

## Cleanerol™

### 1. Identification

**Product Name:** Cleanerol

**Item #:** CL2525

**Synonyms:** N/A

**Recommended Use:** N/A

**Manufacturer:**

Cancer Diagnostics, Inc.  
116 Page Point Circle  
Durham, NC 27703  
1-877-846-5393

**Restrictions on Use:** N/A

**In Case of Emergency:**

Chemtec US 1-800-424-9300  
Infotrac International 1-352-323-3500

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

Skin Corrosion/Irritation (Category 2)

Eye Damager/Irritation (Category 2)

**Signal Word:** Warning

**Hazard Statement(s):** May harmful if swallowed. May causes skin irritation. Causes serious eye irritation.

**Pictogram(s):**



**Precautionary Statement(s):** Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Do not taste or swallow

Response: IF exposed or concerned: Get medical advice/attention IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation occurs. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Rinse mouth

Storage: Store locked up in a cool, dry, well-ventilated place. Keep container tightly closed.

Disposal: Dispose of container or contents in accordance with all regulations.

**Descriptions of Hazards not otherwise classified:** See Section 16.

**Supplemental information:** See Section 16 for alphanumeric hazard (H) and precautionary (P) statements.

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
D-Limonene		5989-27-5	Trade Secret
2-Butoxyethanol		111-76-2	10 - 20

*The balance of ingredients are not classified as hazardous to health or the environment. The specific chemical identity and/or exact percentage has been withheld as a trade secret.*

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### 4. First Aid Measures

**Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Skin Contact:** Wash off with soap and plenty of water. Consult a physician if irritation occurs.

**Inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if irritation occurs.

**Ingestion:** Drink 1-2 glasses of water and immediately all poison control center or doctor for treatment advice.

**Symptoms:** May be harmful if swallowed. Irritation to skin and eyes. Irritation by inhalation. Prolonged or repeated exposure can cause drying, defatting, or dermatitis of skin.

**Recommendations for immediate medical care/special treatment:** Show this safety data sheet to the doctor in attendance.

Note to Physician: Treat Symptomatically

### 5. Fire- Fighting Measures

**Extinguishing Media:** Use media appropriate of surrounding fire. Use dry chemical, CO<sub>2</sub>, water spray (FOG) or foam.

**Unsuitable Extinguishing Media:** Avoid solid water stream as it may be inefficient

**Special hazards arising from the substance or mixture:** Keep away from heat, sparks, and flame. Guard against spontaneous combustion of improperly discarded oily rags.

Hazardous Combustion Products: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). Thermal decomposition can lead to release of irritation and toxic gasses and vapors.

Sensitivity to Static Discharge: Take precautionary measures against static discharge.

**Protective Equipment and Precautions for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Firefighters should wear self-contained breathing apparatus. Smother to exclude air. Do not use water. Handle as an oil fire, Class B fire procedures.

**Further information:** If employees are expected to fight fires, they must be trained and equipped as stated in the OSHA Fire Brigades Standard (29 CFR 1910.156).

### 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:**

**Personal precautions:** Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Use personal protective equipment as required. Keep people away from up wind of spill/leak. Pay attention to flashback. Take precautionary measures against static discharge.

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewers.

**Methods and materials for containment and cleaning up:**

**Containment:** Prevent further leakage or spillage if safe to do so. Eliminate all ignition sources.

**Cleaning up:** Absorb spilled material with inert material such as sand or sawdust and sweep up. Do not hose spills down drains, sewers, or waterways. Keep in suitable, closed containers for disposal.

### 7. Handling and Storage

**Precautions for safe handling**

Ensure adequate ventilation, especially in confined areas. Keep away from heat, sparks, flame and other sources of ignition (i.e.: pilot lights, electric motors and static electricity). Take precautionary measures against static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when handling this product. Wear protective gloves/protective clothing and eye/face protection. Wash face, hands, and any exposed skin thoroughly after handling. Guard against spontaneous combustion of improperly discarded oily rags.

**Conditions for safe storage, including any incompatibilities**

Store locked up. Store away from incompatible materials. Store in a well ventilated area at temperature below 70° F. Keep container tightly closed in an upright position.

**Incompatible Materials**

Strong Oxidizing agents. Acidic agents.

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## 8. Exposure Controls/Personal Protection

### Engineering Controls

Good general ventilation (local exhaust) should be sufficient. Eyewash stations. Showers.

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
2-Butoxyethanol	TWA: 20 ppm 100 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 240 mg/m <sup>3</sup>	TWA: 5 ppm TWA: 24 mg/m <sup>3</sup>

### Personal protective equipment

Eye/face protection: Splash proof chemical safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with Oil Resistant gloves and apron. Wash and dry hands after use.

Respiratory protection: Under normal circumstances, no protective equipment is needed.

*Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).*

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Take off all contaminated clothing and wash it before reuse. Wash face, hands and any exposed skin thoroughly after handling.

## 9. Physical and Chemical Properties Section

### Information on basic physical and chemical properties

Physical State

Form: Liquid

Color: Orange

Odor: Citrus

Odor Threshold: Not Determined

pH: N/A Not an aqueous solution

Freezing Point/Melting Point: Not Determined

Initial Boiling Point/Range: >115°F / >100°C

Flash Point: >115°F / >46.1°C

Evaporation Rate (Butyl Acetate = 1): 0.2

Flammability: Not Determined

Lower Flammability or Explosive Limit: 6.1%

Upper Flammability or Explosive Limit: 0.7%

Vapor Pressure: As Water

Vapor Density: As Water

Specific Gravity (Water=1): 0.863

Solubility (Water): insoluble in water

Partition Coefficient: Not Determined

Auto Ignition Temp: Not Determined

Decomposition Temp: Not Determined

Viscosity: Non-viscous

**Other Safety Info:** Volatility (% wt.): 25%

*Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.*

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### 10. Stability and Reactivity

**Reactivity:** Not reactive under normal conditions.

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** When in contact with incompatible materials.

**Conditions to avoid:** Excessive heat, sparks and flames. Incompatible Materials.

**Incompatible materials:** Strong oxidizers and Acidic agents.

**Hazardous decomposition products:** Carbon monoxide. Carbon Dioxide. Smoke may be acrid and fumes irritating.

**Other decomposition products:** During fire, thermal decomposition can produce carbon monoxide (highly toxic) and carbon dioxide (an asphyxiant at sufficient concentrations).

### 11. Toxicological Information

#### Information on Toxicological Effects

##### Component toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
D-Limonene	4400 mg/kg ( Rat )	> 5g/kg ( Rabbit )	-
2-Butoxyethanol	745mg/kg ( Rat )	1250mg/kg ( Rat )	550 ppm ( Rat ) 4 h

#### Carcinogenicity

No components of this product are listed as carcinogens or potential carcinogens by ACGIH, IARC, NTP or OSHA.

#### Likely Routes of Exposure

Inhalation – Avoid breathing vapors or mists

Eye Contact – Causes serious eye irritation

Skin Contact – Causes skin irritation. May be absorbed through skin contact

Ingestion – Do not taste or swallow. Harmful if swallowed

#### Information on Physical, Chemical and Toxicological Effects

Symptoms – Irritating to skin, Irritating to eyes.

#### Delayed and Immediate Effects as well as Chronic Effects from Short and Long-term Exposure

Skin Corrosion/Irritation – Causes skin irritation.

Serious Eye Damage/Eye Irritation – Causes serious eye irritation

### 12. Ecological Information

#### Ecotoxicity:

Chemical Name	Algae/aquatic plants	Fish	Crustacea
D-Limonene 5989-27-5	-	LC50: flow-through Pimephales promelas 0.619 - 0.796 mg/L 96 h LC50: Oncorhynchus mykiss 35 96 h mg/L	-
2-Butoxyethanol 111-76-2	EC50: Pseudokirchneriella subcapitata 911 mg/l 72h	LC50: Oncorhynchus mykiss 1474 mg/l 96 h	EC50: Daphnia magna 1800 mg/L 48 h

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**Persistence and Biodegradability:** Not determined

**Bioaccumulative Potential:** Not determined

**Mobility in Soil:** Not determined

**Other Adverse Effects:** Not determined

### 13. Disposal Considerations

#### Waste treatment methods

**Product:** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging:** Disposal should be in accordance with applicable regional, national and local laws and regulations. Do not reuse container

### 14. Transport Information

#### DOT

Consumer Package Exemption - 12/Qt. Cases and 4/Gal

§173.150 Exceptions for Class 3 (flammable and combustible liquids)

#### For Non-exempt Shipments

UN number: 2319

Class: 3

Packing group: III

Proper shipping name: Terpene Hydrocarbons, N.O.S., (D-Limonene) 3, III

Reportable Quantity (RQ): 100 lbs.

**IATA (International Air Transport Association):** UN2319 Terpene Hydrocarbons, N.O.S., (D-Limonene) 3, III

**IMDG (International Maritime Dangerous Goods):** UN2319 Terpene Hydrocarbons, N.O.S., (D-Limonene) 3, III

Flash Point: 115°F / >46.1°C

### 15. Regulatory Information

#### Federal

TSCA: Components of this product are listed

DSL: Components of this product are listed

SARA 313: (Superfund Amendments and Reauthorization Act)

No ingredients of this product contain chemical (s) that are subject to reporting levels established by SARA Title III, Section 313.

#### States Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
2-Butoxyethanol (111-76-2)	X	X	X

#### Canada

WHMIS: This product is not a controlled product under WHMIS.

**Cleanerol™**

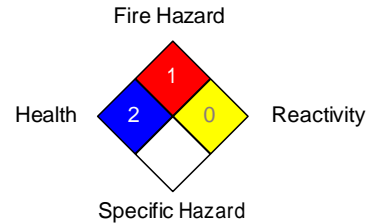
**16. Other Information**

**Revision Date:** 2019-09-24

**NFPA**

Health	2
Fire Hazard	1
Reactivity	0
Specific Hazard	

National Fire Protection Association (USA) NFPA



**HMIS**

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

Hazardous Material Information System HMIS

Health	2
Flammability	1
Physical Hazard	0
Personal Protection	

**Notice to Reader:**

*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.*