkylene oxides, epichlorhydrin, aldehydes, alcohols, gylcols, phenols, cresols, caprolactum solution.

Also incompatible with nitro compounds (nitrobenzene, nitromethane, nitrogen trichloride), organic materials, acid anhydrides, acid chlorides, magnesium, peroxidized tetrahydrofuran, trichlorethylene, chlorine dioxide,

maleic dicarbide, sugars.

Solid potassium hydroxide in contact with moisture or water may generate sufficient heat to ignite combustible materials.

When wet attacks metals such as aluminum, tin, lead, and zinc.

Violent reaction or ignition under appropriate conditions with acids, alcohols, p-bis(1,3-dibromoethyl) benzene,

cyclopentadiene, germanium, hyponitrous acid, maleic anhydride, nitroalkanes, 2-nitrophenol, potassium peroxodisulfate, sugars, 2,2,3,3-tetrafluoropropanol, thorium dicarbide.

Molten ortho -nitrophenol reacts violently with potassium hydroxide. When potassium hydroxide and tetrachloroethane are heated, a spontaneously flammable gas, chloroacetylene, is formed.

When phosphorus is boiled in a solution of potassium hydroxide, phosphine gas is evolved which is spontaneously flammable.

1,2-Dichloroethylene and Potassium hydroxide reaction produces chloroacetylene which is spontaneously flammable in air.

Potassium Persulfate and a little Potassium hydroxide and water will ignite.

When wet, attacks metals such as aluminum, tin, lead, and zinc, producing flammable hydrogen gas.

When heated to decomposition it emits toxic fumes of K2O.

Potentially explosive reaction with bromoform + crown ethers, chlorine dioxide, nitrobenzene, nitromethane,

nitrogen trichloride, peroxidized tetrahydrofuran, 2,4,6-trinitrotoluene.

Reaction with ammonium hexachloroplatiate(2-) + heat forms heat sensitive explosive product.

Potassium hydroxide will cause explosive decomposition of maleic anhydride.

Detonation will occur when potassiuim hydroxide is mixed with n-methyl-nitroso urea and methylene chloride.

Nitrogen trichloride explodes on contact with potassium hydroxide.

WHEN HEATED, TRICHLOROETHYLENE & POTASSIUM HYDROXIDE FORM EXPLOSIVE MIXT OF

DICHLOROACETYLENE.

NITROGEN TRICHLORIDE EXPLODES ON CONTACT WITH CONCENTRATED POTASSIUM HYDROXIDE.

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

**Conditions to avoid:** Incompatible materials.

**Incompatible Materials:** Oxidizing agents. Acids. Metals. Powdered metals. Organic materials. Alcohols.

Halogens, halogenated hydrocarbons, Acid anhydrides, Acid chlorides, Nitro

compounds.

Hazardous decomposition products: No information available

Other Information

**Corrosivity:** Extremely corrosive in presence of aluminum, brass, and zinc.

Slightly corrosive in presence of copper, of stainless steel(304).

Non-corrosive in presence of stainless steel(316).

**Special Remarks on Corrosivity:** Severe corrosive effect on brass and bronze.

#### 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Principal Routes of Exposure:

Eyes. Ingestion. Inhalation. Skin.

**Acute Toxicity** 

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Component Information SDS #522

Water - 7732-18-5

LD50/oral/rat = > 90 mL/kg Oral LD50 Rat LD50/oral/mouse = No information available LD50/dermal/rat = No information available LD50/dermal/rabbit = No information available LC50/inhalation/rat = No information available LC50/inhalation/mouse = No information available

Other LD50 or LC50information = No information available

Potassium Hydroxide - 1310-58-3

LD50/oral/rat = 284 mg/kg Oral LD50 Rat (LOLI)

273 mg/kg (RTECS)

214-429 mg/kg (European Commission IUCLID dataset)

LD50/oral/mouse = No information available
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50information = No information available

#### **Product Information**

LD50/oral/rat =

**VALUE- Acute Tox Oral =** No information available

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

**VALUE-Acute Tox Dermal =** No information available

LD50/dermal/rat

**VALUE -Acute Tox Dermal =** No information available

LC50/inhalation/rat

VALUE-Vapor = No information available VALUE-Gas = No information available VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

**VALUE-Vapor** = No information available **VALUE - Gas** = No information available

VALUE - Dust/Mist = No information available

**Symptoms** 

**Skin Contact:** Contact causes severe skin irritation and possible burns.

**Eye Contact:** Causes severe eye irritation and possible burns. May cause irreversible eye damage.

**Inhalation** Inhalation of mist or vapor can cause severe irritation and burns of the respiratory

tract and mucous membranes, coughing, difficulty breathing. Irritation may lead to

chemical pneumonitis, and pulmonary edema.

Product code: P-377 Product name: POTASSIUM HYDROXIDE, 10 PERCENT (W/V)

Ingestion May cause severe and permanent damage to the digestive tract. Causes severe

irritation and burns of the gastrointestinal (digestive) tract with abdominal pain, vomiting, bloody diarrhea, cardiovascular collapse, and possible death. May cause

perforation of the digestive tract.

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity Prolonged or repeated skin contact with dilute solutions of potassium hydroxide can

cause dermatitis.

Prolonged or repeated eye contact with dilute solutions can cause conjunctivitis. Prolonged or repeated Inhalation can produce chronic productive cough, and

shortness of breath.

Sensitization: No information available

**Mutagenic Effects:** For Potassium Hydroxide:

Cytogenic analysis - Hamster ovary 12mmol/L (Registry of Toxic Effects of

Chemical Substances)

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH -	NTP	OSHA HCS -	Australia - Prohibited	Australia - Notifiable
		Carcinogens		Carcinogens	Carcinogenic	Carcinogenic
					Substances	Substances
Water	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
Potassium Hydroxide	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects:

Developmental Effects:
No information available
No information available
No information available

**Specific Target Organ Toxicity** 

**STOT - single exposure**STOT - repeated exposure
No information available
No information available

Target Organs: Eyes. Respiratory system. Skin.

#### 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Product code: P-377

**Ecotoxicity effects:** No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available

Mobility: No information available

Product name: POTASSIUM HYDROXIDE, 10 PERCENT (W/V)

SOLUTION

### 13. DISPOSAL CONSIDERATIONS

### **Disposal Methods**

### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

## Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Water	None	None	None	None
Potassium Hydroxide	None	None	None	None

## 14. TRANSPORT INFORMATION

DOT

**UN-No:** UN1814

**Proper Shipping Name:** Potassium hydroxide, solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group: None ERG No: 154

Marine Pollutant No data available DOT RQ (lbs): No information available

TDG (Canada)

**UN-No:** UN1814

**Proper Shipping Name:** Potassium hydroxide solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group:

**Description:** No information available

**ADR** 

**UN-No:** UN1814

Proper Shipping Name: Potassium hydroxide solution

Hazard Class: 8
Packing Group: ||

Subsidiary Risk:No information availableClassification Code:No information availableDescription:No information availableCEFIC Tremcard No:No information available

**IMO / IMDG** 

Product code: P-377

**UN-No:** UN1814

Proper Shipping Name: Potassium hydroxide solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group:

**Description:** No information available

### 14. TRANSPORT INFORMATION

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IMDG Page:No information availableMarine PollutantNo information available

EMS: F-A

MFAG: No information available Maximum Quantity: No information available

RID

**UN-No:** UN1814

Proper Shipping Name: Potassium hydroxide solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group:

Classification Code: No information available Description: No information available

**ICAO** 

**UN-No:** UN1814

**Proper Shipping Name:** Potassium hydroxide solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group:

**Description:** No information available

**IATA** 

**UN-No:** UN1814

**Proper Shipping Name:** Potassium hydroxide solution

Hazard Class: 8

Subsidiary Risk: No information available

Packing Group: II ERG Code: 8L

**Description:** No information available

### 15. REGULATORY INFORMATION

#### **International Inventories**

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Water	Present	Present KE- 35400	Present	Not present	Present	Present	Present 231-791-2
Potassium Hydroxide	Present	Present KE- 29139	Present	Present (1)- 369	Present	Present	Present 215-181-3

#### **U.S. Regulations**

Potassium Hydroxide

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: 1571

New Jersey - Discharge Prevention - List of Hazardous Substances: Present

Pennsylvania RTK: Environmental hazard

Pennsylvania RTK - Environmental Hazard List Present

Minnesota - Hazardous Substance List: Present

New York Release Reporting - List of Hazardous Substances:

1000 lb RQ 100 lb RQ

Louisana Reportable Quantity List for Pollutants: 1000lbfinal RQ

454kgfinal RQ

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Product name: POTASSIUM HYDROXIDE, 10 PERCENT (W/V) SOLUTION Potassium Hydroxide

California Directors List of Hazardous Substances: Present

FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1631

FDA - 21 CFR - Total Food Additives 163.110 163.111 163.112 172.841 175.210 176.180 176.210 177.1600 177.2800 184.1631 73.85

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen			Female Reproductive Toxicity:
Water	Not Listed	Not Listed	Not Listed	Not Listed
Potassium Hydroxide	Not Listed	Not Listed	Not Listed	Not Listed

#### **CERCLA/SARA**

	Substances and their	Hazardous	Section 302 Extremely Hazardous Substances and RQs	<b>Chemical Category</b>	Section 313 - Reporting de minimis
Water	None	None	None	None	None
Potassium Hydroxide	1000 lb final RQ	None	None	None	None
	454 kg final RQ				

#### **U.S. TSCA**

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Water	Not Applicable	Not Applicable
Potassium Hydroxide	Not Applicable	Not Applicable

#### Canada

#### WHMIS hazard class:

E Corrosive material

#### Water

Uncontrolled product according to WHMIS classification criteria

#### Potassium Hydroxide

D1B E

E 0.056% in aqueous solution, 0.11%, 0.56% in aqueous solution, 2.5%, 2.8%, 5.6% in aqueous solution, 25%, 28%, 33.3%, 40%, 50% in aqueous solution

### **Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Potassium Hydroxide	1 %

#### Inventory

Components	Canada (DSL)	Canada (NDSL)
Water	Present	Not Listed
Potassium Hydroxide	Present	Not Listed

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Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Manditory	
		Reporting	
Water	Not listed	Not listed	
Potassium Hydroxide	Not listed	Not listed	

#### **EU Classification**

## R-phrase(s)

R22 - Harmful if swallowed.

R34 - Causes burns.

# S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
Water		No information	
Potassium Hydroxide	Xn; R22 C; R35	No information	S1/2 S26 S36/37/39 S45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

# Indication of danger:

C - Corrosive.



## 16. OTHER INFORMATION

16. OTHER INFORMATION

**Preparation Date:** 10/19/2015 **Revision Date:** 10/19/2015 Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This

Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**