spectrum®



SAFETY DATA SHEET

Preparation Date: 5/1/2014

Revision Date: 9/14/2018

Revision Number: G3

1. IDENTIFICATION Product identifier ET105 Product code: Product Name: ETHYL ACETATE, NF Other means of identification Acetic ether Synonyms: Acetidin Acetoxyethane Ethyl acetic ester Ethyl ethanoate Vinegar naphtha Ethyle (acetate d') (French) Acétate d'éthyle (French) Acétate éthylique (French) Acetato de etilo (Spanish) CAS #: 141-78-6 **RTECS #** AH5425000 Not available CI#: Recommended use of the chemical and restrictions on use Solvent. Perfuming agent. In photographic films and plates. **Recommended use:** Uses advised against No information available Spectrum Chemical Mfg. Corp Supplier: 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000 Order Online At: https://www.spectrumchemical.com Chemtrec 1-800-424-9300 Emergency telephone number 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)

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

Label elements

Danger

Hazard statements

Causes serious eye irritation May cause respiratory irritation. May cause drowsiness or dizziness Highly flammable liquid and vapor



Hazards not otherwise classified (HNOC) Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Avoid breathing dust/fume/gas/mist/vapors/spray 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 Wear protective gloves/protective clothing/eye protection/face protection Keep cool

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 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. Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage

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

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Ethyl Acetate	141-78-6	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.

Skin Contact:	Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops.
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 Coughing and wheezing
	Dyspnea (Difficulty breathing and shortness of breath)
	Central nervous system effects
	Dizziness
	Drowsiness
	Narcosis
	May cause cardiovascular effects
	Causes digestive (gastrointestinal) tract irritation
	May cause nausea and vomiting
	May cause metabolic acidosis
	Sweating and flushing of skin

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically.

<u>Protection of first-aiders</u> 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 M	IEASURES
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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:	Highly 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 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). 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

thoroughly.

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.
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Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods and material for containment and cleaning up

Methods for containmentStop leak if you can do it without risk. Absorb spill with inert material (e.g.
vermiculite, dry sand or earth).Methods for cleaning upUse appropriate tools to put the spilled material in a suitable chemical waste
disposal container. Use only non-sparking tools. Clean contaminated surface

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. Keep away from heat and sources of ignition. Store in a segregated and approved area. Moisture sensitive. Protect from moisture. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents Acids Bases Chlorosulfonic acid Oleum Potassium t-butoxide

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Ethyl Acetate	141-78-6	400 ppm TWA 1400 mg/m³ TWA	400 ppm TWA 1400 mg/m³ TWA	400 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Ethyl Acetate	141-78-6	400 ppm TWA 1440 mg/m³ TWA	150 ppm TWA	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Ethyl Acetate	141-78-6	400 ppm STEL 1440 mg/m ³ STEL 200 ppm TWA 720 mg/m ³ TWA	400 ppm TWA 1400 mg/m³ 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.

7.2 °C/44.96°F

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:	Appearance:	Color:
Liquid	No information available.	Clear. Colorless.
Odor:	Taste	Formula:
Ether-like. Fruity.	Bittersweet. Wine-like. Burning.	C4-H8-O2
Molecular/Formula weight (g/mole)	: Flammability:	Flashpoint (°C/°F):
88.11	Highly flammable	-4.4 °C/24 °F

Flash Point Tested according to: Closed cup Open cup **Upper Explosion Limit (%):** 9-11.5%

Boiling point/range(°C/°F): 77 °C/170.6 °F

Specific gravity: 0.9003 @ 20 °C 0.894-0.898 @ 25 °C

Evaporation rate: 6.2 (butyl acetate = 1)

Odor threshold (ppm): 1.0-4.0

Miscibility: Miscible with Chloroform

Reactive with oxidizing agents Reacts with strong bases Reactive with acids

Reactivity

Autoignition Temperature (°C/°F): 426.6 °C/800 °F

Melting point/range(°C/°F): -83 °C/-117.4 °F

Bulk density: No information available

pH: No information available

Vapor density: 3.04

Partition coefficient (n-octanol/water): 0.73

Solubility: Soluble in Ether Soluble in hot alcohol Soluble in Acetone Soluble in Benzene Very soluble in water Solubility in Water: 64-80 g/L @ 25 °C; 83.1 g/L @ 20 °C

Lower Explosion Limit (%): 2-2.2%

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

Density (g/cm3): No information available

Vapor pressure @ 20°C (kPa): 9.71-10.11 (12.4 kPa @ 25 °C)

VOC content (g/L): No information available

Viscositv: No information available

10. STABILITY AND REACTIVITY

Chemical stability Stability: Stable under recommended storage conditions. Possibility of Hazardous Reactions: Hazardous polymerization does not occur Conditions to avoid: Heat. Incompatible materials. Moisture sensitive. Exposure to moist air. Slowly decomposed by moisture. Oxidizing agents Incompatible Materials: Acids Bases Chlorosulfonic acid Oleum Potassium t-butoxide Hazardous decomposition Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid products: 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 Acetate
CAS-No. 141-78-6
LD50/oral/rat = 5620 mg/kg Oral LD50 Rat
LD50/oral/mouse = 4100 mg/kg
LD50/dermal/rabbit = 20 mL/kg Dermal LD50Rabbit
>18000 mg/kg
LD50/dermal/rat = No information available
LC50/inhalation/rat = 16000 ppm 6 hr
4000 ppm 4 hr
LC50/inhalation/mouse = 45000 mg/m ³ 2hr
1500 ppm 4hr
Other LD50 or LC50information = 4935 mg/kg LD50 Oral Rabbit
5500 mg/kg LD50 Oral Guinea Pig
Product Information
LD50/oral/rat = VALUE- Acute Tox Oral = 5620 mg/kg
LD50/oral/mouse =
Value - Acute Tox Oral = 4100 mg/kg
LD50/dermal/rabbit
VALUE-Acute Tox Dermal = > 18000 mg/kg
LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available
LC50/inhalation/rat
VALUE-Vapor = No information available

VALUE-Vapor = No information available VALUE-Gas = 4000 ppm (4-hr) 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:	May cause skin irritation. It may be absorbed through the skin. If absorbed th skin it may cause systemic effects.	۱rough
Eye Contact:	Causes eye irritation. Causes conjunctival irritation.	
Inhalation	Irritating to respiratory system. Inhalation of high concentrations of vapor ma cause anesthetic effects. Inhalation of high concentrations of vapors may cause	
Product code: ET105	Product name: ETHYL ACETATE, NF	7 / 13

	dizziness or suffocation. It may cause pulmonary edema. It may affect the liver. May affect the kidneys. Symptoms may include sore throat, shortness of breath, coughing, wheezing, inflammation of the nasal passages. May affect behavior/central nervous system (somnolence).
Ingestion	Causes digestive (gastrointestinal) tract irritation. Ingestion may cause nausea, vomiting. May cause flushing and sweating. Aspiration hazard if swallowed. Aspiration into the lungs can cause chemical pneumonitis. May cause metabolic acidosis. May affect the cardiovascular system (tachycardia). May affect the cardiovascular system (tachycardia). May affect the cardiovascular system (somnolence, convulsions). May affect behavior/central nervous system (ataxia). It may affect behavior/central nervous system (boastfulness, talkativeness, belligerency, irritability, slurred speech, diplopia, vertigo, drowsiness, coma).
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 defatting, dryness, and cracking of the skin. Prolonged or repeated ingestion may affect the liver. Prolonged or repeated inhalation may affect the kidneys. Prolonged or repeated inhalation may affect the liver. Prolonged or repeated inhalation may produce changes in pulmonary function and/or chronic bronchitis. Repeated exposure may cause bronchitis to develop with cough, phlegm, and /or shortness of breath. Prolonged or repeated inhalation may affect the blood (anemia, leukocytosis, reduced platelet count). Prolonged or repeated inhalation may affect the blood (changes in red blood cell count). Prolonged or repeated inhalation may cause central nervous system effects. Prolonged or repeated inhalation may cause loss of appetite. Prolonged or repeated exposure may affect the heart.
Sensitization:	No information available.
Mutagenic Effects:	May affect genetic material Experiments with bacteria and/or yeast have shown mutagenic effects Animal experiments showed mutagenic effects

Carcinogenic effects:

Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Ethyl Acetate	141-78-6	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

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

Specific	Target	Organ	Toxicity	

STOT - single exposure	Respiratory system. central nervous system.
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Product code: ET105 Product name: ETHYL ACETATE, NF

No information available. Skin. Central nervous system. Liver. Kidneys. Lungs. Respiratory system. Heart.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:	Aquatic environment.
Ethyl Acetate - 141-78-6 Freshwater Algae Data: Freshwater Fish Species Data: Water Flea Data:	3300 mg/L EC50 Desmodesmus subspicatus 48 h 220 - 250 mg/L LC50 Pimephales promelas 96 h flow-through 1 484 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1 352 - 500 mg/L LC50 Oncorhynchus mykiss 96 h semi-static 1 560 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	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Ethyl Acetate	141-78-6	None	None	None	U112 ignitable waste

14. TRANSPORT INFORMATION

DOT

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Subsidiary Risk: Packing Group: Marine Pollutant Description:	No information available II No Information available ETHYL ACETATE,3,UN1173,PG II
ADR UN-No: Proper Shipping Name: Hazard Class: Packing Group: Subsidiary Risk: Description:	UN1173 Ethyl acetate 3 II No information available UN1173 Ethyl acetate,3,II
IMO / IMDG UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Marine Pollutant EMS:	UN1173 Ethyl acetate 3 No information available II No information available F-E
RID UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Description:	UN1173 Ethyl acetate 3 3 II UN1173 Ethyl acetate,3,II,RID
ICAO UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: Description:	UN1173 Ethyl acetate 3 No information available II Ethyl acetate,3,UN1173,PG II
IATA UN-No: Proper Shipping Name: Hazard Class: Subsidiary Risk: Packing Group: ERG Code: Special Provisions Description:	UN1173 Ethyl acetate 3 No information available II 3L No information available UN1173,Ethyl acetate,3,PG II

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Ethyl Acetate	141-78-6	PresentACTIV E	Present KE-00047	Present	Present (2)-726	Present	Present	Present 205-500-4

U.S. Regulations

Ethyl Acetate

Massachusetts RTK: Present New Jersev RTK Hazardous Substance List: 0841 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 1 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 182.60 **FDA - Direct Food Additives** 21 CFR 173.228 FDA - 21 CFR - Total Food Additives 172.560, 172.859, 173.228, 175.320, 177.1200, 182.60, 73.1

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	Male	Female
		_		Reproductive	Reproductive
				Toxicity	Toxicity:
Ethyl Acetate	141-78-6	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
Ethyl Acetate	141-78-6	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
Ethyl Acetate	141-78-6	Not Applicable	Not Applicable

Canada

WHIMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component Ethyl Acetate 141-78-6 (100) WHMIS 2015 Hazard Classification Flammable liquids - Category 2: H225 Highly flammable liquid and vapour.

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

Components	WHMIS Ingredient Disclosure List -
Ethyl Acetate	1 %

Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Ethyl Acetate	141-78-6	Present	Not Listed
Components		CAS-No.	CEPA Schedule I - Toxic Substances
Ethyl Acetate		141-78-6	Not listed
Components		CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Ethyl Acetate		141-78-6	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Ethyl Acetate	141-78-6	Flammable liquids - Flam. Liq. 2: H225
		Highly flammable liquid and vapour.;
		Serious Eye Damage/Eye Irritation -
		Eye Irrit. 2: H319 Causes serious eye
		irritation.; Specific target organ toxicity
		- Single exposure - STOT SE 3: H336
		May cause drowsiness or dizziness.;
		Supplemental Hazards: EUH066
		Repeated exposure may cause skin
		dryness or cracking.607-022-00-5

EU - CLP (1272/2008)

R-phrase(s)

R11 - Highly flammable.

R36 - Irritating to eyes.

R66 - Repeated exposure may cause skin dryness or cracking.

R67 - Vapors may cause drowsiness and diziness.

S -phrase(s)

S16 - Keep away from sources of ignition - No smoking.

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

S33 - Take precautionary measures against static discharges.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Ethyl Acetate	141-78-6	F; R11 Xi; R36 R66 R67	No information	S16 S26 S33

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

Indication of danger:

F - Highly flammable.

Xi - Irritant.



16. OTHER INFORMATION

Preparation Date:	5/1/2014
Revision Date:	9/14/2018
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