



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**            **Citrus Cleaner & Degreaser Concentrate**  
**Product Code**            **HDCIT32/128**  
**Date of issue**            **01/21/05**                    **Supersedes 12/10/03**

**Emergency Telephone Numbers**            **For MSDS Information:**  
 Compliance Services (404) 352-1680  
**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
D-LIMONENE - orange distillate; citrus terpene; cyclohexene, 1-methyl-4-(1-methylethenyl)-, (R)-	5989-27-5	1 - 5	Not established
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). <b>Manufacturer (United States).</b> TWA: 35 ppm 8 hour(s).
DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol	112-34-5	1 - 5	Not established
DIPROPYLENE GLYCOL N-BUTYL ETHER; 1-(2-butoxy-1-methoxy)- 2-propanol; glycol ether dpnb	29911-28-2	1 - 5	Not established

**Section 3. Hazards Identification**

**Acute Effects**                    **Routes of Entry** Dermal contact. Eye contact.

**Skin**            Hazardous in case of skin contact (irritant, permeator). Product may be dermal absorbed. May cause skin sensitization. Direct contact may cause irritation and redness. Skin inflammation is characterized by itching, scaling, or reddening.  
**Eyes**            Hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.  
**Inhalation** Hazardous in case of inhalation. Avoid breathing vapors or spray mists. Over-exposure by inhalation may cause respiratory irritation.  
**Ingestion** May be 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**            Prolonged or repeated contact may dry skin and cause irritation. The substance may be toxic to blood, kidneys, lungs, liver, gastrointestinal tract, 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**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water. Get medical attention if irritation develops.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Section 5. Fire Fighting Measures**

<b>Flash Point</b>	Closed cup: 51.111°C (124°F). (Tagliabue.)	<b>Flammable Limits</b>	Not determined.
<b>Flammability</b>	Combustible.		
<b>Fire Hazard</b>	Combustible liquid and vapor. Avoid all possible sources of ignition (spark or flame).		
<b>Fire-Fighting Procedures</b>	Use DRY chemicals, CO <sub>2</sub> , water spray or foam. Fire-fighters should wear proper protective equipment.		

**Section 6. Accidental Release Measures**

<b>Spill Clean up</b>	Eliminate all ignition sources. 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**

<b>Handling</b>	Keep away from heat, sparks and flame. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Do not ingest. Do not reuse product container. Observe label precautions. Wash thoroughly after handling.
<b>Storage</b>	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). Keep out of the reach of children.

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

<b>Eyes</b>	Safety glasses.
<b>Body</b>	Gloves. 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**

<b>Physical State</b>	Liquid.	<b>Color</b>	Amber.
<b>pH</b>	11.0-12.0	<b>Odor</b>	Citrus
<b>Boiling Point</b>	Not determined.	<b>Vapor Pressure</b>	Not determined.
<b>Specific Gravity</b>	1.01 (Water = 1)	<b>Vapor Density</b>	Not determined.
<b>Solubility</b>	Soluble in cold water, hot water.	<b>Evaporation Rate</b>	1 compared to water
		<b>VOC (Consumer)</b>	40.33 (g/l). 0.34 lbs/gal 4.00%

**Section 10. Stability and Reactivity**

<b>Stability and Reactivity</b>	The product is stable.
<b>Incompatibility</b>	Slightly reactive to reactive with oxidizing agents, alkalis. Keep away from heat, sparks and flame.
<b>Hazardous Polymerization</b>	Will not occur.
<b>Hazardous Decomposition Products</b>	These products are carbon oxides (CO, CO <sub>2</sub> ), nitrogen oxides (NO, NO <sub>2</sub> ...).

**Section 11. Toxicological Information**

<b>Toxicity to Animals</b>	<b>d-Limonene:</b>
	ORAL (LD50): Acute: >5000 mg/kg [Rat].
	DERMAL (LD50): Acute: >5000 mg/kg [Rabbit].
	<b>Monoethanolamine:</b>
	ORAL (LD50): Acute: 1720 mg/kg [Rat.].
	<b>Diethylene Glycol Monobutyl Ether:</b>
	ORAL (LD50): Acute: 5660 mg/kg [Rat]. 2400 mg/kg [Mouse].
	DERMAL (LD50): Acute: 2700 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** Not regulated.**TDG Classification** Not a TDG controlled material.**Section 15. Regulatory Information****U.S. Federal Regulations** SARA 313 toxic chemical notification and release reporting:

Diethylene Glycol Monobutyl Ether (Certain Glycol Ethers)

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

Clean air act (CAA) 112 regulated toxic substances: Diethylene Glycol Monobutyl Ether

**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.*