



ENFORCER Products  
 A Division of Acuity Specialty Products  
 Group, Inc.  
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# Material Safety Data Sheet and Safe Handling and Disposal Information

**Section 1. Chemical Product and Company Identification**

**Product name** Citrus Drain & Disposer Cleaner  
**Product Code** HDOC8  
**Date of issue** 11/11/05 **Supersedes**

**Emergency Telephone Numbers** **For a Medical Emergency:**  
 INFOTRAC  
 (877) 541-2016 (Toll Free - Calls Recorded)

**For a Transportation Emergency:**  
 CHEMTREC  
 (800) 424-9300 (Toll Free - Calls Recorded)

**Printing Date:**

**Prepared by** Compliance Services Group  
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 Atlanta, GA 30318

**Section 2. Composition, Information on Ingredients**

Name of Hazardous Ingredients	CAS #	% by Weight	Exposure Limits
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1 - 5	<b>ACGIH TLV (United States).</b> TWA: 20 ppm 8 hour(s). <b>OSHA PEL (United States). Skin</b> TWA: 50 ppm 8 hour(s).
MONOETHANOLAMINE; 2-aminoethanol; MEA	141-43-5	1 - 5	<b>OSHA PEL / ACGIH TLV (United States).</b> TWA: 3 ppm 8 hour(s). <b>OSHA /ACGIH (United States).</b> STEL: 6 ppm 15 minute(s).
D-LIMONENE; orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-	5989-27-5	1 - 5	Not established

**Section 3. Hazards Identification**

**Acute Effects** **Routes of Entry** Dermal contact. Inhalation.  
**Skin** Direct contact may cause irritation and redness. May cause sensitization by skin contact. Product may be dermal absorbed.  
**Eyes** Causes eye irritation. Inflammation of the eye is characterized by redness, watering, and itching.  
**Inhalation** Avoid breathing vapors or spray mists. Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system depression.  
**Ingestion** Harmful if swallowed. Can cause gastrointestinal disturbances.

**HMIS**

<b>Health</b>	<b>1</b>
<b>Fire Hazard</b>	<b>2</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>B</b>

**Carcinogenic Effects** Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

**Chronic Effects** The substance may be toxic to blood, kidneys, lungs, liver, upper respiratory tract, skin, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

**See Toxicological Information (section 11)**

**Section 4. First Aid Measures**

**Eye Contact** Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Get medical attention immediately.  
**Skin Contact** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.  
**Inhalation** If inhaled, remove to fresh air. If irritation persists, get medical attention.  
**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

**Section 5. Fire Fighting Measures**

**Flash Point** Closed cup: 57.22°C (135°F). **Flammable Limits** Not determined.  
(Tagliabue.)



**Flammability** COMBUSTIBLE LIQUID AND VAPOR.

**Fire Hazard** Combustible. Avoid all possible sources of ignition (spark or flame).

**Fire-Fighting Procedures** Use DRY chemicals, CO<sub>2</sub>, water spray or foam. Fire-fighters should wear proper protective equipment.

**Section 6. Accidental Release Measures**

**Spill Clean up** Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

**Section 7. Handling and Storage**

**Handling** Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Do not ingest. Wash thoroughly after handling.

**Storage** Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Store between 40°F - 120°F (4.4°C - 49°C). Protect from freezing. Keep out of the reach of children.

**Section 8. Exposure Controls, Personal Protection****Personal Protection****Protective Clothing (Pictograms)**

**Eyes** Safety glasses.

**Body** Recommended: Nitrile gloves. Rubber gloves. Neoprene gloves.



**Respiratory** Use with adequate ventilation. A respirator is not needed under normal and intended conditions of product use.

**Section 9. Physical and Chemical Properties**

**Physical State** Liquid.

**Color** Clear. Amber.

**pH** 11.0-12.0

**Odor** Citrus

**Boiling Point** Not determined.

**Vapor Pressure** Not determined.

**Specific Gravity** 1.01 (Water = 1)

**Vapor Density** Not determined.

**Solubility** Soluble in cold water, hot water.

**Evaporation Rate** 1 compared to water  
**VOC (Consumer)** 105.87 (g/l). 0.88 lbs/gal  
(10.50%)

**Section 10. Stability and Reactivity**

**Stability and Reactivity** The product is stable.

**Incompatibility** Slightly reactive to reactive with oxidizing agents, acids. Keep away from heat, sparks and flame.

**Hazardous Polymerization** Will not occur.

**Hazardous Decomposition Products** carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Section 11. Toxicological Information****Toxicity to Animals****Ethylene Glycol Monobutyl Ether:**

ORAL (LD50): Acute: 1746 mg/kg [Rat].

DERMAL (LD50): Acute: 680 mg/kg [Rabbit].

VAPOR (LC50): Acute: 450 ppm 4 hour(s) [Rat (Female)].

**Monoethanolamine:**

ORAL (LD50): Acute: 1720 mg/kg [Rat].

DERMAL (LD50): Acute: >1000 mg/kg [Rabbit].

**d-Limonene:**

ORAL (LD50): Acute: >5000 mg/kg [Rat].

DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].

**Section 12. Ecological Information**

**Ecotoxicity** Not available.

**Biodegradable/OECD** Not available.

**Section 13. Disposal Considerations**

**Waste Information** Waste must be disposed of in accordance with federal, state and local environmental control regulations.

**Waste Stream** Code: D001

Classification: - (Hazardous waste.)

Origin: - (RCRA waste.)

Consult your local or regional authorities.

**Section 14. Transport Information**

**Proper shipping name** Not regulated.  
**DOT Classification** Not a DOT controlled material (United States).  
**UN number** None.

**TDG Classification** Not a TDG controlled material.

**Section 15. Regulatory Information**

**U.S. Federal Regulations** SARA 313 toxic chemical notification and release reporting:

Ethylene Glycol Monobutyl Ether

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA inventory.

**State Regulations** California prop. 65: No products were found.

**WHMIS (Canada)** Class B-3: Combustible liquid with a flash point between 37.8°C (100°F) and 93.3°C (200°F).  
Class D-1B: Material causing immediate and serious toxic effects (TOXIC).  
Class D-2B: Material causing other toxic effects (TOXIC).

**Section 16. Other Information**

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*