SAFETY DATA SHEET

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 N1.0

Other means of identification

UN-Number UN2247

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. +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>Hazard</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Inhalation Toxicity - Vapors</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 Systemic Toxicity (Single Exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Aspiration Toxicity</td>
<td>Category 1</td>
</tr>
<tr>
<td>Flammable liquids</td>
<td>Category 3</td>
</tr>
</tbody>
</table>

Label Elements

Signal Word

Danger
Hazard Statements
Harmful if inhaled
Causes skin irritation
Causes serious eye irritation
May cause drowsiness or dizziness
May be fatal if swallowed and enters airways
Flammable liquid and vapor.

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.
• Wash face, hands and any exposed skin thoroughly after handling.
• 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.

General Advice
• None

Eyes
• 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.

Skin
• If skin irritation occurs: Get medical advice/attention.
• IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
• Wash contaminated clothing before reuse.

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.

Fire
• In case of fire: Use CO2, dry chemical, or foam for extinction.

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

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.

Unknown acute toxicity 5.5% of the mixture consists of ingredient(s) of unknown toxicity.

### 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>Decane</td>
<td>124-18-5</td>
<td>&gt;94.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3-Methylnonane</td>
<td>5911-04-6</td>
<td>&lt;5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5-Methylnonane</td>
<td>15869-85-9</td>
<td>&lt;5</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Description of necessary first-aid measures**

**Eye Contact**
Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Obtain medical attention if irritation persists.

**Skin Contact**
Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops and persists.

**Inhalation**
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Artificial respiration and/or oxygen may be necessary. Get medical attention immediately if symptoms occur. If breathing has stopped, contact emergency medical services immediately.

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

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

**Most Important Symptoms/Effects**

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

**Notes to Physician**
Aspiration hazard.

### 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media**

**Unsuitable Extinguishing Media**
CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific Hazards Arising from the Chemical**

**Hazardous Combustion Products**
Carbon oxides.

**Explosion Data**

**Sensitivity to Mechanical Impact**
None.

**Sensitivity to Static Discharge**
Yes.

**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. Remove all sources of ignition.

Environmental Precautions
Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional Ecological Information.

Methods and materials for containment and cleaning up

Methods for Containment
Dike to collect large liquid spills. 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. Keep away from open flames, hot surfaces and sources of ignition.

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. Strong acids.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

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. If splashes are likely to occur, wear: Tightly fitting safety goggles.

Skin and Body Protection
Wear fire/flame resistant/retardant 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
When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.
9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

|----------------|--------|------------|------------------|------------|----------------|--------------------------|

### Flammable Properties

Flammable.

### Explosive Properties

No data available

### Oxidizing Properties

No data available

### Other information

VOC Content (%)

No data available

<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>171 °C</td>
<td>None known</td>
</tr>
<tr>
<td>Flash Point</td>
<td>44 °C</td>
<td>Closed 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></td>
<td></td>
</tr>
<tr>
<td>upper flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>lower flammability limit</td>
<td>No data available</td>
<td>None known</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>0.73</td>
<td>at 15 °C</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble in water.</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>Soluble in solvents.</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Viscosity</td>
<td>1 cSt @ 40°C</td>
<td>None known</td>
</tr>
</tbody>
</table>

### Flammable Properties

Flammable.

### Explosive Properties

No data available

### Oxidizing Properties

No data available

### Other information

VOC Content (%)

No data available

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

Ignitions sources - heat, sparks and open flames.

Incompatible materials

Strong oxidizing agents. Strong acids.

Hazardous decomposition products

Carbon oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation

May cause irritation of respiratory tract. Harmful by inhalation. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

Eye Contact

Expected to be an irritant based on components.
Skin Contact
Expected to be an irritant based on components. Prolonged skin contact may defat the skin and produce dermatitis.

Ingestion
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. May cause central nervous system depression. Aspiration may cause pulmonary edema and pneumonitis.

**Numerical measures of toxicity - Product**

<table>
<thead>
<tr>
<th>Unknown acute toxicity</th>
<th>5.5% of the mixture consists of ingredient(s) of unknown toxicity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The following values are calculated based on chapter 3.1 of the GHS document:</td>
<td></td>
</tr>
<tr>
<td>LD50 Oral</td>
<td>&gt;5000 mg/kg; Acute toxicity estimate</td>
</tr>
<tr>
<td>LD50 Dermal</td>
<td>&gt;2000 mg/kg; Acute toxicity estimate</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
</tr>
<tr>
<td>Vapor</td>
<td>12 mg/L; Acute toxicity estimate</td>
</tr>
</tbody>
</table>

**Symptoms related to the physical, chemical and toxicological characteristics**

**Symptoms**
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Delayed and immediate effects and also chronic effects from short and long term exposure**

<table>
<thead>
<tr>
<th>Respiratory or Skin Sensitization</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germ Cell Mutagenicity</td>
<td>No information available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Contains no ingredients above reportable quantities listed as a carcinogen.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reproductive Toxicity</th>
<th>No information available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOT - single exposure</td>
<td>May cause drowsiness or dizziness</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>See listed target organs below.</td>
</tr>
</tbody>
</table>

**Chronic Toxicity**
Repeated or prolonged exposure may cause central nervous system damage. May cause central nervous system depression with nausea, headache, dizziness, vomiting, and incoordination.

**Target Organ Effects**

**Neurological Effects**
Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. Repeated or prolonged overexposure to solvents may cause permanent damage to the nervous system.

**Aspiration Hazard**
May be fatal if swallowed and enters airways.

### 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>Decane 124-18-5</td>
<td>EC50 24 h: = 0.043 mg/L (Chlorella vulgaris)</td>
<td></td>
<td></td>
<td>EC50 48 h: = 18 mg/L (Daphnia magna)</td>
</tr>
</tbody>
</table>

**Persistence and Degradability**
Expected to be biodegradable

**Bioaccumulation**
No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Log Pow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decane</td>
<td>5.1</td>
</tr>
</tbody>
</table>

**Mobility**
No information available.

**Other Adverse Effects**
No information available.
13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods
This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261). Dispose of in accordance with federal, state, and local regulations.

Contaminated Packaging
Do not re-use empty containers.

US EPA Waste Number
D001

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
- UN-Number: UN2247
- Proper shipping name: n-Decane
- Hazard Class: 3
- Packing Group: III
- Description: UN2247, n-Decane, 3, III
- Emergency Response Guide Number: 128

TDG
- UN-Number: UN2247
- Proper Shipping Name: n-Decane
- Hazard Class: 3
- Packing Group: III
- Description: UN2247, n-Decane, 3, III

MEX
- UN-Number: UN2247
- Proper Shipping Name: n-Decane
- Hazard Class: 3
- Packing Group: III
- Description: UN2247, n-Decane, 3, III

IATA
- UN-Number: UN2247
- Proper Shipping Name: n-Decane
- Hazard Class: 3
- Packing Group: III
- ERG Code: 3L
- Description: UN2247, n-Decane, 3, III

IMDG/IMO
- UN-Number: UN2247
- Proper Shipping Name: n-Decane
- Hazard Class: 3
- Packing Group: III
- EmS No.: F-E, S-E
- Description: UN2247, n-Decane, 3, III, (44°C c.c.)

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)

International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Not determined</td>
</tr>
<tr>
<td>DSL</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS</td>
<td>Not determined</td>
</tr>
<tr>
<td>ELINCS</td>
<td>Not determined</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Not determined</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies Not determined</td>
</tr>
<tr>
<td>PICCS</td>
<td>Not determined</td>
</tr>
<tr>
<td>AICS</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
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

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Yes</td>
</tr>
<tr>
<td>Sudden Release of Pressure Hazard</td>
<td>No</td>
</tr>
<tr>
<td>Reactive Hazard</td>
<td>No</td>
</tr>
</tbody>
</table>

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>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
<th>Illinois</th>
<th>Rhode Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decane</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION
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