

SAFETY DATA SHEET

Preparation Date: 6/22/2016

Revision Date: 6/22/2016

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: G3060
Product Name: GLUTARIC DIALDEHYDE, 50 PERCENT IN WATER

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: No information available.
Uses advised against Not for use as a biocide

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 number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
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 - Oral	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 3
Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Corrosive to metals	Category 1

Label elements

Danger

Hazard statements

Toxic if swallowed
Toxic if inhaled
Causes severe skin burns and eye damage
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction
May be corrosive to metals



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Toxic to aquatic life with long lasting effects
Toxic to aquatic life

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Wear respiratory protection
Contaminated work clothing must not be allowed out of the workplace
Keep only in original container

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor/physician
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 skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Do NOT induce vomiting

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Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 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
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Components	CAS-No.	Weight %
Glutaraldehyde 111-30-8	111-30-8	50
Water 7732-18-5	7732-18-5	50

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. First aider needs to protect himself. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

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 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. Get medical attention.

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 sensitization by inhalation and skin contact. May affect the liver. It may affect the kidneys. May cause abdominal pain, nausea, vomiting, diarrhea. May cause coughing and shortness of breath. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. Can burn mouth, throat, and stomach. May cause central nervous system effects. May cause cardiovascular effects.

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

Specific Methods:

No information available.

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. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Wear personal protective equipment.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. Prevent product from entering drains. Do not let this chemical enter the environment.

Methods and material for containment 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

Dilute with water. 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. 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. Use only in well-ventilated areas. Do not breathe vapors or spray mist. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep refrigerated. Keep at temperatures between 2 and 8 °C. Store away from incompatible materials. Store in a segregated and approved area. May corrode metallic surfaces. Do not store in uncoated metallic containers. Do not store in Aluminum, Carbon steel, Copper, Mild steel or Iron containers.

Incompatible Materials:

Bases. Oxidizing agents. Strong acids. Amines. Alcohols. Ammonia. Ketones.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**National occupational exposure limits****United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Glutaraldehyde 111-30-8	None	= 0.8 mg/m ³ Ceiling = 0.2 ppm Ceiling	= 0.05 ppm Ceiling	None
Water 7732-18-5	None	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Glutaraldehyde 111-30-8	= 0.05 ppm Ceiling = 0.2 mg/m ³ Ceiling	= 0.05 ppm Ceiling	0.05 ppm Ceiling activated and inactivated	0.1 ppm Ceiling 0.41 mg/m ³ Ceiling
Water 7732-18-5	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
Glutaraldehyde 111-30-8	None	= 0.2 ppm Peak = 0.7 mg/m ³ Peak
Water 7732-18-5	None	None

Appropriate engineering controls**Engineering measures to reduce exposure:**

Ensure adequate ventilation, especially in confined areas. 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
- Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.
- Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid	Appearance: Clear.	Color: Colorless.
Odor: No information available	Taste No information available	Formula: No information available
Molecular/Formula weight: No information available	Flammability: Not flammable	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): No information available	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 100.7-101 °C/213.3-213.8 °F	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 1.129	pH: No information available	Vapor pressure @ 20°C (kPa): 2
Evaporation rate: No information available	Vapor density: 1.05-1.1	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Completely soluble in water	

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Incompatible materials.

Incompatible Materials: Bases. Oxidizing agents. Strong acids. Amines. Alcohols. Ammonia. Ketones.

Hazardous decomposition products: Carbon oxides.

Other Information

Corrosivity: Avoid contact with metals such as Aluminum, Carbon steel, Copper, Iron, or Mild steel

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product code: G3060

Product name: GLUTARIC
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Principal Routes of Exposure:
Ingestion. Inhalation. Eyes. Skin.

Acute Toxicity

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

ATEmix (oral) 280mg/kg
ATEmix (inhalation-dust/mist) 0.96mg/l

Component Information

Glutaraldehyde - 111-30-8

LD50/oral/rat = 252 mg/kg Oral LD50 Rat (LOLI)
140 mg/kg (RTECS)
LD50/oral/mouse = No information available
LD50/dermal/rabbit = 560 µL/kg Dermal LD50Rabbit
LD50/dermal/rat = >2500 mg/kg
LC50/inhalation/rat = 0.1 mg/L Inhalation LC50 Rat 4 h (LOLI)
0.480 mg/l 4 h (RTECS)
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Water - 7732-18-5

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

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Skin Contact: Corrosive. Causes severe irritation and burns. May cause staining of the skin and nails to a brown or golden brown color. It may be absorbed through the skin.

Eye Contact: Causes severe irritation and burns.

Inhalation Toxic by inhalation. Irritating to respiratory system. May cause headache, nausea, vomiting. Symptoms may include coughing and shortness of breath. Symptoms may include coughing, chest pain, difficulty breathing. It may affect the cardiovascular system (rapid heart beat (tachycardia), palpitations).

Ingestion Toxic if swallowed. Causes digestive (gastrointestinal) tract irritation. May cause digestive (gastrointestinal) tract burns. Corrosive to the mouth, throat, and stomach. It causes irritation or a burning sensation of the mouth and throat . May cause a burning sensation in the mouth, chest, and stomach. May cause abdominal pain, nausea, vomiting, diarrhea. It may affect the kidneys and liver. May affect behavior/central nervous system (somnolence, ataxia). May affect behavior/central nervous system (dizziness, drowsiness). May cause headache. It may cause twitching or tremors. May affect behavior/central nervous system (convulsions, seizures). May affect behavior/central nervous system (excitement).

Aspiration hazard No information available

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

Chronic Toxicity Skin: Sensitizer. May cause allergic skin reaction (allergic contact dermatitis). Prolonged or repeated inhalation may cause allergic reaction. Prolonged or repeated inhalation may cause asthma-like allergy and asthma attacks with shortness of breath, wheezing, coughing, and/or chest tightness. Prolonged or repeated ingestion may affect the liver, and kidneys. Prolonged or repeated ingestion may affect the blood (normocytic anemia).

Sensitization: May cause sensitization by inhalation and skin contact

Mutagenic Effects: For Glutaraldehyde:
Mutations in microorganisms
Experiments with bacteria and/or yeast have shown mutagenic effects
Mutagenic effects in mammalian somatic cells
Sister Chromatid Exchange: Hamster ovary (RTECS)

Carcinogenic effects: Not considered carcinogenic

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Glutaraldehyde	Not listed	A4 Not Classifiable as a Human Carcinogen	Not listed	Not listed	Not listed	Not listed
Water	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data
There are no adequate and well-controlled studies in humans. Data in humans were insufficient to evaluate the effects on reproduction

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

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Glutaraldehyde - 111-30-8

Freshwater Algae Data: 0.61 mg/L EC50 *Desmodesmus subspicatus* 72 h
0.84 mg/L EC50 *Desmodesmus subspicatus* 96 h
Freshwater Fish Species Data: 5.4 mg/L LC50 *Pimephales promelas* 96 h static 1
7.8-22 mg/L LC50 *Lepomis macrochirus* 96 h static 1
2.6-4.8 mg/L LC50 *Oncorhynchus mykiss* 96 h flow-through 1
7.8-13 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1
Water Flea Data: 0.56 - 1.0 mg/L EC50 *Daphnia magna* 48 h
14 mg/L EC50 *Daphnia magna* 48 h

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. Do not re-use empty containers Dispose of as unused product.

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Glutaraldehyde	None	None	None	None
Water	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN2922
Proper Shipping Name: Corrosive liquids, toxic, n.o.s. (glutaraldehyde solution)

Product code: G3060

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14. TRANSPORT INFORMATION

Hazard Class: 8
Subsidiary Risk: 6.1
Packing Group: II
ERG No: 154
Marine Pollutant: Marine Pollutant
DOT RQ (lbs): No information available
Special Provisions: No Information available
Symbol(s): G

TDG (Canada)

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Subsidiary Risk: (6.1)
Packing Group: II
Marine Pollutant: Marine Pollutant

ADR

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Packing Group: II
Subsidiary Risk: 6.1

IMO / IMDG

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Subsidiary Risk: 6.1
Packing Group: II
Marine Pollutant: Marine Pollutant
EMS: F-A

RID

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Subsidiary Risk: 6.1
Packing Group: II

ICAO

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Subsidiary Risk: 6.1
Packing Group: II

IATA

UN-No: UN2922
Proper Shipping Name: Corrosive liquid, toxic, n.o.s.(glutaraldehyde solution)
Hazard Class: 8
Subsidiary Risk: 6.1
Packing Group: II
ERG Code: 8P
Special Provisions: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Glutaraldehyde	Present	Present KE-27969	Present	Present (2)-509	Present	Present	Present 203-856-5
Water	Present	Present KE-35400	Present	Not present	Present	Present	Present 231-791-2

U.S. Regulations

Glutaraldehyde

Massachusetts RTK: Present

New Jersey RTK Hazardous Substance List: 0960

Pennsylvania RTK: Present

Minnesota - Hazardous Substance List: Present

California Directors List of Hazardous Substances: Present

FDA - Direct Food Additives 21 CFR 172.230 21 CFR 173.320 21 CFR 173.357

FDA - 21 CFR - Total Food Additives 172.230 173.320 173.357 175.105 176.170 176.180 176.300

Water

New Jersey RTK Hazardous Substance List: Present (listed under fluorides)

Minnesota - Hazardous Substance List: Present (listed under fluorides)

California Directors List of Hazardous Substances: Present (listed under fluorides)

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	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Glutaraldehyde	Not Listed	Not Listed	Not Listed	Not Listed
Water	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	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
Glutaraldehyde	None	None	None	None	None
Water	None	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
Glutaraldehyde	Not Applicable	09/30/199106/30/1998
Water	Not Applicable	Not Applicable

Canada

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WHMIS hazard class:

E Corrosive material
 D1B Toxic materials
 D2B Toxic materials

Glutaraldehyde

D1B D2B E

Water

Uncontrolled product according to WHMIS classification criteria

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 -
Glutaraldehyde	1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Glutaraldehyde	Present	Not Listed
Water	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances
Glutaraldehyde	Not listed
Water	Not listed

Components	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Glutaraldehyde	Not listed
Water	Not listed

EU Classification**R-phrase(s)**

R34 - Causes burns.
 R50 - Very toxic to aquatic organisms.
 R42/43 - May cause sensitization by inhalation and skin contact.
 R23/25 - Toxic by inhalation and if swallowed.

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).
 S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.
 S 1/2 - Keep locked up and out of the reach of children.
 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

Components	Classification	Concentration Limits:	Safety Phrases
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Glutaraldehyde	C;R34 N;R50 R42/43 T;R23/25	0.5%≤C<1% Xi;R36/37/38-43 1%≤C<2% Xn;R36/37/38-42/43 10%≤C<25% C;R20/22-34-42/43 2%≤C<10% Xn;R20/22-37/38-41-42/43 25%≤C<50% T;R22-23-34-42/43 50%≤C T;R23/25-34-42/43	S(1/2)-S26-S36/37/39-S45-S61
Water		No information	

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

Indication of danger:

C - Corrosive.

T - Toxic

Xi - Irritant.

N - Dangerous for the environment.



16. OTHER INFORMATION

16. OTHER INFORMATION

Preparation Date: 6/22/2016
Revision Date: 6/22/2016
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