

Section 1. Product and Company Identification

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

**Parchem - fine & specialty chemicals**  
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**New Rochelle, NY 10801**  
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Collect Calls Accepted

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

**Common Name** Diisopropyl Ether  
**Synonym(s)** Isopropyl ether  
**Formula**  $C_6H_{14}O$   
**CAS Number** 108-20-3

COMPONENT	CAS NUMBER	CONCENTRATION
Diisopropyl Ether	108-20-3	≤ 100%

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**

Component	CAS No.	Value	Control Parameters	Basis
Diisopropyl ether	108-20-3	TWA	250.000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation		Eye irritation
		STEL	310.000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation		Eye irritation



		TWA	500.000 ppm 2,100.000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m <sup>3</sup> is approximate.		
		TWA	500.000 ppm 2,100.000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

### 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.

## 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/m<sup>3</sup>

Remarks: Behavioral: Somnolence (general depressed activity). Behavioral: Change in motor activity (specific assay).

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**

Diisopropyl ether	CAS-No.	Revision Date
	108-20-3	1993-04-24

**Pennsylvania Right to Know Components**

Diisopropyl ether	CAS-No.	Revision Date
	108-20-3	1993-04-24



**New Jersey Right to Know Components**

Diisopropyl ether	CAS-No.	Revision Date
	108-20-3	1993-04-24

**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.

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