spectrum®



SAFETY DATA SHEET

Preparation Date: 4/11/2017

Revision Date: 4/11/2017

Revision Number: G1

1. IDENTIFICATION

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Product code: Product Name: P1326 PROPIONIC ACID, FCC

Acide propionique (French)

Ethanecarboxylic acid Ethylformic acid Metacetonic acid Methyl acetic acid Propanoic acid 79-09-4

UE5950000 Not available

Other means of identification Synonyms:

CAS #:
RTECS #
CI#:

Recommended use of the chemical and restrictions on useRecommended use:Chemical intermediate.Uses advised againstNo information available

Supplier:Spectrum Chemical Mfg. Corp14422 South San Pedro St.Gardena, CA 90248(310) 516-8000.Order Online At:Emergency telephone numberContact Person:Contact Person:Contact Person:Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

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

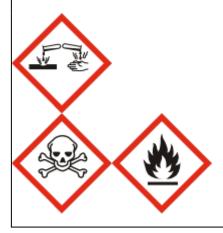
Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Dermal	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Flammable liquids	Category 3

Label elements

Danger

Hazard statements Toxic in contact with skin Causes severe skin burns and eye damage Flammable liquid and vapor



Hazards not otherwise classified (HNOC) Not Applicable

Other hazards

May be harmful if swallowed

Precautionary Statements - Prevention

Wear protective gloves/protective clothing/eye protection/face protection Do not breathe dust/fume/gas/mist/vapors/spray Wash face, hands and any exposed skin thoroughly after handling Keep away from heat/sparks/open flames/hot surfaces. — No smoking Keep container tightly closed Ground/bond container and receiving equipment Use explosion-proof electrical/ventilating/lighting/.../equipment Use only non-sparking tools Take precautionary measures against static discharge

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician In case of fire: Use CO2, dry chemical, or foam to extinguish. 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. Call a POISON CENTER or doctor/physician if you feel unwell Wash contaminated clothing before reuse IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower IF INHALED: Remove person to fresh air and keep 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 a well-ventilated place. Keep cool

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Propionic Acid	79-09-4	100

4. FIRST AID MEASURES

First aid measures

General Advice:	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. 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. Remove all contaminated clothes and shoes. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.				
Eye Contact:	Flush eyes with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.				
Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. 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.				
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. 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. May cause corneal injury. May cause abdominal pain, nausea, vomiting, diarrhea. May cause gastrointestinal (digestive) tract burns. Can burn mouth, throat, and stomach. May cause edema and swelling of the throat. Irritating to respiratory system. May cause chemical burns to the respiratory tract. May cause bronchitis. Dyspnea (Shortness of breath and difficulty breathing). Coughing and wheezing. May cause central nervous system effects.				
Indication of any immediate medica	al 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:	Carbon dioxide (CO2). Dry chemical. Alcohol-resistant foam. Water spray.				

Unsuitable Extinguishing Media:

Do not use a solid (straight) water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Hazardous Combustion Products:

Specific hazards:

Carbon Dioxide, Carbon Monoxide.

Flammable. May be ignited by heat, sparks or flames. Container explosion may occur under fire conditions or when heated. Vapor may travel considerable distance to

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source of ignition and flash back. Vapors may form explosive mixtures with air. Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks). Reacts with metals to produces flammable hydrogen gas. It will ignite on contact with potassium-tert-butoxide.A mixture of ammonium nitrate and acetic acid ignites when warmed, especially if warmed. (Acetic acid, glacial)Acetic acid vapors may form explosive mixtures with air.Reactions between acetic acid and the following materials are potentially explosive: 5-azidotetrazole, bromine pentafluoride, chromium trioxide, hydrogen peroxide, potassium permanganate, sodium peroxide, and phorphorus trichloride. Reaction between chlorine trifluoride and acetic acid is very violent, sometimes explosive. (Acetic acid, glacial).

Special Protective Actions for Firefighters

Specific Methods:

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.
Methods and material for contain	inment and cleaning up
Methods for containment	Stop leak if you can do it without risk. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.
Methods for cleaning up	Absorb spill with inert material (e.g. vermiculite, dry sand or earth). Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Neutralize the residue with a dilute solution of sodium carbonate. 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. Remove all sources of ignition. To avoid ignition of

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vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. 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 in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials: Bases Oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WHEEL
Propionic Acid	79-09-4	None	10 ppm TWA 30 mg/m ³ TWA 15 ppm STEL 45 mg/m ³ STEL	10 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Propionic Acid	79-09-4	10 ppm TWA 30 mg/m³ TWA	10 ppm TWA	10 ppm TWA	10 ppm TWAEV 30 mg/m ³ TWAEV

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Propionic Acid	79-09-4	10 ppm TWA	None
		30 mg/m ³ TWA	

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

Eye protection: Goggles or Face-shield

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Skin and body protection:	Gloves Boots Chemical resistant apron Long sleeved clothing If working with large quantities: Chemical resistant protective suit
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

Physical state: Liquid

Appearance: Oily. Clear.

Odor: Slightly. Pungent. Disagreeable. Rancid.

Molecular/Formula weight: No information available

Flash Point Tested according to: Closed cup

Upper Explosion Limit (%): 12-17%

Boiling point/range(°C/°F): 141 °C /285.8 °F

Specific gravity: 0.993-0.998

Evaporation rate: No information available

Odor threshold (ppm): 0.16

Miscibility: Miscible with water

Taste Sour and mildly cheese-like.

Flammability: No information available

Autoignition Temperature (°C/°F): 465-513 °C/869-955.4 °F

Melting point/range(°C/°F): -21 °C/-5.8 °F

Bulk density: No information available

pH: No information available

Vapor density: 2.56

Partition coefficient (n-octanol/water): $\log Kow = 0.33$

Solubility: Soluble in Alcohol Soluble in Ether Soluble in Chloroform

Color: Colorless.

Formula: No information available

Flashpoint (°C/°F): 51-54 °C/123.8129.2 °F

Lower Explosion Limit (%): 2.6-2.9%

Decomposition temperature(°C/°F): No information available

Density (g/cm3): No information available

Vapor pressure @ 20°C (kPa): 0.3

VOC content (g/L): No information available

Viscositv: No information available

Reactivity No information available

Chemical stability

Stability:

Stable under recommended storage conditions.

10. STABILITY AND REACTIVITY

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

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Conditions to avoid: Heat. Ignition sources. Incompatible materials.

Incompatible Materials:

Bases Oxidizing agents

Carbon oxides.

Hazardous decomposition products:

Other Information Corrosivity:

No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure: Skin. Ingestion. Inhalation.

Acute Toxicity

Component Information

Propionic Acid CAS-No.

 S-No.
 [79-09-4

 LD50/oral/rat = 2600 mg/kg (RTECTS); 835-5160 European Chemical Bureau IUCLID dataset); 351 mg/kg Oral LD50 Rat (LOLI)

 LD50/oral/mouse = 2350-5100 (European Chemical Bureau IUCLID dataset)

 LD50/dermal/rabbit = 496 mg/kg Dermal LD50 Rabbit (LOLI; 500 mg/kg RTECS)

 LD50/dermal/rat = No information available

 LC50/inhalation/rat = 4650 ppm Inhalation LC50 8 hr. Rat (LOLI); >4.9 mg/l 4 hr.(RTECS)

 LC50/inhalation/mouse = No information available

 Other LD50 or LC50information = No information available

Product Information

LD50/oral/rat = VALUE- Acute Tox Oral = 2600 mg/kg

LD50/oral/mouse = Value - Acute Tox Oral = No information available

LD50/dermal/rabbit VALUE-Acute Tox Dermal = 500 mg/kg

LD50/dermal/rat VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat VALUE-Vapor = >4.9 mg/l (4-hr) VALUE-Gas = No information available VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse VALUE-Vapor = No information available

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Product name: PROPIONIC ACID,

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

Symptoms	
Skin Contact:	Causes severe irritation and burns. Toxic in contact with skin.
Eye Contact:	Causes severe irritation and burns. May cause corneal injury. Possible eye damage.
Inhalation	Causes irritation and possible burns of the respiratory tract with burning pain in the nose and throat, coughing, sneezing, wheezing, shortness of breath and pulmonary edema. May cause nausea, vomiting. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May cause central nervous system effects, central nervous system depression.
Ingestion	May cause abdominal pain, nausea, vomiting, diarrhea. May cause digestive (gastrointestinal) tract burns. May cause permanent damage to the digestive tract. May affect behavior/central nervous system (somnolence), respiration (shortness of breath). It may affect behavior/central nervous system (convulsions, excitement). May cause edema and swelling of the throat.
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 inhalation may cause bronchitis with coughing, phlegm, and/or shortness of breath. Prolonged or repeated inhalation may cause asthma-like allergy and asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness.
Sensitization:	No information available.
Mutagenic Effects:	No information available

Carcinogenic effects: Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Propionic Acid	79-09-4	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed
	6.0			1			

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity	No data is available
Reproductive Effects: Developmental Effects: Teratogenic Effects:	No information available No information available No information available
Specific Target Organ Toxicity	

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

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:	Aquatic environment.
Propionic Acid - 79-09-4 Freshwater Algae Data: Freshwater Fish Species Data:	45.8 mg/L EC50 Desmodesmus subspicatus 72 h 43 mg/L EC50 Desmodesmus subspicatus 96 h 1 mg/L LC50 Pimephales promelas 96 h static 1 73 - 99.7 mg/L LC50 Lepomis macrochirus 96 h static 1 51 mg/L LC50 Oncorhynchus mykiss 96 h static 1
Persistence and degradability:	No information available
Bioaccumulative potential:	No information available.
Mobility:	No information available.

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	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Propionic Acid	79-09-4	None	None	None	None

14. TRANSPORT INFORMATION

DOT	
UN-No:	UN3463
Proper Shipping Name:	Propionic acid
Hazard Class:	8
Subsidiary Class	3
Packing group:	II
Emergency Response Guide	132
Number	
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	IB2, T7, TP2
Symbol(s):	No information available
Description:	UN3463, Propionic acid, 8 (3), II
TDG (Canada)	
UN-No:	UN3463
Proper Shipping Name:	Propionic acid
Hazard Class:	8
Subsidiary Risk:	No information available
Packing Group:	II
Product code: P1326	Product name: PROPIONIC

Product code: P1326

Marine Pollutant Description:	No Information available UN3463, Propionic acid, 8 (3), II
ADR UN-No: Proper Shipping Name: Hazard Class: Packing Group: Subsidiary Risk: Description:	UN3463 Propionic acid 8 II No information available UN3463, Propionic acid, 8 (3), II
IMO / IMDG UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Marine Pollutant EMS: Description	UN3463 Propionic acid 8 No information available II No information available F-E UN3463, Propionic acid, 8 (3), II
RID UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Description:	UN3463 Propionic acid 8 No information available II UN3463, Propionic acid, 8 (3), II
ICAO UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Description:	UN3463 Propionic acid 8 No information available II UN3463, Propionic acid, 8 (3), II
IATA UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: ERG Code: Special Provisions Description:	UN3463 Propionic acid 8 No information available II 8F No information available UN3463, Propionic acid, 8 (3), II

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Propionic Acid	79-09-4	Present	Present KE-29352	Present	Present (2)-602	Present	Present	Present 201-176-3

U.S. Regulations

Propionic Acid

Massachusetts RTK: Present New Jersey RTK Hazardous Substance List: 1599 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: 5000 lb RQ 100 lb RQ Louisana Reportable Quantity List for Pollutants: 5000lbfinal RQ 2270kgfinal RQ California Directors List of Hazardous Substances: Present FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1081 FDA - 21 CFR - Total Food Additives 178.1010, 184.1081

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	CAS-No.	Carcinogen	Developmental Toxicity		Female Reproductive
				Toxicity	Toxicity:
Propionic Acid	79-09-4	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Propionic Acid	79-09-4	5000 lb final RQ 2270 kg final RQ	None	None	None	None

U.S. TSCA

Components		TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Propionic Acid	79-09-4	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component Propionic Acid 79-09-4 (100) WHMIS 2015 Hazard Classification Flammable liquids - Category 3: H226 Flammable liquid and vapour.; Acute toxicity - Dermal - Category 3: H311 Toxic in contact with skin.; Health Hazard Not Otherwise Classified -Category 1: Causes severe damage to the respiratory tract; Skin corrosion/irritation - Category 1: H314 Causes severe skin burns and eye damage.; Serious Eye Damage/Eye Irritation - Category 1: H318 Causes serious eye damage.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

Product code: P1326

Product name: PROPIONIC ACID, FCC

Components Propionic Acid

WHMIS 1988 B3,D1B,E

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 -
Propionic Acid	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Propionic Acid	79-09-4	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances	
Propionic Acid	79-09-4	Not listed	
Components		CEPA - 2010 Greenhouse Gases Subject	
		to Mandatory Reporting	
Propionic Acid	79-09-4	Not listed	

EU Classification

EU GHS - SV - CLP 172/2008

Components	CAS-No.	EU GHS - SV - CLP (172/2008)
Propionic Acid	79-09-4	Skin corrosion/irritation - Skin Corr.
		1B: H314 Causes severe skin burns
		and eye damage. ($C \ge 25$
		%)607-089-00-0
		Skin corrosion/irritation - Skin Corr.
		1B: H314 Causes severe skin burns
		and eye damage. (C >= 25 %); Skin
		corrosion/irritation - Skin Irrit. 2: H315
		Causes skin irritation. (10 % <= C <25
		%); Serious Eye Damage/Eye Irritation
		 Eye Irrit. 2: H319 Causes serious eye
		irritation. (10 % <= C <25 %); Specific
		target organ toxicity - Single exposure
		- STOT SE 3: H335 May cause
		respiratory irritation. ($C \ge 10$
		%)607-089-00-0

EU - CLP (1272/2008)

R-phrase(s)

R34 - Causes burns.

S -phrase(s)

S23 - Do not breathe gas/fumes/vapor/spray.

S36 - Wear suitable protective clothing.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 1/2 - Keep locked up and out of the reach of children.

Components	CAS-No.		Concentration Limits:	Safety Phrases
Propionic Acid	79-09-4	C; R34	10%<=C<25% Xi;	S:(1/2)-23-36-45

	R36/37/38 25%<=C C; R34	

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

Indication of danger:

C - Corrosive.



16. OTHER INFORMATION

Preparation Date:	4/11/2017
Revision Date:	4/11/2017
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