MATERIAL SAFETY DATA SHEET
MENTHOL CRYSTALS

1. PRODUCT NAME AND COMPANY IDENTIFICATION

Product Name: MENTHOL CRYSTALS – ORGANIC, BOLD
Product Use: Personal Care Formulations
Company Name: Natural Sourcing
Company Address: 341 Christian Street, Oxford, CT 06478, USA
Date Issued: 1/1/2008
Emergency Telephone Number: Chemtrec Tel: (800) 262-8200

2. COMPOSITION/INGREDIENT INFORMATION

Chemical Identity: Menthol, Hexahydrothymol; (1Alpha, 2Beta, 5Alpha)-5-methyl-2-(1-methylyhyle) cyclohexanol
Formula: \( \text{C}_{10}\text{H}_{20}\text{O} \)
Molecular Weight: 156.3 g/mole
Hazardous Components: None
CAS #: 2216-51-5

3. HAZARDS IDENTIFICATION

DANGER! MAY BE FATAL IF SWALLOWED. HARMFUL IF INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY CAUSE ALLERGIC REACTION. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. KEEP OUT OF REACH OF CHILDREN.

Routes of Entry:
- Eyes
- Skin
- Ingestion
- Inhalation

Eye Contact: Irritant due to its phenolic character. Can cause reddening and tearing.
Skin Contact: Mild irritant but may cause pain or inflammation on sensitive areas of the skin.
Ingestion: TOXIC: If ingested, may cause nausea, vomiting, pain, drowsiness, convulsions, coma or death.
Inhalation: Breathing of vapors can irritate mucous membranes/respiratory system.

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if irritation persists.
Skin: Immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation persists.
**Ingestion:** Rinse mouth and seek medical attention immediately. Do NOT induce vomiting. Loosen tight clothing such as collars, ties, belts etc. If the victim is not breathing, perform mouth to mouth resuscitation.

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

**Medical Conditions Generally Aggravated by Exposure:** Persons with pre-existing skin disorders, eye problems or impaired respiratory function may be more susceptible to the effects of this substance.

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**5. FIRE FIGHTING MEASURES**

<table>
<thead>
<tr>
<th>Flash Point (Method Used):</th>
<th>93°C (199.4°F) Closed Cup</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEL:</td>
<td>Not Established</td>
</tr>
<tr>
<td>UEL:</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

**Hazardous Combustion Products:** When heated to decomposition, produces carbon oxides and acrid smoke & fumes.

**Conditions Under Which Flammability Could Occur:** May be combustible at high temperatures.

**Extinguishing Media:**
- Dry Chemical
- Carbon Dioxide
- Foam

**Note:** Do not use water except to cool containers.

**Special Firefighting Procedures:**
- Use positive pressure, self-contained breathing apparatus.
- Cool fire exposed containers with water spray. Do not use water to extinguish burning materials.
- Spray extinguishing media directly at the base of the flames.

**Unusual Fire & Explosion Hazards:** Combustible

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**6. ACCIDENTAL RELEASE MEASURES (STEPS FOR SPILLS)**

**Personal Protection:** Wear suitable protective clothing.

**Environmental Protection:** Notify authorities if large amounts of product enters sewer.

**Methods for Cleaning Up:**
- Sweep up solid material. Absorb liquid material onto an inert, absorbent substrate and sweep up.
- Place contaminated waste materials in a closed metal waste container.
- Wash area with soap and water.

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**7. HANDLING AND STORAGE**

**Handling**

**Safe Handling:**
- Wear protective eyewear, clothing and respiratory devices as needed.
- Keep away from oxidizing agents, excessive heat and sources of ignition.

**Storage**

**Requirements for Storage Areas and Containers:**
- Store in a cool, dry location, in a sealed container in a well ventilated area.
- Do not expose to temperatures above 35° C.
8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls: None
Eye: OSHA approved safety glasses should be worn. Maintain eye wash fountain and quick-drench facilities in work area.
Skin/Body: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory: Use adequate ventilation or NIOSH-approved respiratory devices.
Ventilation: Handle in well ventilated areas.
Other: Evaluate need based on application.
Work/Hygiene Practice: Follow good manufacturing practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid crystalline
Color: White/Clear
Odor: Characteristic of menthol, camphorous
Specific Gravity (H2O = 1): 0.89
Vapor Pressure (mm Hg.): Not available
Vapor Density (AIR = 1): 5.38
Flash Point: 93°C; 199.4°F
Boiling Point: 212°C; 413.6°F
Melting Point: 42°C; 107.6°F
Solubility in Water: Insoluble

10. STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: Excessive heat
Incompatibility (Materials to Avoid): Avoid strong oxidizers
Hazardous Decomposition or Byproducts: Forms CO and/or CO2 upon burning
Hazardous Polymerization: Will Not Occur

11. TOXICOLOGICAL INFORMATION

Toxicity to Animals: Acute Oral LD50: 800 mg/kg [Cat]
Acute Dermal LD50: 5001 mg/kg [Rabbit]
Chronic Effects on Humans: Not Available
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation. Slightly hazardous in case skin contact (permeator).

12. ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence and Degradability: No information available on persistence/degradability for this product.
Bioaccumulative Potential: No information available on bioaccumulation for this product.
Products of Degradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of Products of Degradation: The products of degradation are more toxic.
### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods:** Do not put into sewer lines. Dispose of according to local, state and federal regulations.

### 14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th><strong>DOT Classification:</strong></th>
<th>Not regulated</th>
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</thead>
<tbody>
<tr>
<td><strong>Class/Division:</strong></td>
<td>Not restricted</td>
</tr>
<tr>
<td><strong>Proper Shipping Name:</strong></td>
<td>Menthol Crystals</td>
</tr>
<tr>
<td><strong>Label:</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Packing Group:</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>ID Number:</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>Hazard:</strong></td>
<td>NA</td>
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### 15. REGULATORY INFORMATION

<table>
<thead>
<tr>
<th><strong>WHMIS Classification:</strong></th>
<th>D2B: Material causing other toxic effects (TOXIC).</th>
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<tbody>
<tr>
<td><strong>DSCL (EEC):</strong></td>
<td>R36/38 – Irritating to eyes and skin</td>
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<tr>
<td><strong>HMIS (USA):</strong></td>
<td>Health: 2 Fire: 2 Reactivity: 0 Protection: E</td>
</tr>
<tr>
<td><strong>Protective Equipment:</strong></td>
<td>Gloves, Lab coat, Dust respirator (approved/certified), Splash goggles</td>
</tr>
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### 16. ADDITIONAL INFORMATION

This information is provided for documentation purposes only.

The complete range of conditions or methods of use are beyond our control therefore we do not assume any responsibility and expressly disclaim any liability for any use of this product. Information contained herein is believed to be true and accurate however, all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state, and local laws and local regulations remains the responsibility of the user.

This safety sheet cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers.