



ENFORCER Products
 A Division of Acuity Specialty Products
 Group, Inc.
 P.O. Box 1060
 Cartersville, GA 30120
 1-888-805-HELP
 www.zepcommercial.com

Material Safety Data Sheet and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name **Organic Citrus Drain & Disposer Cleaner**
Product Code **ZOC**
Date of issue **04/05/07** **Supersedes** 11/11/05

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
 Acuity Specialty Products Group
 1420 Seaboard Industrial Blvd.
 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	ACGIH TLV (United States). TWA: 20 ppm 8 hour(s). OSHA PEL (United States). Skin TWA: 50 ppm 8 hour(s). OSHA PEL / ACGIH TLV (United States). TWA: 3 ppm 8 hour(s). OSHA /ACGIH (United States). STEL: 6 ppm 15 minute(s). Not established
MONOETHANOLAMINE; 2-aminoethanol; MEA	141-43-5	1 - 5	
D-LIMONENE; orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-	5989-27-5	1 - 5	

Section 3. Hazards Identification

Acute Effects **Routes of Entry** Dermal contact. Inhalation.
Skin Direct contact may cause irritation and redness. May cause allergic reactions to certain individuals. May be harmful if absorbed through skin.
Eyes Causes eye irritation. Inflammation of the eye is characterized by redness, watering, and itching.
Inhalation Over-exposure by inhalation may cause respiratory irritation. Can cause central nervous system depression.
Ingestion Harmful if swallowed. Can cause gastrointestinal disturbances.

HMIS	
Health	1
Fire Hazard	2
Reactivity	0
Personal Protection	B

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

Chronic Effects Repeated or prolonged exposure to the substance can produce damage to blood, kidneys, lungs, liver, upper respiratory tract, central nervous system (CNS).
 Prolonged skin contact may cause dermatitis with drying and cracking of skin.

See Toxicological Information (section 11)

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Check for and remove any contact lenses. Get medical attention immediately.
Skin Contact Rinse with plenty of running 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). (Tagliabue.)	Flammable Limits Not determined.
Flammability	COMBUSTIBLE LIQUID AND VAPOR.	
Fire Hazard	Combustible. Avoid all possible sources of ignition (spark or flame).	
Fire-Fighting Procedures	Use DRY chemicals, CO ₂ , 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.
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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)	106 (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 ₂), nitrogen oxides (NO, NO ₂ ...).

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.
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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-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.