SAFETY DATA SHEET

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

Product Name: Benzyl Cabazate
Synonyms: BzCz
Formula: C₈H₁₀N₂O₂
Recommended Use: chemical intermediate.

Contact Manufacturer:
VanDeMark Chemical Inc.
1 North Transit Road
Lockport, NY 14094, USA
Telephone: 716-433-6764

Emergency Telephone Number
CHEMTREC: + 1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature of the preparation: Organic compound.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EINECS-No.</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl Cabazate</td>
<td>226-230-3</td>
<td>5331-43-1</td>
<td>&gt; 99%</td>
<td>Xi,R36</td>
</tr>
</tbody>
</table>

For the full text of the R phrases mentioned in this Section, see Section 16

3. HAZARDS IDENTIFICATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Classification:
Xi,R36
Xi - Irritant.

Most Important Hazards:
Irritating to eyes.
Ingestion may be harmful

Physico-chemical properties: Heating will cause decomposition and release toxic/corrosive compounds.

Properties Affecting Health: Inhalation of dust in high concentration may cause irritation of respiratory system.

4. FIRST AID MEASURES

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Ingestion                     Do NOT induce vomiting. If conscious, give 2 glasses of water. Consult a physician.

Inhalation                    Move to fresh air. If symptoms persist, call a physician.

Notes to physician           Treat symptomatically.

Protection of first-aiders    Use personal protective equipment.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media
All extinguishing media are suitable.

### Extinguishing media which must not be used for safety reasons
No information available.

### Specific hazards
Thermal decomposition can lead to release of irritating gases and vapours.

### Special protective equipment for firefighters
As in any fire, wear self-contained breathing apparatus and full protective gear.

## 6. ACCIDENTAL RELEASE MEASURES

### Environmental precautions
Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

### Personal precautions
Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

### Methods for cleaning up
Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Clean contaminated surface thoroughly.

### Methods for Containment
Prevent further leakage or spillage if safe to do so. Cover powder spill with plastic sheet or tarp to minimize spreading. Prevent dust cloud.

### Other information
Refer to protective measures listed in Sections 7 and 8.

## 7. HANDLING AND STORAGE

### Handling
Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe dust. Avoid contact with skin and eyes.

### Storage
Keep container tightly closed. Keep away from heat. Keep in properly labelled containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits
The product does not contain any hazardous materials with occupational exposure limits established.

### Occupational Exposure Controls

#### Engineering measures
Showers, eyewash stations, and ventilation systems.
Personal protective equipment

- **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.

- **Eye protection**: Tightly fitting safety goggles

- **Skin and body protection**: Long sleeved clothing. Impervious gloves.

- **Hand protection**: Protective gloves

**Hygiene measures**: When using, do not eat, drink or smoke. Remove and wash contaminated clothing before re-use. Regular cleaning of equipment, work area and clothing.

**Environmental exposure controls**: Do not allow material to contaminate ground water system.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td>white crystalline</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Odourless</td>
</tr>
<tr>
<td><strong>Physical state</strong></td>
<td>Solid</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>NA</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>110°C</td>
</tr>
<tr>
<td><strong>Autoignition temperature</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Boiling point/range</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Melting point/range</strong></td>
<td>63 – 65°C (145 – 149°F)</td>
</tr>
<tr>
<td><strong>Flammability Limits in Air</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Specific Gravity</strong></td>
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</tr>
<tr>
<td><strong>Water solubility</strong></td>
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<tr>
<td><strong>Solubility</strong></td>
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</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
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</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
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<tr>
<td><strong>Vapour density</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>VOC content</strong></td>
<td>No information available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No information available.</td>
</tr>
</tbody>
</table>

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### 10. STABILITY AND REACTIVITY

- **Stability**: Stable at normal temperatures and storage conditions.

- **Conditions to Avoid**: Heat, flames and sparks. Extremes of temperature and direct sunlight. Exposure to air or moisture over prolonged periods.

- **Materials to Avoid**: Strong oxidizing agents.

- **Hazardous Decomposition Products**: Thermal decomposition can lead to release of irritating gases and vapours. Carbon monoxide, carbon dioxide.

- **Hazardous Polymerisation**: Hazardous polymerization does not occur.

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### 11. TOXICOLOGICAL INFORMATION

- **Acute Toxicity**

- **Product Information**

*according to EC Directive 2001/58/EC*
Eye Irritation: Rabbit, severely irritable.

Chronic Toxicity

28 days, oral; NOEL: 4mg/kg (rat)

In a 28 day study in rats, irreversible neurotoxic effects were observed at 100 mg/kg/d

Irritation Irritating to eyes. Inhalation of dust in high concentration may cause irritation of respiratory system.

Reproductive Toxicity Did not produce genetic damage in bacterial or mammalian cell with turks.

Developmental Toxicity No information available.

Target Organ Effects Eyes. Respiratory system, blood, liver.

12. ECOLOGICAL INFORMATION

Aquatic Ecotoxicity

24 hour LC50 (fathead minnows): > 10ppm

48 hour EC50 (daphnia Magna): > 0.5ppm

13. DISPOSAL CONSIDERATIONS

Waste from residues/ unused products Waste is classified as hazardous. Should not be released into the environment. Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

EWC waste disposal No 16 05 60

Other information According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

14. TRANSPORT INFORMATION

IMDG/IMO not regulated

RID not regulated

ADR not regulated

ICAO not regulated

ICAO/ATA not regulated

due to EC Directive 2001/58/EC
15. REGULATORY INFORMATION

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Labeling

Contains  Benzyl Carbazate
EU Labeling  226-230-3
Symbol(s)  Xi - Irritant.

Xi

R-phrase(s)
R36 - Irritating to eyes.

S-phrase(s)
S25 - Avoid contact with eyes
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S60 - This material and its container must be disposed of as hazardous waste.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

International Inventories

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>China</th>
<th>AICS</th>
<th>KECL</th>
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</table>

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2
R36 - Irritating to eyes.

Issuing Date  06-Feb-2009

Revision Date

Revision Note  No information available

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

according to EC Directive 2001/58/EC