Section 1. Product and Company Identification

Product Name: Diisopropyl Ether
CAS Number: 108-20-3

Parchem - fine & specialty chemicals
415 Huguenot Street
New Rochelle, NY 10801

(914) 654-6800  (914) 654-6899
parchem.com  info@parchem.com

Section 2. Hazards Identification

Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Flammable liquids (Category 2), H225
Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336
Acute aquatic toxicity (Category 3), H402
Chronic aquatic toxicity (Category 3), H412

GHS Label Elements

Pictograms:

Signal word: DANGER!

Hazard and precautionary statements
Hazard statement(s)
H225 Highly flammable liquid and vapor.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement(s)
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS
May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.

### Section 3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diisopropyl Ether</td>
<td>108-20-3</td>
<td>≤ 100%</td>
</tr>
</tbody>
</table>

### Section 4. First Aid Measures

**Description of first aid measures**

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Flush eyes with water as a precaution.

**If swallowed:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Most important symptoms and effects, both acute and delayed:** The most important known symptoms and effects are described in the labelling and/or in section 11

**Indication of any immediate medical attention and special treatment needed:** No data available.
Section 5. Firefighting Measures

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides
Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.
Further information: Use water spray to cool unopened containers.

Section 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
Methods and materials for containment and cleaning up: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).
Reference to other sections: For disposal see section 13.

Section 7. Handling and Storage

Precautions for safe handling: Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.
Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Flammable liquids

Section 8. Exposure Controls / Personal Protection

Control parameters
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Value</th>
<th>Control Parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diisopropyl ether</td>
<td>108-20-3</td>
<td>TWA</td>
<td>250,000 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Remarks Upper Respiratory Tract irritation Eye irritation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL</td>
<td>310,000 ppm</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper Respiratory Tract irritation Eye irritation</td>
</tr>
</tbody>
</table>
Exposure controls

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection: impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Form: Clear, liquid
Color: Colorless
Melting point/range: -85°C (-121°F) - lit.
Initial boiling point and boiling range: 68 - 69°C (154 - 156°F) - lit.
Flash point: -28.99°C (-20.18°F) - closed cup

Upper/lower flammability or explosive limits

Upper explosion limit: 21%(V)
Lower explosion limit: 1%(V)
Vapor pressure
227 hPa (170 mmHg) at 25°C (77°F)
160 hPa (120 mmHg) at 20°C (68°F)

Vapor density: 3.53 - (Air = 1.0)
Relative density: 0.725 g/mL at 25°C (77°F)
Water solubility: ca. 10.2 g/l

Other safety information
Relative vapor density: 3.53 - (Air = 1.0)

Section 10. Stability and Reactivity

Reactivity: No data available
Chemical stability: Stable under recommended storage conditions.
Contains the following stabilizer(s): BHT (0.006 %)

Possibility of hazardous reactions: Vapors may form explosive mixture with air.
Conditions to avoid: Heat, flames and sparks.
Incompatible materials: Strong oxidizing agents

Hazardous decomposition products: In the event of fire: see section 5

Section 11. Toxicological Information

Information on toxicological effects
Acute toxicity
LD50 Oral - Rat - 8,470 mg/kg
LC50 Inhalation - Rat - 162,000 mg/m3
Behavioral: Muscle contraction or spasticity
LD50 Dermal - Rabbit - 14,480 mg/kg

Skin corrosion/irritation
Skin - Rabbit
Result: Mild skin irritation

Serious eye damage/eye irritation: No data available
Respiratory or skin sensitization: No data available
Germ cell mutagenicity: No data available

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
Reproductive toxicity - Rat - Inhalation
Maternal Effects: Other effects. Specific Developmental Abnormalities: Musculoskeletal system.

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard: No data available

Additional Information
RTECS: TZ5425000

Nausea, Headache, Vomiting, narcosis
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological Information

Toxicity
Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 91.7 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna (Water flea) - 190 mg/l - 48 h

Persistence and degradability
Biodegradability aerobic - Exposure time 28 d
Result: 0 % - Not biodegradable
(OECD Test Guideline 301D)
Remarks: No data available
Ratio BOD/ThBOD: 19 %

Bioaccumulative potential: No data available
Mobility in soil: No data available
Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.
Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.

Section 14. Transport Information

**DOT (US)**
- **UN number:** UN1159
- **Class:** 3
- **Packing group:** II
- **Proper shipping name:** Diisopropyl ether
- **Reportable Quantity (RQ):**
- **Poison Inhalation Hazard:** No

**IMDG**
- **UN number:** UN1159
- **Class:** 3
- **Packing group:** II
- **EMS-No:** F-E, S-D
- **Proper shipping name:** DIISOPROPYL ETHER

**IATA**
- **UN number:** UN1159
- **Class:** 3
- **Packing group:** II
- **Proper shipping name:** Diisopropyl ether

Section 15. Regulatory Information

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards:** Fire Hazard

**Massachusetts Right to Know Components**

<table>
<thead>
<tr>
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<th>CAS-No.</th>
<th>Revision Date</th>
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**Pennsylvania Right to Know Components**

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New Jersey Right to Know Components

<table>
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California Prop. 65 Components: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

HMIS Rating
Health Hazard: 1
Flammability: 3
Physical Hazard: 0

Section 16. Other Information

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

REVISION DATE: 7/22/2015