Material Safety Data Sheet

NR07469
ISOPAR M

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Id: NR07469
Product Name: ISOPAR M
Synonyms: None
Chemical Family: None Known
Application: Solvent.

Distributed By:
Univar Canada Ltd.
9800 Van Horne Way
Richmond, BC
V6X 1W5

Prepared By: The Environment, Health and Safety Department of Univar Canada Ltd.
Preparation date of MSDS: 23/Jan/2013
Telephone number of preparer: 1-866-686-4827

24-Hour Emergency Telephone Number (CANUTEC): (613) 996-6666

2. COMPOSITION/ INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Percentage (W/W)</th>
<th>LD50s and LC50s Route &amp; Species:</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Reportable Hazardous Substance(s) or Complex Substance(s) Not available</td>
<td>100</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Note: No additional remark.

3. HAZARDS IDENTIFICATION

Potential Acute Health Effects:
Eye Contact: May cause mild, short-lasting discomfort to eyes.
Skin Contact: Repeated exposure may cause skin dryness or cracking.
Inhalation: Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.
Ingestion: May cause lung damage if swallowed.
4. FIRST AID MEASURES

**Eye Contact:** In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

**Skin Contact:** Wash thoroughly with soap and water. If irritation persists or signs of toxicity occur, seek medical attention.

**Inhalation:** Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

**Ingestion:** Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Seek immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.

**Notes to Physician:** Treatment based on sound judgment of physician and individual reactions of patient.

5. FIRE FIGHTING MEASURES

**Flash Point:** >94 °C / >200 °F

**Flash Point Method:** ASTM D93

**Autoignition Temperature:** >200°C / >392°F

**Flammable Limits in Air (%):** Lower: 0.6% Upper: 4.9%

**Extinguishing Media:** Use DRY chemicals, CO2, alcohol foam or water spray.

**Special Exposure Hazards:** Do not use a solid stream of water. Use water spray to cool fire-exposed containers and structures. Isolate and restrict area access. Do not allow runoff to enter waterways or sewer.

**Hazardous Decomposition/Combustion Materials (under fire conditions):** Oxides of carbon. Smoke. Toxic fumes.

**Special Protective Equipment:** Fire fighters should wear full protective clothing, including self-contained breathing equipment.

**NFPA RATINGS FOR THIS PRODUCT ARE:** HEALTH 1, FLAMMABILITY 1, INSTABILITY 0

**HMIS RATINGS FOR THIS PRODUCT ARE:** HEALTH 1, FLAMMABILITY 1, REACTIVITY 0

6. ACCIDENTAL RELEASE MEASURES

**Personal Precautionary Measures:** Wear appropriate protective equipment.

**Environmental Precautionary Measures:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. Consult local authorities.

**Procedure for Clean Up:** Small spills: soak up with absorbent material and scoop into containers. Large spills : prevent contamination of waterways. Dike and pump into suitable containers. Clean up residual with absorbent material, place in appropriate container and flush with water.

7. HANDLING AND STORAGE

**Handling:** Avoid contact with eyes, skin and clothing. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Handling Temperature: Ambient. Static Accumulator: This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semi conductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semi conductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

**Storage:** The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabeled containers. Store at ambient temperature. Suitable Containers/Packing: Drums; Barges; Tank Cars; Tank Trucks

Suitable Materials and Coatings: Carbon steel; Polyethylene; Polypropylene; Teflon; Stainless steel; Polyester

Unsuitable Materials and Coatings: Polystyrene; Natural rubber; Butyl rubber; Ethylene-propylene-diene monomer (EPDM)
8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls:
Local exhaust ventilation as necessary to maintain exposures to within applicable limits.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: Half-face filter respirator. For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Gloves:
Appropriate chemical resistant gloves should be worn. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials as well as the instructions/specifications provided by the glove supplier.

Skin Protection: Skin contact should be prevented through the use of suitable protective clothing, gloves and footwear, selected for conditions of use and exposure potential. Consideration must be given both to durability as well as permeation resistance.

Eyes: Safety glasses with side shields or chemical goggles.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Exposure Limit - ACGIH</th>
<th>Exposure Limit - OSHA</th>
<th>Immediately Dangerous to Life or Health - IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Reportable Hazardous Substance(s) or Complex Substance(s)</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not Available.</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid.
Color: Clear/ Colorless
Odor: Odorless
pH: Not Available.
Specific Gravity: 0.786
Boiling Point: 218-257°C / 424-495°F
Freezing/Melting Point: -77°C / -107°F
Vapor Pressure: 0.012 kPa (0.09 mmHg) @ 20°C, 0.044 kPa (0.33 mmHg) @ 38°C, 0.137 kPa (1.03 mmHg) @ 55°C
Vapor Density: 6.5 @ 101 kPa (calculated)
% Volatile by Volume: Not Available.
Evaporation Rate: <0.01
Solubility: Negligible in water.
VOCs: Not Available.
Viscosity: 2.57 cSt (2.57 mm2/sec) @ 40°C, 3.57 cSt (3.57 mm2/sec) @ 25°C
Molecular Weight: 188 (calculated)
Other: Not Available.

10. STABILITY AND REACTIVITY

Chemical Stability: Stable.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Avoid contact with heat, sparks, open flame, and static discharge.
Materials to Avoid: Strong oxidizers.
Hazardous Decomposition Products: Material does not decompose at ambient temperatures.
Additional Information:
No additional remark.
11. TOXICOLOGICAL INFORMATION

Principle Routes of Exposure

Ingestion: May cause lung damage if swallowed.

Skin Contact: Repeated exposure may cause skin dryness or cracking.

Inhalation: Negligible hazard at ambient/normal handling temperatures. Based on test data for structurally similar materials.

Eye Contact: May cause mild, short-lasting discomfort to eyes.

Additional Information: For the product itself: Vapor/aerosol concentrations above recommended exposure levels are irritating to the eyes and respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness and other central nervous system effects including death. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Acute Test of Product:
Acute Oral LD50: Not Available.
Acute Dermal LD50: Not Available.
Acute Inhalation LC50: Not Available.

Carcinogenicity:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>IARC - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Reportable Hazardous Substance(s) or Complex Substance(s)</td>
<td>Not listed.</td>
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</table>

Carcinogenicity Comment: No additional information available.

Reproductive Toxicity/ Teratogenicity/ Embryotoxicity/ Mutagenicity: Not Available.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information:

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Ecotoxicity - Fish Species Data</th>
<th>Acute Crustaceans Toxicity</th>
<th>Ecotoxicity - Freshwater Algae Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Reportable Hazardous Substance(s) or Complex Substance(s)</td>
<td>Not Available.</td>
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Other Information: Not expected to demonstrate chronic toxicity to aquatic organisms. Not expected to be harmful to aquatic life. Hydrolysis: Transformation due to hydrolysis not expected to be significant. Photolysis: Transformation due to photolysis not expected to be significant. Atmospheric Oxidation: Expected to degrade rapidly in air.

13. DISPOSAL CONSIDERATIONS

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Empty containers should be recycled or disposed of through an approved waste management facility.

14. TRANSPORT INFORMATION

DOT (U.S.):

DOT Shipping Name: Not Regulated.
DOT Hazardous Class: Not Applicable.
DOT UN Number: Not Applicable.
DOT Packing Group: Not Applicable.
DOT Reportable Quantity (lbs): Not Available.

Note: No additional remark.
14. TRANSPORT INFORMATION

Marine Pollutant: No.

TDG (Canada):
TDG Shipping Name: Not Regulated.
Hazard Class: Not Applicable.
UN Number: Not Applicable.
Packing Group: Not Applicable.
Note: No additional remark.
Marine Pollutant: No.

15. REGULATORY INFORMATION

U.S. TSCA Inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt.

Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

Note: Not available.

U.S. Regulatory Rules

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CERCLA/SARA - Section 302:</th>
<th>SARA (311, 312) Hazard Class:</th>
<th>CERCLA/SARA - Section 313:</th>
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</table>

California Proposition 65: Not Listed.
MA Right to Know List: Not Listed.
New Jersey Right-to-Know List: Not Listed.
Pennsylvania Right to Know List: Not Listed.

WHMIS Hazardous Class:
NON-CONTROLLED
**16. OTHER INFORMATION**

**Additional Information:** This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Disclaimer:**

NOTICE TO READER:
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Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar Sales Office.

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***END OF MSDS***