A. Product Identification

Synonyms: Not Established  
Chemical Name: C9-C11 Isoalkanes  
Chemical Family: Aliphatic hydrocarbon  
Chemical Formula: Mixture  
CAS Reg. No.: 68551-16-6  
Product No.: AP1000

Canadian Inventory Listing Status: NDSL

This product contains ingredients that are NOT listed in the Domestic Substances List (DSL), but ARE listed in the Non-Domestic Substances List (NDSL). Impurities are exempt in accordance with Section 3 of the Canadian Environmental Protection Act (CEPA).

B. Hazardous Components

<table>
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<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>% By Wt.</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
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<tr>
<td>C9-C11 Isoalkanes</td>
<td>68551-16-6</td>
<td>100</td>
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</table>

See Section F, Recommended Exposure Limits.

C. Personal Protection Information

Ventilation: Use adequate ventilation to control concentration below recommended exposure limits.

Respiratory Protection: Not generally required. For concentrations exceeding the recommended exposure limit, use NIOSH approved air purifying respirator.

Eye Protection: Use safety glasses with side shields. For splash protection, use chemical goggles and face shield.
Skin Protection: Avoid unnecessary skin contamination with material. Use gloves resistant to the material being used. (eg. neoprene or Viton).

NOTE: Personal protection information shown in Section C is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

D. Handling and Storage Precautions

Avoid contact with eyes, skin or clothing. Avoid breathing vapors, mist, fume or dust. Do not swallow, may be aspirated into lungs. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Wash thoroughly after handling. Launder contaminated clothing before reuse. Use with adequate ventilation.

Keep away from heat, sparks and flame. Store in well-ventilated area. Store in tightly closed container. Bond and ground during transfer.

E. Reactivity Data

Stability: Stable
Conditions to Avoid: Not Applicable
Incompatibility (Materials to Avoid): Oxygen and strong oxidizing agents

Hazards Polymerization: Will Not Occur
Conditions to Avoid: Not Applicable
Hazardous Decomposition Products: Carbon oxides formed when burned.

F. Health Hazard Data

Recommended Exposure Limits:

The Company recommended exposure is 400 ppm.

Acute Effects of Overexposure:

Eye: May be mildly irritating.

Skin: May be mildly irritating. Dermal LD50 for Soltrol® 100 is 15.4 g/kg (rabbit).

Inhalation: May cause headache, dizziness, nausea, unconsciousness. The inhalation LC50 for Soltrol® 100 in rats after a four hour exposure period and a fourteen day post exposure observation period is greater than 3684 ppm.

Ingestion: May irritate the stomach and intestines. The oral LD50 for Soltrol® 100 in rats is greater than 34.6 g/kg. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs.
Subchronic and Chronic Effects of Overexposure:

Some isoparaffins have produced kidney damage in male rats only. No comparable kidney disease is known to occur in humans.

Other Health Effects:

A Toxicity Study Summary for Soltrol® 100, is available upon request.

Health Hazard Categories:

CLASS D: POISONOUS AND INFECTIOUS MATERIAL CATEGORIES

1. Materials Causing Immediate and Serious Toxic Effects
   A. Very Toxic _____
   B. Toxic _____

2. Materials Causing Other Toxic Effects
   A. Very Toxic
      1. Chronic Toxic Effects _____
      2. Teratogen/Embryo Toxin _____
      3. Carcinogen _____
      4. Reproductive Toxin _____
      5. Respiratory Tract Sensitizer _____
      6. Mutagen _____
   B. Toxic
      1. Chronic Toxic Effects _____
      2. Skin or Eye Irritant __X__
      3. Skin Sensitizer _____
      4. Mutagen _____

Specify: Expected to be irritating to the eyes.

Other: Lung-Aspiration Hazard

First Aid and Emergency Procedures:

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Wash skin with soap and water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Inhalation: Remove from exposure. If breathing is difficult, give oxygen. If breathing ceases, administer artificial respiration followed by oxygen. Seek immediate medical attention.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.
G. Physical Data

Appearance: Colorless liquid
Odor: Mild
Boiling Point: 320–332°F (160–167°C)
Vapor Pressure: 0.1 psia @ 77°F (25°C)
Vapor Density (Air = 1): > 1
Solubility in Water: Negligible
Specific Gravity (H2O = 1): 0.746 @ 60/60°F (15.6/15.6°C)
Percent Volatile by Volume: 100
Evaporation Rate (Butyl Acetate = 1): < 1
Viscosity: 1.12 cSt @ 100°F (38°C)

H. Fire and Explosion Data

Flash Point (Method Used): 105°F (41°C) (TCC, ASTM D56)
Flammable Limits (% by Volume in Air): LEL - 1.0 (estimated)
UEL - 3.0 (estimated)

Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO2)

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Use NIOSH approved self-contained breathing apparatus and other protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source if possible. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire - product will float and could be rekindled on surface of water.

Fire and Explosion Hazards: Carbon oxides formed when burned. Highly flammable vapors which are heavier than air may accumulate in low areas and/or spread along ground away from handling site. Flash back along vapor trail is possible.

I. Spill, Leak and Disposal Procedures

Precautions Required if Material is Released or Spilled:
Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section C if exposure conditions warrant. Shut off source, if possible and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in a dry, inert material (sand, clay, etc). Transfer to disposal drums using non-sparking equipment.

Waste Disposal (Insure Conformity with all Applicable Disposal Regulations):
Incinerate or place in permitted waste management facility.
J. DOT Transportation

Shipping Name: Petroleum distillates, n.o.s.
Hazard Class: 3 (Flammable liquid)
ID Number: UN 1268
Packing Group: III
Marking: Petroleum distillates, n.o.s., UN 1268
Label: Flammable liquid
Placard: Flammable/1268

Hazardous Substance/RQ: Not Applicable
Shipping Description: Petroleum distillates, n.o.s., 3 (Flammable liquid), UN 1268, PG III
Packaging References: 49 CFR 173.150, 173.203, 173.241

NOTE: This product may be reclassified as a combustible liquid when shipped domestically, by land only. If reclassified as a combustible liquid, this product is unregulated by DOT when shipped in non-bulk quantities.

K. RCRA Classification - Unadulterated Product

Ignitable (D001)

Prior to disposal, consult your Environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

L. Protection Required for Work on Contaminated Equipment

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section C if exposure conditions warrant.

M. Hazard Classification

Class B-Flammable and Combustible Material

Class D-Poisonous and Infectious Material
Division 2. Materials Causing Other Toxic Effects

N. Additional Comments
SARA 313

As of the preparation date, this product did not contain a chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 C FR Part 372.

NFPA 704 Hazard Codes - - - - - - - - Signals

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REFERENCES

ACGIH American Conference of Government Industrial Hygienists
ASTM American Society of Testing and Materials
DOT Department of Transportation, U.S.
EPA Environmental Protection Agency, U.S.
IARC International Agency for Research on Cancer
MSHA Mine Safety and Health Administration, U.S.
NFPA National Fire Protection Association
NIOSH National Institute of Occupational Safety and Health, U.S.
NTP National Toxicology Program, U.S.
OSHA Occupational Safety and Health Administration, U.S.
RCRA Resource Conservation and Recovery Act, U.S.
SARA Superfund Amendments and Reauthorization Act, U.S.
TSCA Toxic Substances Control Act, U.S.