SAFETY DATA SHEET

Preparation Date: 9/27/2013 **Revision Date:** 11/11/2015 **Revision Number:** G5

1. IDENTIFICATION

Product identifier

Product code: E1424
Product Name: DEHYDRATED ALCOHOL, 200 PROOF, BIOTECHGRADE

Other means of identification

Synonyms: Absolute ethanol
Alcohol
Alcohol dehydrated
Alcohol, anhydrous
Alcool ethylique (French)
Absolute Ethanol 200 proof
Ethanol
Ethyl alcohol anhydrous
Ethyl hydrate
Ethyl hydroxide
Fermentation alcohol
Dehydrated Alcohol
Ethanol, undenatured 200 proof
Ethanol 200 proof
CAS #: 64-17-5
RTECS # KQ6300000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Solvent. Perfuming agent. In pharmaceuticals. Inks. In organic synthesis. In beverages.
Uses advised against 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 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 by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Reproductive toxicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Flammable liquids	Category 2

Label elements

Danger

Hazard statements
Causes serious eye irritation
May damage fertility or the unborn child
May cause respiratory irritation. May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
Highly flammable liquid and vapor

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Can burn with an invisible flame
Causes mild skin irritation

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
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
Keep cool

Precautionary Statements - Response
IF exposed or concerned: Get medical advice/attention
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. If eye irritation persists: Get medical advice/attention.

If skin irritation occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Ethyl Alcohol 200 proof 64-17-5	64-17-5	100	*

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)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

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

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms Causes eye irritation. May cause skin irritation. May cause irritation of respiratory tract. Dyspnea (Difficulty breathing and shortness of breath). Central nervous system effects. Dizziness. Drowsiness. Headache. Ataxia. Staggering gait. Nausea. Vomiting. 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: 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: Carbon monoxide; Carbon dioxide

Specific hazards:

Flammable
May be ignited by heat, sparks or flames
Material can burn with invisible flame
Vapor may travel considerable distance to 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)
Container explosion may occur under fire conditions or when heated
Fire may produce irritating, corrosive and/or toxic gases

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.

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. 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. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. 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 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. Sensitive to light. Store in light-resistant containers. Keep away from heat and sources of ignition. Store in a segrated and approved area. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents. Acids. Alkali Metals. Halogens. Caustics. isocyanates. Metals. Bases. Acid anhydrides. Acid chlorides.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Ethyl Alcohol 200 proof 64-17-5	1000 ppm TWA 1900 mg/m^3 TWA	1000 ppm TWA 1900 mg/m^3 TWA	1000 ppm STEL	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Ethyl Alcohol 200 proof 64-17-5	1000 ppm TWA 1880 mg/m^3 TWA	1000 ppm STEL	1000 ppm STEL	1000 ppm TWAEV 1880 mg/m^3 TWAEV

Australia and Mexico

Components	Australia	Mexico
Ethyl Alcohol 200 proof 64-17-5	1000 ppm TWA 1880 mg/m^3 TWA	1000 ppm TWA 1900 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. Safety glasses with side-shields.

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 before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid.

Appearance:
No information available

Color:
Clear. Colorless.

Odor:
Mild. Pleasant. Alcoholic. Like wine or whiskey. Ethereal.

Taste
Pungent. Burning.

Molecular/Formula weight:
46.07

Formula:
CH3CH2OH

Flammability:
No information available

Flash point (°C):
12

Flashpoint (°C/°F):
12-14 °C/53.6-57.2 °F
15.8-18 °C/60.44-64.4 °F

Flash Point Tested according to:
Closed cup
Open cup

Autoignition Temperature (°C/°F):
363-426 °C/685.4-798.8 °F

Lower Explosion Limit (%):
3.3%

Upper Explosion Limit (%):
19%

pH:
No information available

Melting point/range(°C/°F):
-114.1-117.3 °C/-173.38-179.14 °F

Boiling point/range(°C/°F):
78-79 °C/172.4-174.2 °F

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

Bulk density:
No information available

Density (g/cm3):
No information available

Specific gravity:
0.789 @ 20 °C

Vapor pressure @ 20°C (kPa):
5.7

Evaporation rate:
No information available

Vapor density:
1.59

VOC content (g/L):
789

Odor threshold (ppm):
5-10 (recognition)
84 (tolerance)

Partition coefficient (n-octanol/water):
-0.31

Viscosity:
No information available

Miscibility:
Miscible with water
Miscible with Acetone
Miscible with Ether
Miscible with Benzene
Miscible with glacial Acetic Acid
Miscible with many organic solvents

Solubility:
Very soluble in water

10. STABILITY AND REACTIVITY

Reactivity

It can react vigorously, violently or explosively with oxidizers
When Ethanol comes in contact with Platinum or Sodium, it liberates flammable hydrogen gas
It can react vigorously or explosively with acid hydrides or acid chlorides
It reacts with alkali metals to liberate flammable hydrogen gas
It reacts with acetyl bromide to evolve hydrogen bromide
It reacts with ammonia + silver nitrate to form silver nitride and silver fulminate
Ethyl alcohol can react with freshly cut/etched/scratched aluminum with the evolution of heat and release of hydrogen gas. The Ethyl alcohol has to be on the aluminum surface as it is being cut/scratched/etched
Ethyl Alcohol reacts vigorously with acetyl chloride.
Ethyl alcohol reacts with silver (I) oxide + ammonia or hydrazine to form silver nitride and silver fulminate
Ethanol ignites and then explodes on contact with the following compounds: acetic anhydride + sodium hydrosulfate, disulfuric acid + nitric, phosphorus (III) oxide, potassium tert-butoxide + acids

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

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

Incompatible Materials: Oxidizing agents. Acids. Alkali Metals. Halogens. Caustics. isocyanates. Metals. Bases. Acid anhydrides. Acid chlorides.

Hazardous decomposition products: Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

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:
Ingestion. Skin. Eyes. Inhalation.

Acute Toxicity

Component Information

Ethyl Alcohol 200 proof - 64-17-5

LD50/oral/rat = 7060 mg/kg Oral LD50 Rat
LD50/oral/mouse = 3450 mg/kg Oral LD50 Mouse
LD50/dermal/rat = No information available
LD50/dermal/rabbit = No information available
LC50/inhalation/rat = 124.7 mg/L Inhalation LC50 Rat 4 h
LC50/inhalation/mouse = 39000 mg/m^{3}4 h
Other LD50 or LC50information = >60000 ppm Inhalation LC50 Mouse 1 h
5900 mg/m^{3}Inhalation LC50 Rat 6 h
20000 ppm Inhalation LC50 Rat 10 h
5560 mg/kg Oral LD50 Guinea Pig
6300 mg/kg Oral LD50 Rabbit

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 7060mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 3450mg/kg

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 = 124.7mg/l (4-hr)
VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse
VALUE-Vapor = 39 mg/l (4-hr)
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Mildly to moderately irritating to the skin.

Eye Contact: Causes serious eye irritation. Causes moderate to severe eye irritation.

Inhalation May cause irritation of respiratory tract. Symptoms may include coughing and shortness of breath. May cause nausea and headache. It may affect behavior/central nervous system (ataxia, general anesthetic, drowsiness). May affect respiration (respiratory depression). Inhalation of high concentrations of vapor may cause anesthetic effects. Inhalation of high concentrations of vapors may cause dizziness or suffocation. May affect the brain.

Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause gastritis. May cause loss of appetite. May cause flushed skin. May affect the cardiovascular system (change in heart rate). May affect the cardiovascular system (hypotension or hypertension, tachycardia, dysrhythmias). It may affect behavior/central nervous system (excitation, mild euphoria, excessive talking, fatigue, headache, dizziness, drowsiness, staggaring gait, ataxia, hallucinations, slurred speech, amnesia, confusion, release of inhibitions, agressive behavior, convulsions, coma). May affect respiration (dyspnea, respiratory depression). It may affect the brain. May affect liver . May affect the blood. May affect the endocrine system. It may affect the spleen. May affect urinary system (kidneys).

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 may cause dermatitis, and dryness and cracking of the skin.. Prolonged or repeated ingestion may affect behavior/central nervous system. Prolonged or repeated ingestion may affect metabolism (cause anorexia, weight loss). Prolonged or repeated ingestion may affect the liver (fatty liver degeneration, cirrhosis of the liver. Prolonged or repeated ingestion may affect the cardiovascular system. Prolonged or repeated inhalation may affect the liver.

Sensitization: No information available

Mutagenic Effects: May affect genetic material
Experiments with bacteria and/or yeast have shown mutagenic effects

Carcinogenic effects: Equivocal tumorigenic agent by Registery of Toxic Effects of Chemical Substances (RTECS) criteria. Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances

Ethyl Alcohol 200 proof	Group 1 - Monograph 100E [2012] in alcoholic beverages Monograph 96 [2010] in alcoholic beverages	A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans	Not listed	Present	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
(In alcoholic beverages)

Reproductive toxicity May damage fertility or the unborn child

Reproductive Effects: Causes adverse reproductive effects
Developmental Effects: May cause harm to the unborn child
May cause adverse developmental effects
Teratogenic Effects: Causes birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposure Respiratory system. central nervous system.
STOT - repeated exposure liver. central nervous system. Skin. Reproductive System.
Target Organs: Skin. Liver. Central nervous system. Nervous system. Heart.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Aquatic environment.

Ethyl Alcohol 200 proof - 64-17-5
Freshwater Fish Species Data: 12.0 - 16.0 mL/L LC50 Oncorhynchus mykiss 96 h static 1
13400 - 15100 mg/L LC50 Pimephales promelas 96 h flow-through 1
100 mg/L LC50 Pimephales promelas 96 h static 1
Water Flea Data: 9268 - 14221 mg/L LC50 Daphnia magna 48 h
10800 mg/L EC50 Daphnia magna 24 h
2 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

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethyl Alcohol 200 proof	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1170
Proper Shipping Name: Ethanol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG No: 127
Marine Pollutant No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: UN1170
Proper Shipping Name: Ethanol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

ADR

UN-No: UN1170
Proper Shipping Name: Ethanol (Ethyl alcohol)
Hazard Class: 3
Packing Group: II
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: UN1170
Proper Shipping Name: Ethanol (Ethyl alcohol)
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available
IMDG Page: No information available
Marine Pollutant No information available
EMS: F-E
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: UN1170
Proper Shipping Name: Ethanol (Ethyl alcohol)
Hazard Class: 3
Subsidiary Risk: 3

14. TRANSPORT INFORMATION

Packing Group: II
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1170
Proper Shipping Name: Ethanol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA

UN-No: UN1170
Proper Shipping Name: Ethanol
Hazard Class: 3
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 3L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Ethyl Alcohol 200 proof	Present	KE-13217	Present	(2)-202	Present	Present	Present 200-578-6

U.S. Regulations

Ethyl Alcohol 200 proof

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0844
Pennsylvania RTK: Present
Minnesota - Hazardous Substance List: Present
Louisana Reportable Quantity List for Pollutants: Present (listed as Volatile Organic Compounds)
California Directors List of Hazardous Substances: Present
FDA - Food Additives Generally Recognized as Safe (GRAS): 21 CFR 184.1293
FDA - 21 CFR - Total Food Additives 169.175 169.176 169.177 169.181 172.340 172.560 172.580 175.105 176.180 176.200 177.1200 177.1650 178.1010 184.1293 73.30 73.345 73.615

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

Chemicals Known to the State of California to Cause Cancer:
WARNING: This product contains a chemical known to the State of California to cause cancer. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Ethyl Alcohol 200 proof	carcinogen (listed as Ethanol in alcoholic beverages)	developmental toxicity (Ethyl alcohol in alcoholic beverages)	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*
Ethyl Alcohol 200 proof	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
Ethyl Alcohol 200 proof	Not Applicable	Not Applicable

Canada

WHMIS hazard class:
B2 Flammable liquid
D2B Toxic materials

Ethyl Alcohol 200 proof
B2 D2B

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 -
Ethyl Alcohol 200 proof	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Ethyl Alcohol 200 proof	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Manditory Reporting
Ethyl Alcohol 200 proof	Not listed	Not listed

EU Classification

R-phrase(s)
R11 - Highly flammable.

S -phrase(s)
S 7 - Keep container tightly closed.
S16 - Keep away from sources of ignition - No smoking.

Components	Classification	Concentration Limits:	Safety Phrases
Ethyl Alcohol 200 proof	F; R11	No information	S7 S16

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

Indication of danger:
F - Highly flammable.

16. OTHER INFORMATION

C:\Program Files\Wercs50\graphics\Nfpablack\nfpa_230.wmf

C:\Program Files\Wercs50\graphics\HMIS\230.jpg

Preparation Date: 9/27/2013
Revision Date: 11/11/2015
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