Section 1. Substance name and company identification

1.1 Product identifier

Common name   Petroleum Ether
Chemical class   Solvent

REACH registration  This substance is derived from natural gas condensate and meets the criteria for exemption from REACH registration under Annex V.

1.2 Relevant identified uses of the substances or mixture and of the company/undertaking

Solvent, blowing agent for polystyrene, chemical intermediate

1.3 Details of the supplier of the safety data sheet

Manufacturer   South Hampton Resources, Inc.
7752 FM 418 West
Silsbee, Texas 77656
USA
Tel: +1 409-385-8300
E mail: customerservice@southhamptonr.com

EU Only Representative   TSGE
Concordia House, St James Business Park,
Grimbold Crag Court, Knaresborough,
North Yorkshire, HG5 8QB,
United Kingdom
Tel: +44 (0) 1423 799 633
Fax: +44 (0) 1423 797 804

1.4 Emergency telephone number

In case of emergency  Tel. +1 703 527 3887 (CHEMTREC)

Section 2. Hazards Identification

2.1 GHS Classification

Flammable liquids, Category 2
Eye irritation, Category 2B
Specific target organ systemic toxicity-single exposure, Category 3
Aspiration hazard, Category 1
Acute aquatic toxicity, Category 2
Skin Irritant, Category 2

2.2 GHS Label elements

Pictograms:
Signal Word: Danger

Hazard Statements

H225  Highly flammable liquid and vapour
H304  May be fatal if swallowed and enters airways
H315  Causes skin irritation
H320  Causes eye irritation
H336  May cause drowsiness or dizziness.
H401  Toxic to aquatic life
H411  Toxic to aquatic life with long lasting effects

Precautionary statements

P210   Keep away from heat/ sparks/open flames/hot surfaces. — No smoking.
P243+P240  Take precautionary measures against static discharge. Ground/bond container and receiving equipment.
P273   Avoid release to the environment.
P280  Wear protective gloves/protective clothing/eye protection/face protection
P301+P310+P331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.
P403+P235  Store in a well-ventilated place. Keep cool. Keep container tightly closed
P370+P378  In case of fire: Use foam, carbon dioxide or dry powder for extinction.
P501  Dispose of product/container in accordance with all applicable regulations.

Section 3. Composition

Product CAS No. Is 8032-32-4

<table>
<thead>
<tr>
<th>Name</th>
<th>EC No</th>
<th>CAS No</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Pentane</td>
<td>203-692-4</td>
<td>109-66-0</td>
<td>73-77 w%</td>
</tr>
<tr>
<td>Isopentane</td>
<td>201-142-8</td>
<td>78-78-4</td>
<td>&lt;1 w%</td>
</tr>
<tr>
<td>Hexane, mixed isomers</td>
<td>601-007-007</td>
<td>92112-69-1</td>
<td>23-27 w%</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

4.1 Description of first aid measures

Inhalation
If breathing difficulties, dizziness, or light-headedness occur when working in areas with high vapour concentrations, remove victim to fresh air. If victim experiences continued breathing difficulties, keep patient warm and at rest, and seek medical attention. If breathing stops, begin artificial respiration and seek immediate medical attention.
Skin contact
If this product comes into contact with the skin, wash with soap and water. Seek medical attention if irritation persists. Remove and wash contaminated clothing before re-use.

Accidental eye contact
If this product comes into contact with the eyes, flush with large quantities of water for several minutes, while gently holding the eyelids open. Seek medical attention if irritation persists.

Ingestion
If this product is swallowed, DO NOT INDUCE VOMITING. Give small quantities (<250 ml) of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Notes to doctor/physician
Aspiration of solvent may cause chemical pneumonitis.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Petroleum ether may cause dizziness and drowsiness if inhaled, and high concentrations may result in central nervous system depression, and loss of consciousness.

Ingestion: Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.

4.3 Indication of any immediate attention and special treatment needed
If ingested or inhaled seek medical attention immediately.

Section 5. Firefighting Measures

5.1 Extinguishing media
Small fires: Use foam, carbon dioxide or dry powder extinguisher.

Large fires: Use foam to extinguish fires. Water spray should not be used, as petroleum ether is lighter than water and may form pools of burning liquid on top of water. Keep adjacent containers cool using water spray.

5.2 Special hazards arising from the substance or mixture
Petroleum ether is extremely flammable. Remove all sources of ignition. Vapors are heavier than air and may travel considerable distances to a source of ignition and flash back. Vapor/air mixtures may be explosive. Electrostatic discharges may cause fire and/or explosion.

5.3 Advice for fire-fighters
Wear positive pressure Self Contained Breathing Apparatus.

5.4 Evacuation
If tank, rail car, or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions, also, consider initial evacuation for 300 meters (1/2 mile) in all directions.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures
Remove all ignition sources and evacuate unnecessary personnel from the area. Ventilate the area if possible. Wear suitable protective clothing including solvent resistant gloves and coveralls. If vapor concentrations are high, respiratory protective equipment may be required. See section 8 for more information.

6.2 Environmental precautions

Prevent entry into sewers and watercourses. If product enters sewers or watercourses, inform the appropriate environmental authorities.

6.3 Method for cleaning up

Small spills: Remove all ignition sources. Use non-sparking hand tools. Take precautions to avoid electrostatic discharge. Absorb spillage in a non-combustible absorbent, e.g. sand or vermiculite, and place in a suitable container for disposal.

Large spills: Remove all ignition sources. Use non-sparking hand tools. Contain spill and cover if possible to reduce evaporation. Transfer to a suitable container by mechanical means. Take precautions to avoid static discharge, e.g. by grounding containers, etc. Consider initial downwind evacuation for at least 300 meters (1,000 feet).

6.4 Reference to other sections

Refer to section 8 of SDS for personal protection details.

Section 7. Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use only in well ventilated areas. Petroleum ether is extremely flammable. Avoid contact with all ignition sources, including hot surfaces. Take precautions to avoid electrostatic discharges, such as grounding of containers and equipment, and restricting flow rates. Vapors are heavier than air and may accumulate in low lying areas and below ground areas such as ducts and sewers.

7.2 Condition for safe storage, including any incompatibilities

Store in a well ventilated area, away from all ignition sources. If stored in drums, keep out of direct sunlight.

Section 8. Exposure Controls/Personal Protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>TWA</th>
<th>IDLH</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Pentane</td>
<td>1000 ppm, 3000 mg/m³</td>
<td>OSHA</td>
<td></td>
</tr>
<tr>
<td>n-Pentane</td>
<td>600 ppm, 1800 mg/m³</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>Isopentane</td>
<td>600 ppm, 1800 mg/m³</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>Hexane</td>
<td>50 ppm, 180 mg/m³</td>
<td>NIOSH</td>
<td></td>
</tr>
<tr>
<td>Hexane</td>
<td></td>
<td>1100 ppm</td>
<td>NIOSH</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids. General mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weighted TLV ranges. If general ventilation proves inadequate to maintain safe vapor
concentrations, supplemental local exhaust may be required. Other special precautions such as respiratory masks or environmental containment devices may be required in extreme cases.

**Respiratory protection**
Use only in well ventilated area. If high exposure levels are likely, then suitable respiratory protection will be required. Very high vapor concentrations may result in oxygen displacement and self-contained breathing apparatus or airline may be required.

**Hand Protection**
Wear suitable chemical resistant gloves recommended for use with hydrocarbon solvent. Nitrile gloves may be suitable, but glove manufacturers’ specifications should always be checked first. Natural rubber gloves are not suitable. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

**Eye protection**
Wear suitable eye protection, safety glasses or goggles, when handling this product.

**Skin protection**
Aprons or coveralls made of fire retardant material are recommended. These should be changed after use or if contaminated. Wash before re-use.

### Section 9. Physical and Chemical Properties

#### 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td>Colorless Liquid</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Gasoline-like odor</td>
</tr>
<tr>
<td><strong>Melting point/freezing point:</strong></td>
<td>not available</td>
</tr>
<tr>
<td><strong>Approximate boiling range:</strong></td>
<td>95-140°F/35-60°C</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>-40°F/-40°C</td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
<td>not available</td>
</tr>
<tr>
<td><strong>Flammability limits in air:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Lower:</strong></td>
<td>1.4 v%</td>
</tr>
<tr>
<td><strong>Upper:</strong></td>
<td>8.3 v%</td>
</tr>
<tr>
<td><strong>Reid vapor pressure at 100°F:</strong></td>
<td>14.0 psia</td>
</tr>
<tr>
<td><strong>Relative vapor density (Air=1.0):</strong></td>
<td>not available</td>
</tr>
<tr>
<td><strong>Density at 60°F:</strong></td>
<td>0.64 kg/l</td>
</tr>
<tr>
<td><strong>Solubility in water:</strong></td>
<td>negligible</td>
</tr>
<tr>
<td><strong>Partition Coefficient: n-octanol/water:</strong></td>
<td>not available</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature:</strong></td>
<td>not available</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>not available</td>
</tr>
</tbody>
</table>

**Sources of Information:**
1. Company product testing
2. Hawley’s Condensed Chemical Dictionary revised by N. Irving Sax and Richard J. Lewis, and
3. CHRIS directory

### Section 10. Stability and Reactivity

#### 10.1 Reactivity
Stable under normal conditions.

#### 10.2 Chemical stability
Stable under normal conditions.
10.3 Possibility of hazardous reactions
Hazardous polymerization will not occur.

10.4 Conditions to avoid
Keep away from sources of ignition.

10.5 Incompatible materials
This product is incompatible with strong oxidizing agents, strong acids and bases, and selected amines.

10.6 Hazardous decomposition products
None

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:
Harmful when inhaled in high concentrations or ingested. Petroleum ether may cause dizziness and drowsiness if inhaled, and high concentrations may result in central nervous system depression, and loss of consciousness. Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.
Irritation: Petroleum ether can be irritating to the eye, may cause redness.
Corrosivity: Not corrosive
Sensitisation: Not known to be a sensitizer
Repeated dose toxicity: Prolonged or repeated contact of this product will result in defatting of the skin, causing dryness and cracking.
Carcinogenicity: Not expected to be carcinogenic.
Mutagenicity: Not expected to be mutagenic
Toxicity for reproduction: Not expected to be toxic to reproduction.

Route of exposure: Inhalation and ingestion

Symptoms related to the physical, chemical and toxicological characteristics: Petroleum ether may cause dizziness and drowsiness if inhaled and high concentrations may result in central nervous system depression, and loss of consciousness. Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.

Section 12. Ecological Information

12.1 Toxicity
Petroleum ether is classified as toxic to aquatic organisms and likely to cause long term effects in the environment.

12.2 Persistence and degradability
Petroleum ether is readily biodegradable in aquatic systems, however, in view of its high evaporation rate, petroleum ether is expected to volatilize rapidly from water sources into the atmosphere, where it will be degraded by photochemical reaction.

12.3 Bio accumulative potential
No information available

12.4 Mobility in soil
No information available

12.5 Results of PBT and vPvB assessment
No information available

12.6 Other adverse effects
No further details

Section 13. Disposal Considerations

13.1 Waste treatment methods
Recover and recycle product if possible. If recovery and recycling are not possible, petroleum ether may be disposed of by incineration.

Please follow all local, regional, national and international laws.

Section 14. Transport Information

14.1 UN number
1268

14.2 USDOT (United States Department of Transportation) (Domestic)
   USDOT Proper Shipping Name: Petroleum Distillates, N.O.S (pentanes, hexanes)
   Hazard Classification: 3, Packing Group III
   Label: Flammable Liquid
   Placard: Flammable Liquid

Section 15. Regulatory Information

15.1 Clean Air Act
   • This product neither contains nor was it manufactured with any class 1 or class 2 ozone depleting substances.
   • Under Section 112 (r), 40 CFR Part 68, the threshold quantity for both n-pentane and isopentane is 10,000 lbs.

15.2 Emergency Planning and Community Right-To –Know Act (EPCRA)
   • Section 302- This product does not contain any constituents that are classified as an extremely hazardous substance.
   • Section 311/312 (Tier II) - This product is considered a fire hazard and an acute health hazard.
   • Section 313- This product contains hexane which is considered a toxic chemical.

15.3 California Office of Environmental Health Hazard Assessment
• Proposition 65- This product contains none of the chemicals which may cause cancer or birth defects as listed in this legislation.

15.4 Coalition of Northeast Governors (CONEG)
• This product contains no lead, mercury, cadmium, or hexavalent chromium.

15.5 New Jersey Right-to-Know
• All of the compounds in this product except for 3-methylpentane appear on this state’s hazardous substance list.

15.6 Pennsylvania Right-to-Know
• All of the compounds in this product appear on this state’s hazardous substance list.

15.7 Toxic Substance Control Act (TSCA)
• All constituents of this product are listed in TSCA.

**Section 16. Other Information**

**Hazard Ratings:**

<table>
<thead>
<tr>
<th>GHS:</th>
<th>NFPA:</th>
<th>HMIS:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health:</td>
<td>Health:</td>
<td>Health:</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Flammability:</td>
<td>Fire:</td>
<td>Flammability:</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Reactivity:</td>
<td>Reactivity:</td>
<td>Reactivity:</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Specific Hazard:</td>
<td>None</td>
</tr>
</tbody>
</table>

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