1. PRODUCT AND COMPANY IDENTIFICATION

- **Product name**: Menthol Crystals
- **Botanical name**: Mentha arvensis
- **INCI name**: Menthol
- **CAS #**: 1490-04-6 / 2216-51-5 / 89-78-1 / 15356-70-4
- **Country of Origin**: India
- **EINECS #**: 216-074-4 / 218-690-9 / 201-939-0 / 239-388-3
- **Product use**: Domestic and Industrial
- **Supplier**: New Directions Aromatics Inc.
- **Address**: 6781 Columbus Road, Mississauga, Ontario, CANADA L5T 2G9
- **Fax**: 905-362-1926
- **Telephone number**: 905-362-1915
- **Emergency phone number**: (613)-996-6666 CANUTEC 24 HOUR EMERGENCY

2. HAZARDS IDENTIFICATION

**Emergency Overview**

**GHS Classification**

- Skin Corrosion / Irritation - Category 2
- Serious eye damage/eye irritation - Category 2B

**GHS Label elements, including precautionary statements**

![Warning Symbol]

**Signal**: Warning

**Hazard statement(s)**

- **H315**: Causes skin irritation.
- **H319**: Causes serious eye irritation.

**Precautionary statement(s)**

- **P264**: Wash skin thoroughly after handling.
- **P280**: Wear protective gloves/protective clothing/eye protection/face protection.
- **P302+P352**: IF ON SKIN: Wash with plenty of soap and water.
- **P305+P351+P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
- **P321**: Specific treatment (see section 4 on this label).
- **P332+P313**: If skin irritation occurs: Get medical advice/attention.
If eye irritation persists get medical advice/attention.

Take off contaminated clothing.

### 3. COMPOSITION / INFORMATION INGREDIENTS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>CAS NO</th>
<th>EC NO</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menthol</td>
<td>1490-04-6 / 2216-51-5 / 89-78-1 / 15356-70-4</td>
<td>216-074-4 / 218-690-9 / 201-939-0 / 239-388-3</td>
<td>100%</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Eye contact**
Immediately flush eyes with plenty of cool water for at least 15 minutes. Get medical attention if irritation occurs.

**Skin contact**
Remove contaminated clothing. Wash area with soap and water. If irritation occurs, get medical attention.

**Inhalation**
If inhaled, removed to fresh air. Get medical attention if symptoms appear.

**Ingestion**
Seek medical attention or contact local poison control center.

### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media**

**Special protective equipment and precautions for fire-fighters**
Wear proper protective equipment. Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.

**Special hazards arising from the substance or its combustible products**
Hazardous decomposition products may be formed at extreme heat or if burned.

**Resulting gases**
Carbon oxides.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures.**
Equip clean crew with proper protection. Respiratory protection equipment may be necessary.

**Environmental precautions**
Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

**Methods and materials for containment and cleaning up**
Clean up any spills as soon as possible, using an absorbent material to collect it. Use suitable disposal containers.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
No direct lighting. No smoking. Ensure prompt removal from eyes, skin and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

**Conditions for safe storage, including any incompatibilities**
Provide local exhaust or general room ventilation to minimize dust and/or vapour concentrations. Keep container closed when not in use.
8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Eyes**
Use tightly sealed goggles.

**Skin**
Use protective gloves (Neoprene gloves Nitrile rubber, NBR). The glove material has to be impermeable and resistant to the product/substance/preparation. Chemical and oil resistant clothing is recommended.

**Respiratory**
Half-face filter respirator: Type P filter material. European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

**Exposure limit values**
I-Menthol
DNEL (Workers) - Inhalation, Long-term, Local effects - 52.5 (mg/m³)
DNEL (Workers) - Inhalation, Long-term, Systemic effects - 52.5 (mg/m³)
DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless to pale yellow translucent crystals.</td>
</tr>
<tr>
<td>Odor</td>
<td>Peppermint–like odor.</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
<td>41 – 44 ºC (MP)</td>
</tr>
<tr>
<td>Initial b.p and boiling range</td>
<td>216 ºC</td>
</tr>
<tr>
<td>Flash point</td>
<td>95 ºC</td>
</tr>
<tr>
<td>Relative density</td>
<td>0.85 - 0.86 g/cm³ @ 20°C</td>
</tr>
<tr>
<td>Solubility (ies)</td>
<td>Soluble in alcohol and oils. Insoluble in water.</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>3.15 log POW @ 25°C</td>
</tr>
<tr>
<td>Optical rotation</td>
<td>-51° to -45°</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

**Reactivity**
This material presents no significant reactivity hazard.

**Chemical stability**
Chemically stable.

**Possibility of hazardous reactions**
Hazardous polymerization will not occur.

**Conditions to avoid**
Avoid sparks, flame and other heat sources.

**Incompatible materials**
Strong oxidizing agents.

**Hazardous decomposition products**
Carbon Oxides.

11. TOXICOLOGICAL INFORMATION
**Acute toxicity**
Not available.

**Inhalation**
Inhalation of high concentrations of vapor may result in irritation of eyes, nose and throat, headache, nausea, and dizziness.

**Skin contact**
Adverse skin effects should be prevented by normal care and personal hygiene.

**Eye contact**
Slightly hazardous in case of skin contact (irritant).
Possible irritation should be prevented by wearing safety glasses.

**Ingestion**
May be fatal if ingested.

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

\[
EC_{50} \text{ (static)} = 237 \text{ mg/L (activated sludge)}; \quad EC_{50} \text{ (48hr) (static)} = 26.6 \text{ g/L (Daphnia magna)}; \quad EC_{50} \text{ (72hr) = 21.4 mg/L (Desmodesmus subspicatus)}; \quad LC_{50} \text{ (96hr) (static) = 15.6 mg/L (Danio rerio)}
\]

**Persistence and degradability**
Biodegradation in water: readily biodegradable. Biodegradation in soil: According to REACH REGULATION No 1907/2006 (EC), Official Journal of the European Union, Annex IX column 2, the study does not need to be conducted as L-menthol is readily biodegradable.

**Bio - accumulative potential**
Not Bioaccumulative.

**Mobility in soil**
Adsorption coefficient: Koc (estimated from MCI): 88.15 L/kg; Koc (estimated from Log Kow): 149 L/kg

### 13. DISPOSAL CONSIDERATION
Dispose of product in accordance with local, state or provincial and federal regulations. Check with local municipal authority to ensure compliance.

### 14. TRANSPORT INFORMATION

**US DOT Shipping Description (Land)**
Not regulated

**IMO-IMDG Shipping Description (Sea)**
Not regulated

**IATA Shipping Description (Air)**
Not regulated

### 15. REGULATORY INFORMATION

**DSL / NDSL**
Listed.

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

### 16. OTHER INFORMATION

Revision date : July 3, 2018
Disclaimer & Caution

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