Material Safety Data Sheet

Section I. Product Identification and Uses

Product name: BENZYL ALCOHOL
Chemical formula: C6H5CH2OH
Synonyms: Benzenemethanol, Phenylmethyl alcohol, Phenylcarbinol, AC-1105, AC-1105P, AC-1105T, 11960, 11972, M-0480
Supplier: Anachemia Canada.
Address: 255 Norman, Lachine (Montreal), Que H8R 1A3

Material uses: For laboratory use only.

Section II. Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>%</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) BENZYL ALCOHOL</td>
<td>100-51-6</td>
<td>&gt;99</td>
<td>Not established by ACGIH</td>
</tr>
</tbody>
</table>

Toxicity values of the hazardous ingredients:

- **BENZYL ALCOHOL:**
  - ORAL (LD50): Acute: 1230 mg/kg (Rat), 1040 mg/kg (Rabbit), 100 mg/kg (Bird), 1360 mg/kg (Mouse)
  - DERMAL (LD50): Acute: 2000 mg/kg (Rabbit)
Section III. Physical Data

| pH (1% soln/water)                          | Not available.                        |
| Odor threshold                              | Not available.                        |
| Percent volatile                            | >99%                                  |
| Freezing point                              | -15°C                                 |
| Boiling point                               | 205°C                                 |
| Specific gravity                            | 1.04 @ 20°C (Water = 1)               |
| Vapor density                               | 3.7 (Air = 1)                         |
| Vapor pressure                              | 0.15 (1) mm Hg @ 25°C (58°C)          |
| Water/oil dist. coeff.                      | Not available.                        |
| Evaporation rate                            | Not available.                        |
| Solubility                                  | Partially soluble in cold water.      |

Section IV. Fire and Explosion Data

| Flash point                                 | CLOSED CUP: 93°C                      |
| Flammable limits                            | LOWER: 1.5%                           |
| Auto-ignition temperature                   | 436°C                                 |
| Fire degradation products                   | Oxides of carbon (CO, CO2).           |
| Fire extinguishing procedures               | Use DRY chemical, carbon dioxide, alcohol-resistant foam or water spray. Water may be ineffective to extinguish fires. Wear adequate personal protection to prevent contact with material or its combustion products. Self contained breathing apparatus with a full facepiece operated in a pressure demand or other positive pressure mode. Cool containing vessels with flooding quantities of water until well after fire is out. |
| Fire and Explosion Hazards                  | Vapors formed from this product may travel or be moved by air currents and ignited by pilot lights, other flames, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from handling point. Contact with oxidizers may cause fire and/or explosion. Container explosion may occur under fire conditions or when heated. May be sensitive to static discharge, particularly at elevated temperatures. The sensitivity to impact is not available. Emits toxic fumes under fire conditions. |

Section V. Toxicological Properties

| Routes of entry                             | Inhalation and ingestion. Skin contact. Skin absorption. Eye contact. |
| Effects of Acute Exposure                   | Harmful by ingestion, inhalation, or skin absorption. Causes severe irritation. Target organs: central nervous system, eyes, skin, lungs, respiratory system. |
| Eye                                        | Causes severe irritation, redness, tearing. May cause severe burns and loss of vision. IRRITATION: EYE-RABBIT 750 ug SEVERE. |
| Skin                                       | Causes skin irritation. Repeated or prolonged skin contact may cause dermatitis. Readily absorbed through skin. IRRITATION: SKIN-RABBIT 100 mg/24H MODERATE. |
| Inhalation                                 | Material is irritating to mucous membranes and upper respiratory tract. May cause central nervous system depression (headache, nausea, vomiting, dizziness, drowsiness, incoordination, etc...), coughing, narcosis, dyspnea, and pulmonary edema which can be fatal. |
| Ingestation                                | Causes gastrointestinal irritation. Can cause central nervous system depression, coughing, difficulty in breathing, nausea, vomiting, dizziness, diarrhea, abdominal pain, convulsions and possibly death. |
Section V. Toxicological Properties

**Effects of Chronic Overexposure**
Repeated or prolonged skin contact may cause dermatitis. Carcinogenic effects: Not available. Mutagenic effects: Not available. Teratogenic effects: Not available. Toxicity of the product to the reproductive system: Not available. To the best of our knowledge, the chemical, physical, and toxicity of this substance has not been fully investigated.

Section VI. First Aid Measures

**Eye contact**
Immediately flush eyes with copious quantities of water for at least 15 minutes holding lids apart to ensure flushing of the entire surface. Call a physician.

**Skin contact**
Immediately flush skin with plenty of water and soap for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reusing.

**Inhalation**
Remove patient to fresh air. Administer approved oxygen supply if breathing is difficult. Administer artificial respiration or CPR if breathing has ceased. Call a physician. Keep patient warm and quiet.

**Ingestion**
DO NOT induce vomiting. If conscious, wash out mouth with water. Have conscious person drink several glasses of water to dilute. Call a physician or transport to an emergency facility. Never give anything by mouth to an unconscious or convulsing person.

Section VII. Reactivity Data

**Stability**
Stable. Conditions to avoid: High temperatures, sparks, open flames and all other sources of ignition, contamination.

**Hazardous decomp. products**
Not available.

**Incompatibility**
Acids, oxidizing agents, alkalies, chlorine, aluminum, hydrogen bromide, iron(II) salts, acetaldehyde, ethylene oxide, hexamethylene diisocyanate, hydrogen peroxide, sulfuric acid, hypochlorous acid, disocyanates, isocyanates, lithium aluminum hydride, nitrogen tetroxide, perchloric acid, barium perchlorate, diethyl aluminum bromide, tri-isobutyl aluminum, permonosulfuric acid. May attack certain types of plastic.

**Reaction Products**
Benzyl alcohol containing 1.4% hydrogen bromide and 1.1% of an iron(II) salt polymerized exothermally when heated above 100°C.
### Section VIII. Preventive Measures

**Protective Clothing in case of spill and leak**

| Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves. |

**Spill and leak**

| Evacuate the area. Eliminate all sources of ignition. Absorb on sand or vermiculite and place in a closed container for disposal. Ventilate area and wash spill site after material pick up is complete. DO NOT empty into drains. DO NOT touch damaged container or spilled material. |

**Waste disposal**

| According to all applicable regulations. May be harmful to aquatic life. Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. |

**Storage and Handling**

| Store in a cool place away from heated areas, sparks, and flame. Store in a well ventilated area. Store away from incompatible materials. Do not add any other material to the container. Do not wash down the drain. Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. Keep container tightly closed and dry. Manipulate in a well ventilated area or under an adequate fume hood. Product is highly hygroscopic. Take precautionary measures against electrostatic discharges. Use explosion proof equipment. Use non-sparking tools. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred. Empty containers may contain a hazardous residue. Handle and open container with care. Take off immediately all contaminated clothing. This product must be manipulated by qualified personnel. Do not get in eyes, on skin, or on clothing. Wash well after use. In accordance with good storage and handling practices. Do not allow smoking and food consumption while handling. In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible.). Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. |

### Section IX. Protective Measures

**Protective clothing**

| Splash goggles. Impervious (natural rubber) gloves, apron, coveralls, and/or other resistant protective clothing. Sufficient to protect skin. A OSHA/MSHA jointly approved respirator is advised in the absence of proper environmental controls. If more than TLV, do not breathe vapor. Wear self-contained breathing apparatus. Do not wear contact lenses. Make eye bath and emergency shower available. Ensure that eyewash station and safety shower is proximal to the work-station location. |

**Engineering controls**

| Local mechanical exhaust ventilation capable of minimizing emissions at the point of use. Do not use in unventilated spaces. |

### Section X. Other Information

**Special Precautions or comments**

| Harmful liquid! Severe irritant! Risk of serious damage to eyes. Do not breathe vapor. Avoid all contact with the product. Avoid prolonged or repeated exposure. Manipulate in a well ventilated area or under an adequate fume hood. Keep away from heat, sparks and flame. Handle and open container with care. Container should be opened only by a technically qualified person. | RTECS NO: DN3150000 (Benzyl alcohol). |

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**Prepared by MSDS Department/Département de F.S.**

**Validated 12-Jan-2011**

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While the company believes the data set forth herein are accurate as of the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration, investigation and verification.