SAFETY DATA SHEET

Issuing Date 15-Mar-2018  Revision Date 15-Mar-2018  Revision Number 0

This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico’s NMX-R-019-SC-2011.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name R-100

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Viscometer and/or density measurement equipment calibration and performance verification reference standard

Uses advised against No information available

Supplier's details

Supplier Address Cannon Instrument Company
2139 High Tech Rd.
State College, PA 16803-1733
TEL: (814) 353-8000; (800) 676-6232

Emergency telephone number

Emergency Telephone (800) 255-3924 Domestic CHEM-TEL Inc.
Number +1 (813) 248-0585 Overseas CHEM-TEL Inc. (Please Call Collect)

2. HAZARDS IDENTIFICATION

Classification

This product is considered hazardous according to the criteria set within the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico’s NMX-R-019-SC-2011.

<table>
<thead>
<tr>
<th>Label Elements</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Inhalation Toxicity - Dusts and Mists</td>
<td>4</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>1</td>
</tr>
</tbody>
</table>

Signal Word Danger
Hazard Statements
Harmful if inhaled
May be fatal if swallowed and enters airways

Physical and Health Hazards Not Otherwise Classified
Not applicable.

Precautionary Statements
Prevention
• Avoid breathing dust/fume/gas/mist/vapors/spray.
• Use only outdoors or in a well-ventilated area.

General Advice
• None

Inhalation
• 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.

Ingestion
• IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
• Do NOT induce vomiting.

Storage
• Store locked up.

Disposal
• Dispose of contents/container to an approved waste disposal plant.

Other information
Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Prolonged skin contact may defat the skin and produce dermatitis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Hazardous Material Information Review Act registry number (HMIRA registry #)</th>
<th>Date HMIRA filed and date exemption granted (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual oils (petroleum), solvent refined</td>
<td>64742-01-4</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined light paraffinic</td>
<td>64741-89-5</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined heavy paraffinic</td>
<td>64741-88-4</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Petroleum distillates, solvent dewaxed heavy paraffinic</td>
<td>64742-65-0</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>64742-54-7</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td>64742-52-5</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>64742-48-9</td>
<td>&lt; 70</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic</td>
<td>64742-53-6</td>
<td>&lt; 40</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Description of necessary first-aid measures

Eye Contact
Rinse thoroughly with plenty of water, also under the eyelids. Obtain medical attention if irritation persists.

Skin Contact
Wash off with warm water and soap. Remove and wash contaminated clothing before
re-use. Get medical attention if symptoms occur.

Inhalation

IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position
comfortable for breathing. Get medical attention.

Ingestion

Drink plenty of water. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth
to an unconscious person. Get medical attention.

**Most important symptoms/effects, acute and delayed**

**Most Important Symptoms/Effects**

Drowsiness. Dizziness. Irritation.

**Indication of immediate medical attention and special treatment needed, if necessary**

Notes to Physician

Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the
surrounding environment.

**Unsuitable Extinguishing Media**

CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific Hazards Arising from the**

**Chemical**

No information available.

**Explosion Data**

- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

**Protective Equipment and**

**Precautions 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**

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

**Environmental Precautions**

Prevent further leakage or spillage if safe to do so. See Section 12 for additional Ecological
Information.

**Methods and materials for containment and cleaning up**

**Methods for Containment**

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth,
diatomaceous earth, vermiculite) and place in container for disposal according to local
/ national regulations (see Section 13).

**Methods for Cleaning Up**

Clean contaminated surface thoroughly.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Handling**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Handle in
accordance with good industrial hygiene and safety practice.

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

**Storage**

Keep away from open flames, hot surfaces and sources of ignition. Keep containers tightly
closed in a dry, cool and well-ventilated place.
Incompatible Products

Strong oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4</td>
<td>TWA: 5 mg/m³, as oil mist, mineral&lt;br&gt;STEL: TWA: 10 mg/m³, as oil mist, mineral</td>
<td>TWA: 5 mg/m³, as oil mist, mineral</td>
<td>-</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent refined 64742-01-4</td>
<td>TWA: 5 mg/m³, as oil mist, mineral&lt;br&gt;STEL: TWA: 10 mg/m³, as oil mist, mineral</td>
<td>TWA: 5 mg/m³, as oil mist, mineral</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7</td>
<td>TWA: 5 mg/m³, as oil mist, mineral&lt;br&gt;STEL: TWA: 10 mg/m³, as oil mist, mineral</td>
<td>TWA: 5 mg/m³, as oil mist, mineral</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0</td>
<td>TWA: 5 mg/m³, as oil mist, mineral&lt;br&gt;STEL: TWA: 10 mg/m³, as oil mist, mineral</td>
<td>TWA: 5 mg/m³, as oil mist, mineral</td>
<td>-</td>
</tr>
</tbody>
</table>

### Appropriate engineering controls

#### Engineering Measures
- Showers
- Eyewash stations
- Ventilation systems

#### Individual protection measures, such as personal protective equipment

**Eye/Face Protection**
- Safety glasses with side-shields.

**Skin and Body Protection**
- Wear protective gloves/clothing.

**Respiratory Protection**
- If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

### Hygiene Measures
- Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks/ - Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Melting Point/Range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling Point/Boiling Range</td>
<td>&gt; 260 °C</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point</td>
<td>&gt; 145 °C</td>
<td>Open cup</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Relative Density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.86</td>
<td>at 15 °C</td>
</tr>
<tr>
<td>Appearance</td>
<td>Pale yellow.</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Hydrocarbon-like.</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Reactivity  Not reactive under normal conditions.
Chemical stability  Stable under recommended storage conditions.
Possibility of hazardous reactions  None under normal processing.
Hazardous Polymerization  Hazardous polymerization does not occur.
Conditions to avoid  Keep away from open flames, hot surfaces and sources of ignition.
Incompatible materials  Strong oxidizing agents.
Hazardous decomposition products  None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
Inhalation  Harmful by inhalation. Inhalation of mist may cause irritation to the respiratory system.
Eye Contact  Contact with eyes may cause irritation.
Skin Contact  No known hazard in contact with skin. Prolonged skin contact may defat the skin and produce dermatitis. Prolonged or repeated contact may dry skin and cause irritation.
Ingestion  Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis. May be fatal if swallowed and enters airways.

Numerical measures of toxicity - Product
The following values are calculated based on chapter 3.1 of the GHS document:

Inhalation

dust/mist  2.18 mg/L; (ATE Mix)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>LD50 Oral (mg/kg) (Rat)</th>
<th>LD50 Dermal (mg/kg) (Rabbit)</th>
<th>LC50 Inhalation (mg/L) (Rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, solvent-refined heavy paraaffinic</td>
<td>&gt; 5000</td>
<td>&gt; 2000</td>
<td>&gt; 5530</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined light paraaffinic</td>
<td>&gt; 15</td>
<td>&gt; 5</td>
<td>= 2.18</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent refined</td>
<td>&gt; 5000</td>
<td>&gt; 2000</td>
<td>= 2.18</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy</td>
<td>&gt; 6000</td>
<td>&gt; 3160</td>
<td>&gt; 8500</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td>&gt; 5000</td>
<td>&gt; 2000</td>
<td>-</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated</td>
<td>&gt; 5000</td>
<td>&gt; 5000</td>
<td>-</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>ACGIH</td>
<td>IARC</td>
<td>NTP</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
<td>------</td>
<td>-----</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent refined</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined light paraffinic</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined heavy paraffinic</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>Petroleum distillates, solvent dewaxed heavy paraffinic</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td>A2</td>
<td>Group 1</td>
<td>Known</td>
</tr>
</tbody>
</table>

ACGIH: (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)
Known - Known Carcinogen

OSHA: (Occupational Safety & Health Administration)
X - Present

Reproductive Toxicity
No information available

STOT - single exposure
No information available

STOT - repeated exposure
No information available

Chronic Toxicity
May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination. Prolonged skin contact with liquid may defat skin and produce dermatitis.

Target Organ Effects
Respiratory system. Eyes. Skin. Central nervous system (CNS).

Aspiration Hazard
No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity
The environmental impact of this product has not been fully investigated.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to Algae</th>
<th>Toxicity to Fish</th>
<th>Toxicity to Microorganisms</th>
<th>Daphnia Magna (Water Flea)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, solvent-refined heavy paraffinic 64741-88-4</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>-</td>
<td>-</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Petroleum distillates, solvent-refined light paraffinic 64741-89-5</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>-</td>
<td>-</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent refined 64742-01-4</td>
<td>&gt; 5000 mg/L: LC50 96 h (Oncorhynchus mykiss)</td>
<td>-</td>
<td>-</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy 64742-48-9</td>
<td>LC50 96 h: = 2200 mg/L (Pimephales promelas)</td>
<td>LC50 96 h: = 2.6 mg/L (Chaetogammarus marinus)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic 64742-52-5</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic 64742-54-7</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Petroleum distillates, solvent dewaxed heavy paraffinic 64742-65-0</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
<td>-</td>
<td></td>
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<tr>
<td>Petroleum distillates, hydrotreated light naphthenic 64742-53-6</td>
<td>LC50 96 h: &gt; 5000 mg/L (Oncorhynchus mykiss)</td>
<td>EC50 48 h: &gt; 1000 mg/L (Daphnia magna)</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
No information available

**Bioaccumulation**
No information available

**Mobility**
No information available

**Other Adverse Effects**
No information available.

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods**
Dispose of in accordance with federal, state, and local regulations.

**Contaminated Packaging**
Do not re-use empty containers.

### 14. TRANSPORT INFORMATION

**Note:** The information provided below may not apply to all shipping situations. Consult appropriate Dangerous Goods Regulations for additional requirements and mode-specific, material-specific, or quantity-specific shipping requirements.

**DOT**
Not regulated

**TDG**
Not regulated

**MEX**
Not regulated

**IATA**
Not regulated

**IMDG/IMO**
Not regulated
15. REGULATORY INFORMATION

International Regulations

Ozone depleting substances Not applicable
Persistent Organic Pollutants Not applicable
Hazardous Waste Not applicable
The Rotterdam Convention (Prior Informed Consent) Not applicable
International Convention for the Prevention of Pollution from Ships (MARPOL) Not applicable

International Inventories

TSCA Complies
DSL/NDSL Complies
European Union Not determined
ENCS Not determined
IECSC Not determined
KECL Complies
PICCS Complies
AICS Complies

Legend
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.
<table>
<thead>
<tr>
<th>Petroleum distillates, solvent-refined heavy paraffinic</th>
<th></th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum distillates, solvent-refined light paraffinic</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Residual oils (petroleum), solvent refined</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy naphthenic</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated heavy paraffinic</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Petroleum distillates, solvent dewaxed heavy paraffinic</td>
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<td>X</td>
</tr>
<tr>
<td>Petroleum distillates, hydrotreated light naphthenic</td>
<td>X</td>
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</tr>
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</table>

U.S. EPA Label Information
EPA Pesticide Registration Number  Not applicable

### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Hazards</th>
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<tr>
<td></td>
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<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
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</table>

Prepared By
Product Stewardship
23 British American Blvd.
Latham, NY 12110
1-800-572-6501

Issuing Date 15-Mar-2018
Revision Date 15-Mar-2018
Revision Note Initial Release.

General Disclaimer
The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

*End of Safety Data Sheet*