

**D-Clear™****1. Identification****Product Name:** D-Clear™**Item #:** 4325, 4326**Web SDS:** S72**Synonyms:** D-limonene; Hemo-De; Carvene; (+) -4- Isopropenyl -1-methylcyclohexene; (+) -R-Limonene; (R) - 1- Methyl -4-(1-methylethenyl) cyclohexene; D- (+) - Limonene; d-p-Mentha-1, 8-diene; optically active terpene; (The racemic mixture of d-limonene and l-limonene isomers is known as dipentene).**Recommended Use:** Clearing Agent**Restrictions on Use:** N/A**Manufacturer:**BBC Biochemical  
409 Eleanor Lane,  
Mount Vernon, WA 98273  
1-800-635-4477**In Case of Emergency:**Chemtrec US 1-800-424-9300  
Chemtrec International 703-527-3887**2. Hazards Identification****OSHA Hazard Classification(s):**Skin Irritation - Category 2  
Eye Irritation - Category 2A  
Sensitization - Skin - Category 1B  
Flammable Liquids - Category 3**Signal Word:** Warning**Hazard Statement(s):** Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Flammable liquid and vapor.**Pictogram(s):****Precautionary Statement(s):** Prevention: Wash body thoroughly after handling. Wear protective gloves. Wear eye protection, face protection. Avoid breathing dust, vapors. Contaminated work clothing must not be allowed out of the workplace. Keep away from heat sources and open flame. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting and equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use water, dry chemical, CO2 or foam to extinguish.

Storage: Store in a well-ventilated place. Keep cool.

Disposal: Disposal of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A**Percent of mixture with unknown acute toxicity:** N/A**3. Composition and Information on Ingredients**

Chemical Name	Common Name	CAS #	Concentration %
D-limonene		5989-27-5	Greater than 95%

**4. First Aid Measures****Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.



## D-Clear™

Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness. May cause skin sensitization.

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water. Use water spray to cool fire-exposed containers and disperse vapors.

**Fire Hazards (Chemical):** OSHA classified Flammable Liquid

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion. Vapors can travel distances to ignition source and flash back. Cool fire exposed containers with water. Fine mist or spray may be flammable at temperatures below the flash point. When heated above the flash point this material emits flammable vapors which, when mixed with air, can burn or be explosive.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product. Keep away from heat, sparks, open flames, hot surfaces. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical, ventilating, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

**Storage:** Store in a well-ventilated place. Keep cool. Store away from sources of ignition, open flame and heat. Keep container tightly sealed when not in use. Separate from oxidizing materials. Partially filled containers should be blanketed with nitrogen.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
N/A		

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Almost Colorless, Liquid



**Molecular Weight:** 136.2  
**Molecular Formula:** C<sub>10</sub> H<sub>16</sub>  
**pH:** N/A  
**Boiling Point and Boiling Range:** 177°C  
**Melting Point/Freezing Point:** -96.9°C  
**Flash Point:** 43°C  
**Specific Gravity/Relative Density:** 0.8400  
**Odor:** Citrus-like aroma  
**Odor Threshold:** N/A  
**Color:** Almost Colorless  
**Flammability (solid/gas):** N/A  
**Vapor Density:** N/A  
**Upper/Lower flammability or explosive limits:** LEL: 0.70 vol%, UEL: 6.10 vol%  
**Vapor Pressure:** N/A  
**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** 255°C  
**Solubility:** Insoluble in Water.  
**Decomposition Temperature:** N/A

## 10. Stability and Reactivity

### Reactivity:

**Chemical Stability:** Stable

**Conditions of Stability/Instability:** Stable under normal temperatures and pressures. Oxidizes to a film in air, oxidation behavior similar to that of rubber or drying oils. Avoid heat, flame, and other sources of ignition and prolonged air exposure.

**Stabilizers needed:** None

**Safety issue indicated by appearance change:** N/A

**Other:** N/A

**Hazardous Reactions:** N/A

**Hazardous Polymerization:** Does not occur

**Conditions to avoid:** N/A

**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases

**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (i.e. Carbon monoxide) may be released in a fire.

## 11. Toxicological Information

### Likely Routes of Exposure

**Eyes:** Irritation.

**Skin:** Irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Prolonged and/ or repeated contact may cause defatting of the skin and dermatitis.

**Inhalation:** Dizziness, headache. Irritation of respiratory tract.

**Ingestion:** Nausea. May cause digestive tract disturbances.

**Signs or Symptoms of Exposure:** Nausea. Skin Irritation.

**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.

**Acute Toxicity (Numerical Measures):** N/A

**Carcinogenicity (NTP, IARC, OSHA):** IARC Group 3 "Not classifiable as to its carcinogenicity to humans"



### 12. Ecological Information

**Ecotoxicity:** N/A

**Persistence and degradability:** N/A

**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A

**Mobility in the soil:** N/A

**Adverse Environmental Effects:** N/A

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** UN2319

**UN Proper Shipping Name:** Terpene Hydrocarbons, n.o.s., (D-Limonene)

**Transport Hazard Class(es):** 3

**Packing Group Number:** III

**Environmental Hazards (IMDG code):**

**Marine Pollutant:** No

**Transport in Bulk (IBC Code):** N/A

**Special Transport Precautions:** N/A

### 15. Regulatory Information

**OSHA:**

**DOT:**

**EPA:**

**CPSC:**



# Safety Data Sheet

## D-Clear™

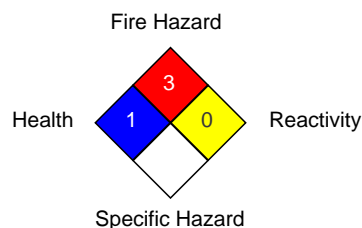
### 16. Other Information

Revision Date: 10/28/2014

#### NFPA

Health	1
Fire Hazard	3
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



#### HMIS

Health	1
Flammability	3
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	1
Flammability	3
Physical Hazard	0
Personal Protection	

#### Notice to Reader:

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