

SAFETY DATA SHEET

Preparation Date: 04/23/2015

Revision date 11/07/2019

Revision Number: G2

1. IDENTIFICATION

Product identifier

Product code: L1075
Product Name: LEAD NITRATE, CRYSTAL, REAGENT, ACS

Other means of identification

Synonyms: Lead (2+) Nitrate
 Lead dinitrate
 Lead (II) Nitrate
 Nitric acid, lead (2+)
 Plumbous nitrate

CAS #: 10099-74-8
RTECS # OG2100000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
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: Tom Tyner (USA - West Coast)
Contact Person: Ibad Tirmiz (USA - East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by 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 4
Acute toxicity - Inhalation (Gases)	Category 4
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1A
Specific target organ toxicity (repeated exposure)	Category 2
Oxidizing solids	Category 3

Label elements

Danger

Hazard statements

Harmful if swallowed or if inhaled
Causes serious eye irritation
May cause cancer
May damage fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure
May intensify fire; oxidizer



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
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
Keep away from heat
Keep/Store away from clothing and other combustible materials
Take any precaution to avoid mixing with combustibles

Precautionary Statements - Response

IN CASE OF FIRE: Use water to extinguish. Do not use dry chemicals or foams. CO2 or Halon may provide limited control.

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 attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell

Rinse mouth

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents and container to an approved waste disposal plant in accordance with local, regional, national and international regulations as applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight-%
Lead Nitrate	10099-74-8	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 skin irritation persists, call a physician.
- Eye Contact:** Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.
- Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Immediate medical attention is required.
- Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

Most important symptoms and effects, both acute and delayed

- Symptoms**
- Causes serious eye irritation
 - May cause skin irritation
 - Nose and throat irritation
 - May cause methemoglobinemia and cyanosis
 - Convulsions
 - Dyspnea (Shortness of breath and difficulty breathing)
 - Headache
 - Anemia
 - Insomnia
 - Muscle weakness
 - May cause depression
 - Dizziness

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: Water. CO2 may be of no value in extinguishing fires involving oxidizers and may only provide limited control.

Unsuitable Extinguishing Media: Dry chemical. Foam. Halons.

Specific hazards arising from the chemical

Hazardous combustion products Nitrogen oxides (NOx). Lead.

Specific hazards Oxidizer. Keep away from combustible materials (wood, paper, oil, clothing, etc.). Will accelerate burning when involved in a fire.
May ignite combustibles (wood, paper, oil, clothing, etc.).
Lead nitrate reacts with brilliant sparks when projected on red-hot carbon.

Dangerous fire risk in contact with organic materials.
When heated to decomposition it emits very toxic fumes of lead and nitrogen oxides.
May react explosively with hydrocarbons (fuels).
Many metal oxo-compounds (nitrates, oxides, and particularly sulfates) and sulfides are reduced violently or explosively in heating with aluminum powder to a suitably high temperature.
May explode when in presence of organic or easily oxidizable compounds.
May form explosive compound with ammonium thiocyanate, potassium acetate, or lead hypophosphite.

Special Protective Actions for Firefighters

Specific Methods:

For large fires, flood fire area with water from a distance
Cool affected containers with flooding quantities of water
Do not get water inside containers DO NOT use combustible materials such as sawdust

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. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition. Keep combustibles (wood, paper, oil, clothing, etc.) away from spilled material.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. 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. Cover with plastic sheet to prevent spreading.

Methods for cleaning up

Sweep up and shovel into suitable containers for disposal. Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Do not use combustible materials such as paper towels, sawdust, clothing, etc. to clean up spill. 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. Do not ingest. Do not breathe dust. Keep away from combustible material. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

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

Incompatible Materials:

Acids
Alkalis
Combustible materials
Organic materials
Reducing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Component	CAS No	OSHA	NIOSH	ACGIH	AIHA WEEL
Lead Nitrate	10099-74-8	None	None	None	None

Canada

Component	CAS No	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Lead Nitrate	10099-74-8	None	None	None	None

Australia and Mexico

Component	CAS No	Australia	Mexico
Lead Nitrate	10099-74-8	None	None

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles or Safety glasses with side-shields.

Skin and body protection: Chemical resistant apron
Gloves
Long sleeved clothing

Respiratory protection: Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and

engineering controls are not feasible. 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: Solid	Appearance: Translucent.	Color: Colorless. White.
Odor: Odorless.	Taste No information available.	Formula Pb(NO ₃) ₂
Molecular/Formula weight (g/mole): 331.20	Flammability (solid, gas) no data available	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): 470°C/878°F -decomposes	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Bulk density: No information available	Density (g/cm³): No information available
Specific gravity: 4.53	pH No information available	Vapor pressure @ 20°C (kPa): No information available
Evaporation rate: No information available	Vapor density: No information available	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: Easily soluble in cold water Easily soluble in hot water Insoluble in Nitric acid Soluble in Methanol Solubility in water: 1g/2ml cold water; 1g/0.75ml boiling water; 37.65g/100ml water @ 0°C; 56.5g/100ml water @ 20°C; 127g/100ml water at 100°C. Solubility in absolute alcohol: 1g/2500ml Solubility in Methanol: 1g/75ml	

10. STABILITY AND REACTIVITY

Reactivity

Highly reactive with combustible materials, organic materials.

Incompatible with Ammonium thiocyanate, powdered carbon, lead hypophosphite, potassium acetate, aluminum, alkyl esters, hydroxylamine, phosphorus, phosphinates, sulfur, tin chloride.

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: Acids
Alkalis
Combustible materials
Organic materials
Reducing agents

Hazardous decomposition products: Nitrogen oxides (NOx). Metallic oxides.

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. Inhalation. Skin.

Acute Toxicity

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

Lead Nitrate	
CAS No	10099-74-8

LD50/oral/rat = 93 mg/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 Toxicity = 93 mg/kg

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

LD50/dermal/rabbit
Value - Acute Toxicity = No information available

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

LC50/inhalation/rat**VALUE-Vapor** = No information available**VALUE-Gas** = No information available**VALUE-Dust/Mist** = No information available**LC50/Inhalation/mouse****VALUE-Vapor** = No information available**VALUE - Gas** = No information available**VALUE - Dust/Mist** = No information available**Symptoms****Skin Contact:** Causes skin irritation.**Eye Contact:** Causes serious eye irritation.**Inhalation** Breathing lead nitrate can irritate the nose and throat. Irritation of the bronchi and lungs may also occur. It may be absorbed through the respiratory system. It may cause methemoglobinemia, cyanosis (bluish discoloration of skin due to deficient oxygenation of blood), convulsions, tachycardia, chest pain due to dyspnea (labored breathing), and death. It may also affect behavior/central nervous system and cause central nervous system effects including headache, convulsions, and possible death. It may cause kidney damage and anemia. It may also cause other symptoms similar to that of ingestion.**Ingestion** Acute lead poisoning or plumbism is rare. Acute lead poisoning by ingestion may result in lead colic, abdominal discomfort or cramps, lead line on the gums, anorexia (loss of appetite)/weight loss, constipation, metallic taste. It may also affect behavior/central nervous system and cause headache, lassitude, insomnia, muscle weakness, depression, irritability, lassitude, dizziness, reduced memory, disturbed sleep, poor coordination, mood and personality changes, or coma and possible death in extreme cases. It may also cause hypotension, and may also affect the kidneys. High lead levels in the blood and urine may be found. Soluble nitrates can be reduced to nitrites which can produce Methemoglobinemia.**Aspiration hazard** No information available.**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** Skin: It may be absorbed through the skin.
Ingestion and Inhalation: Prolonged or repeated ingestion and inhalation may cause similar effects to those of acute ingestion and inhalation. It may result in metallic taste, upset stomach, nausea, vomiting, lead colic and loss of appetite, weight loss, a paralysis of peripheral motor nerves causing weakness "pins and needles", anemia, kidney injury, male and female reproductive effects, and developmental effects in unborn and developing children. It may also affect behavior/central nervous system and cause headache, irritability, reduced memory, disturbed sleep, poor coordination, mood and personality changes and other symptoms similar to acute exposure.**Sensitization:** No information available.**Mutagenic Effects:** Mutagenic effects in mammalian somatic cells
May affect genetic material

Carcinogenic effects: May cause cancer.

Component	CAS No	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Lead Nitrate	10099-74-8	Monograph 87 [2006] Supplement 7 [1987] Monograph 23 [1980]	Not listed	Reasonably Anticipated To Be A Human Carcinogen	Present	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 May damage fertility or the unborn child

Reproductive Effects: Crosses the placenta in humans
May cause adverse reproductive effects

Developmental Effects: No information available

Teratogenic Effects: May cause birth defects (teratogenic effects)

Specific Target Organ Toxicity

STOT - single exposure No information available.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Target Organs: Blood. Central nervous system. Kidneys. Peripheral nervous system. Reproductive System.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Ecotoxicity in water (LC50): 240 ppm 48 hours [Fish (Mosquito fish)]. 6.7 ppm 96 hours [Daphnia (daphnia)].

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility in soil No information available

Other adverse effects 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

Component	CAS No	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Lead Nitrate	10099-74-8	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: UN1469
Proper Shipping Name: Lead nitrate
Hazard Class 5.1
Subsidiary Class 6.1
Packing group: II
Emergency Response Guide Number 141
Marine Pollutant Marine Pollutant
DOT RQ (lbs): No information available
Special Provisions IB8, IP2, IP4, T3, TP33
Symbol(s): [DOT]: (P) - Identifies a material that is a marine pollutant. [DOT]: (R2) - Identifies a material that is a hazardous substance that has a reportable quantity (RQ) of 10 pounds (4.54 Kilograms).
Description: UN1469, Lead nitrate, 5.1 (6.1), II

TDG (Canada)

UN-No: UN1469
Proper Shipping Name: Lead nitrate
Hazard Class 5.1
Subsidiary Risk: (6.1)
Packing Group: II
Marine Pollutant No Information available
Description: UN1469, Lead nitrate, 5.1 (6.1), II

ADR

UN Number UN1469
Proper Shipping Name: Lead nitrate
Transport hazard class(es) 5.1
Packing group II
Subsidiary Risk: 6.1
Description: UN1469, Lead nitrate, 5.1 (6.1), II

IMDG

UN-No: UN1469
Proper Shipping Name: Lead nitrate
Hazard Class: 5.1
Subsidiary Risk: 6.1, P
Packing Group: II
Marine Pollutant No information available
EMS: F-A
Description UN1469, Lead nitrate, 5.1 (6.1), II

RID

UN Number UN1469
Proper Shipping Name: Lead nitrate
Transport hazard class(es) 5.1
Subsidiary Risk: 6.1
Packing group II
Description: UN1469, Lead nitrate, 5.1 (6.1), II

ICAO (air)

UN-No: UN1469
Proper Shipping Name: Lead nitrate
Hazard Class 5.1
Subsidiary Risk: 6.1
Packing Group: II
Description: UN1469, Lead nitrate, 5.1 (6.1), II

IATA

UN Number UN1469
Proper Shipping Name: Lead nitrate
Transport hazard class(es) 5.1
Subsidiary Risk: 6.1
Packing group II
Precautionary Statements - Response 5P
Special Provisions No information available
Description: UN1469, Lead nitrate, 5.1 (6.1), II

15. REGULATORY INFORMATION


International Inventories

Component	CAS No	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	China IECSC	Australia (AICS)	EINECS-No.
Lead Nitrate	10099-74-8	Present ACTIV E	Present KE-21907	Present	Present (1)-488	Present	Present	Present 233-245-9

U.S. Regulations*Lead Nitrate*

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 1108
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
New York Release Reporting - List of Hazardous Substances:
 10 lb RQ
Louisiana Reportable Quantity List for Pollutants: Listed
California Directors List of Hazardous Substances: Present

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 can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

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)

Component	CAS No	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Lead Nitrate	10099-74-8	carcinogen (lead compounds)	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Component	CAS No	CERCLA -	Section 302	Section 302	Section 313 -	Section 313 -

		Hazardous Substances and their Reportable Quantities	Extremely Hazardous Substances and TPQs	Extremely Hazardous Substances and RQs	Chemical Category	Reporting de minimis
Lead Nitrate	10099-74-8	10 lb final RQ 4.54 kg final RQ	None	None	None	None

U.S. TSCA

Component	CAS No	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Lead Nitrate	10099-74-8	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

Component
Lead Nitrate
10099-74-8 (100)

WHMIS 2015 Hazard Classification
Oxidizing solids - Undefined: Oxidizing solids - undefined category (hazard class was established from consulted scientific literature but did not allow to specify hazard category); Carcinogenicity - Category 1B: H350 May cause cancer. (toxicity of Inorganic lead compounds is related to the presence of Pb(2+) ion and classification is based on toxicity of this particular ion and accounts for data available for Inorganic lead compounds); Reproductive Toxicity - Category 1A: H360 May damage fertility or the unborn child. (toxicity of Inorganic lead compounds is related to the presence of Pb(2+) ion and classification is based on toxicity of this particular ion and accounts for data available for Inorganic lead compounds); Specific target organ toxicity - Repeated exposure - Category 1: H372 Causes damage to organs through prolonged or repeated exposure. (toxicity of Inorganic lead compounds is related to the presence of Pb(2+) ion and classification is based on toxicity of this particular ion and accounts for data available for Inorganic lead compounds)

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

DSL/NDSL

Component	CAS No	Canada (DSL)	Canada (NDSL)
Lead Nitrate	10099-74-8	Present	Not Listed

Component	CAS No	CEPA Schedule I - Toxic Substances
Lead Nitrate	10099-74-8	Not listed
Component	CAS No	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Lead Nitrate	10099-74-8	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Component	CAS No	EU GHS - SV - CLP (1272/2008)
Lead Nitrate	10099-74-8	

EU - CLP (1272/2008)

R-phrase(s)

R 8 - Contact with combustible material may cause fire.
R33 - Danger of cumulative effects
R36 - Irritating to eyes
R45 - May cause cancer
R61 - May cause harm to the unborn child
R62 - Possible risk of impaired fertility
R20/22 - Harmful by inhalation and if swallowed
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S -phrase(s)

S 7 - Keep container tightly closed.
S 9 - Keep container in a well-ventilated place.
S36 - Wear suitable protective clothing
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
S53 - Avoid exposure - obtain special instructions before use
S60 - This material and its container must be disposed of as hazardous waste
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

Component	CAS No	Classification	Concentration Limits:	Safety Phrases
Lead Nitrate	10099-74-8		No information	

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

Indication of danger:

O - Oxidising.
Xn - Harmful

16. OTHER INFORMATION

Preparation Date: 04/23/2015
Revision date 11/07/2019
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