SAFETY DATA SHEET

1. IDENTIFICATION

Product code: RH115
Product Name: RHODAMINE B

Other means of identification
1. IDENTIFICATION

Synonyms: Ammonium, (9-(o-carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene) diethyl-, chloride
D and C Red No. 19
Acid Brilliant Pink B
ADC Rhodamine B
Aizen Rhodamine BH/Aizen Rhodamine BHC
Akiriku Rhodamine B
Basic Violet 10
Brilliant Pink B
Calcozine Red BX/Calcozine Rhodamine BXP
9-O-Carboxyphenyl-6-diethylamino-3-ethylimino-3-isoxanthene, 3-ethochloride
(9-(o-Carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene) diethylammonium chloride
Cerise Toner X1127
Certiqual Rhodamine
CI Basic Violet 10
CI Food Red 15
Cogilor Red 321.10
Cosmetic Brilliant Pink Bluish D Conc
Diabasic Rhodamine B
Edicol Suppa Rose BS/Edicol Supra Rose B/Edicol Supra Rose BS
Elcozine Rhodamine B
Eriosin Rhodamine B
Ethanaminium, N-(9-(2-carboxyphenyl)-6-(diethylamino)-3H-xanthen-3-ylidene)-N-ethyl-,chloride
Geranium Lake N
Hexacol Rhodamine B Extra
Ikada Rhodamine B
Iragen Red L-U
Mitsui Rhodamine BX
Red No. 213
Rheonine B
Rhodamine/Rhodamine B 20-7470/Rhodamine B500/Rhodamine B chloride
Rhodamine B Extra/Rhodamine B Extra M 310/Rhodamine B Extra S
Rhodamine B500 hydrochloride
Rhodamine BA
Rhodamine Lake Red B
Rhodamine, tetraethyl-
Sicilian Cerise Toner A-7127
Symulex Magenta F/Symulex Pink F/Symulex Rhodamine B Toner F
Takaoka Rhodamine B
Tetraethyldiamino-o-carboxyphenyl xanthenyl chloride
Tetraethylrhodamine
Basic Rose Extract/Basic Rose Red
Basonyl Red 540/Basonyl Red 545/Basonyl Red 545FL
Cerise Toner X 1127
Violet zasadita 10

CAS #: 81-88-9
RTECS #: BP3675000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Dyes. Paints. Research and Development. Laboratory reagent.

Uses advised against: No information available
1. IDENTIFICATION

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)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label elements

Warning

Hazard statements
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation

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
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response
Specific treatment (see .? on this label)
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: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse

Product code: RH115  Product name: RHODAMINE B
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.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
<td>81-88-9</td>
<td>100</td>
<td>*</td>
</tr>
</tbody>
</table>

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 eye with water for 15 minutes. Get medical attention.

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

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 Harmful if swallowed. Causes serious eye irritation. Causes skin irritation. May cause irritation of respiratory tract.

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: Dry chemical. Carbon dioxide (CO2). Water, spray, mist, or foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides, Hydrogen chloride

Product code: RH115 Product name: RHODAMINE B
### 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. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Evacuate personnel to safe areas. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. All equipment used when handling the product must be grounded.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Prevent from entering into soil, ditches, sewers, waterways, and/or ground water. 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. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up**
Sweep up and shovel into suitable containers for disposal. 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. All equipment used when handling the product must be grounded. Avoid dust formation. Remove all sources of ignition. Keep away from incompatible materials.

**Safe Handling Advice**
Wear personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Use only in well-ventilated areas. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Keep in a dry, well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

**Incompatible Materials:**
Oxidizing agents.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Product code:** RH115  
**Product name:** RHODAMINE B
National occupational exposure limits

## United States

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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## Canada

<table>
<thead>
<tr>
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<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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## Australia and Mexico

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<thead>
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<th>Mexico</th>
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</thead>
<tbody>
<tr>
<td>Rhodamine B, O 81-88-9</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

## 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:** Safety glasses with side-shields
- **Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.
- **Respiratory protection:** Wear respirator with dust filter. 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
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.

Odor: Odorless.

Taste: No information available

Flammability: No information available

Flashpoint (°C/°F): No information available.

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Melting point/range(°C/°F): 210-211°C/410-412°F (dec)

Boiling point/range(°C/°F): No information available

Density (g/cm3): 0.79

Flash Point Tested according to: No information available

Autoignition Temperature (°C/°F): No information available

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

Volatility: No information available

Flashpoint (°C/°F): No data available

Vapor pressure @ 20°C (kPa): No information available

Evaporation rate: No information available

VOC content (g/L): No information available

Odor threshold (ppm): No information available

Miscibility: No information available

Partition coefficient (n-octanol/water): No information available

Flammability: No information available

Viscosity: No information available

Solubility: Very soluble in water

Density (g/cm3): 479.02 g/mol

Molecular/Formula weight: 479.02 g/mol

Color: Green. Reddish-violet.

Formula: C28H31N2O3Cl

10. STABILITY AND REACTIVITY

Reactivity

Reactive with oxidizing agents

Chemical stability

Stability: Stable under recommended storage conditions

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid:


Incompatible Materials:

Oxidizing agents.

Hazardous decomposition products:


Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Principal Routes of Exposure:
Eyes. Skin. Inhalation. Ingestion.

Acute Toxicity

Component Information

Rhodamine B, O - 81-88-9
LD50/oral/rat = 174 mg/kg Oral LD50 Rat
LD50/oral/mouse = 887 mg/kg Oral LD50 Mouse
LD50/dermal/rat = No information available
LD50/dermal/rabbit = 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 = 174mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 887

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

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Inhalation May cause respiratory tract irritation (local irritaiton of the bronchia, and lungs). Symptoms suchas metallic taste, chest and abdominal pain may occur. Can be absorbed through the respiratory system, and increased lead blood levels may follow resulting in systemic effects..

Ingestion Harmful if swallowed. Causes digestive (gastrointestinal) tract irritation. May affect metabolism (weight loss or decreased weight gain). It may affect the kidneys and liver. May affect the urinary system (bladder).

Aspiration hazard No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure
Chronic Toxicity: No information available

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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<tbody>
<tr>
<td>Rhodamine B, O</td>
<td>Supplement 7 [1987]</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</table>

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 Tract.

STOT - repeated exposure: No information available

Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: Harmful to aquatic organisms, causes long-term adverse effects in the aquatic environment.

**Rhodamine B, O - 81-88-9**

Freshwater Fish Species Data:

- 33.9 mg/L LC50 Oryzias latipes 48h
- 83.9 mg/L LC50 Cyprinodon variegatus 96h
- 379 mg/L LC50 Lepomis macrochirus 96h
- 217 mg/L LC50 Oncorhynchus mykiss 96h

Water Flea Data:

- 22.9 mg/L EC50 Daphnia magna 48h

Persistence and degradability: Not readily biodegradable

Bioaccumulative potential: 0.1 mg/L Cyprinus carpio 24d

BCF <0.2

Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Product code: RH115  
Product name: RHODAMINE B
13. DISPOSAL CONSIDERATIONS

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

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Subsidiary Risk: No information available
- Packing Group: None
- ERG No: No information available
- Marine Pollutant: No data available
- DOT RQ (lbs): No information available

TDG (Canada)
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Subsidiary Risk: No information available
- Packing Group: No information available
- Description: No information available

ADR
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Packing Group: No information available
- Subsidiary Risk: No information available
- Classification Code: No information available
- Description: No information available
- CEFIC Tremcard No: No information available

IMO / IMDG
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Subsidiary Risk: No information available
- Packing Group: No information available
- Description: No information available
- IMDG Page: No information available
- Marine Pollutant: No information available
- MFAQ: No information available
- Maximum Quantity: No information available

RID
- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available

Product code: RH115    Product name: RHODAMINE B
14. TRANSPORT INFORMATION

Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS (5)-1973</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
<td>Present</td>
<td>Present KE-07007</td>
<td>Present</td>
<td>Present (5)-4056</td>
<td>Present</td>
<td>Present</td>
<td>Present 201-383-9</td>
</tr>
</tbody>
</table>

U.S. Regulations

Rhodamine B, O

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: 0505
New Jersey (EHS) List: 0505 500 lb TPQ
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List Present
California Directors List of Hazardous Substances: Present


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)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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<td>carcinogen</td>
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<td>Not Listed</td>
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</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
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<td>None</td>
<td>None</td>
<td>None</td>
<td>1.0 % de minimis concentration</td>
</tr>
</tbody>
</table>

Product code: RH115
Product name: RHODAMINE B
U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class:
D2B  Toxic materials

Rhodamine B, O
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.

<table>
<thead>
<tr>
<th>Components</th>
<th>WHMIS Ingredient Disclosure List -</th>
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</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
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Inventory

<table>
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<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
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</thead>
<tbody>
<tr>
<td>Rhodamine B, O</td>
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<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<tbody>
<tr>
<td>Rhodamine B, O</td>
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EU Classification

R-phrase(s)
R22 - Harmful if swallowed.

S -phrase(s)
none

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tbody>
<tr>
<td>Rhodamine B, O</td>
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</table>

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

Indication of danger:
Xi - Irritant.
16. OTHER INFORMATION

Preparation Date: 8/11/2015
Revision Date: 8/11/2015
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