



SPECIALIZED LUBRICANTS

1. Substance/Product Identification

Product Name: 266 Citrol® Concentrate Bulk

**Company/Address: Schaeffer Mfg
102 Barton Street
Saint Louis, Missouri 63104
USA**

Synonyms:

Preparation/Revision Date: 08/01/2010

Product Use/Type: Citrus based water soluble degreaser

**Emergency Phone Number: +1 314 865-4105 (24-hour response number)
+ 1 314 865-4100 (Business hours 8:30AM-5:00PM)
1-800-325-9962 (US & Canada)**

Website: www.schaefferoil.com

MSDS Number: 266 Version 1.0

2. Hazards Identification

Appearance: Light yellow to orange color liquid

Odor: Citrus odor

Principal Hazards: Flammable, Irritation to eyes, skin and upper respiratory tract

**Hazardous Materials Information System
(U.S.A)**

**Health: 2
Fire: 2
Reactivity: 0**

**National Fire Protection Agency System
(U.S.A.)**

**Health: 2
Fire: 2
Reactivity: 0**

See Section 11 for complete health hazard information

Product Name: 266 Citrol Concentrate Bulk

3. Composition and Information on Ingredients

Hazardous Ingredients

Ingredient Name	CAS No.	EU Number	Percentage (by wt.)
D-Limonene	5989-27-5	227-813-5	30 - 50
Poly(oxy-1,2-ethanediyl),alpha-(nonylphenyl)-omega-hydroxy	9016-45-9	500-024-8	4 - 7
Cocoamide DEA	68603-42-9	271-657-0	5 - 7.5
Diethanolamine	111-42-2	203-868-0	0.95 - 3
2-butoxyethanol	111-76-2	203-905-0	10 - 15

4. First Aid Measures

Ingestion: Do not induce vomiting. Rinse mouth with water. Do not administer anything by mouth to an unconscious person. Do not leave victim unattended. Seek medical attention immediately

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids while flushing to rinse the entire surface of the eye and lids with water. Seek medical attention immediately

Inhalation: Remove to fresh air. If breathing is difficult administer oxygen. Seek medical attention immediately if upper respiratory tract irritation persists

Skin: Wash with plenty of soap and water. Launder contaminated clothing. Seek medical attention if skin irritation develops or persists.

Additional Information: Treat symptomatically and supportively

5. Fire Fighting Measures:

Flash Point: 128°F (53°C) PMCC

Extinguishing Media: Use water spray, dry chemical foam, or carbon dioxide. Use water spray to cool fire-exposed containers to prevent pressure build up, auto ignition or explosions

Firefighting Procedures: Wear full protective clothing and positive pressure breathing apparatus

Unusual Fire & Explosion: Vapors can be denser than air and travel back to ignition source

Hazards: Sensitive to static discharge

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6. Accidental Release Measures

Spill Procedures and Clean up methods: Eliminate sources of ignition. Contain spill and recover liquid when possible. Absorb spills with absorbent material. Use non-sparking tools and equipment. Keep out of drains, sewers, ditches and waterways.

Personal Precautions: Avoid contact with skin and eyes. Avoid inhalation of vapors. Wear appropriate personal protective equipment when cleaning up a spill

Environmental Precautions: This product should be kept out of watercourses and waterways. If spilled into waterways, watercourses, lakes or streams this material may be toxic to aquatic life.

7. Handling & Storage

Handling: Wash thoroughly after handling and before eating, smoking or using toilet facilities. Do not swallow product. Do not inhale vapors or mists.

Storage: Do not store product at elevated temperatures. Store product as a flammable or combustible liquid. Store in a cool dry place that has adequate ventilation. Do not store near food or feed products. Keep containers closed when not in use. Keep away from direct sunlight. Keep product from freezing.

8. Exposure Controls and Personal Protection

Occupational Exposure Limits

Ingredient	OSHA TWA	OSHA STEL	ACGIH TWA	ACGIH STEL
D-Limonene	NE	N/E	NE	N/E
Poly(oxy-1,2-ethanediyl),alpha-(nonylphenyl)-omega-hydroxy	N/E	N/E	N/E	N/E
Cocoamide DEA	N/E	N/E	N/E	N/E
Diethanolamine	3 ppm 15 mg/m ³		2 mg/m ³	
2-butoxyethanol	50 ppm		20 ppm	75 ppm

(s)-Skin exposure

(p) proposed limit

(c) – Ceiling limit

(l) Recommended exposure limit

(u) supplier limit

(N/E) – not established

Other Exposure Limits: None

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Engineering Controls: Local exhaust ventilation recommended if any vapors, dust or mists are generated. If exhaust

Personal Protective Equipment

Gloves: Chemical resistant gloves

Protective Clothing: Apron and long sleeves recommended

Eye Protection: Chemical resistant type goggles should be worn. Avoid wearing contact lenses.

Respiratory Protection: Airborne concentrations should be kept at the lowest levels possible. If any vapors or mists are generated and the occupational exposure limit of the product is exceeded, use appropriate NIOSH or MSHA approved respirator

9. Physical and Chemical Properties

Flash Point: 128°F (53°C) PMCC

Specific Gravity: 0.9366

Upper Flammable Limit (UEL): Not determined

Lower Flammable Limit (LEL): Not determined

Vapor Pressure: 17.5 mm, Hg @ 20°C

Vapor Density (air =1): Heavier than air

Percent Volatile: VOC content is 50 -55%

Evaporation Rate: Not determined

pH: 9-10

Boiling Point: 207°F (97°C)

Melting Point: Not applicable

Appearance: Light yellow to orange color liquid

Odor: Citrus odor

Solubility in Water: Emulsifiable

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise specified

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10. Stability and Reactivity

Stability: Stable under normal conditions

Materials to Avoid: Strong oxidizing and reducing agents and acids.

Polymerization: Will not occur

Thermal Decomposition: Carbon monoxide, carbon dioxide, aldehydes and ketones may be formed on burning.

Conditions to Avoid: None

11. Toxicological Information:

Routes of Exposure: Skin, eyes, ingestion and inhalation

Target Organs: skin, eyes, upper respiratory tract, kidney, liver, lymphatic system or central nervous system

Acute Exposure

Ingestion: May be harmful if swallowed. May cause abdominal discomfort, nausea and diarrhea

Eye Contact: May cause severe irritation, experienced as discomfort or pain, excess redness and swelling of the eye. Possible injury to the cornea

Skin Contact: Prolonged contact such as with clothing wetted with the product may cause severe irritation and discomfort that can be seen as redness and swelling.

Inhalation: Vapors or mists, especially as generated from heating the material or as exposure in poorly ventilated areas or confined spaces, may be irritating and cause discomfort in the nose, throat, nasal discharge and coughing.

Dermal Sensitization: May irritate skin of people with pre-existing conditions

Inhalation Sensitization: Sensitization properties are unknown. There are no known adverse effects that have been documented in humans as a result of chronic exposure.

Carcinogenicity: Product does not contain any components listed by ACGIH, IRAC, NIOSH, NTP or OSHA

Additional Toxicological Information: Chronic exposure to 2-butoxyethanol may cause kidney and/or liver damage

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11. Toxicological Information:

Acute Toxicity

Poly(oxy-1,2-ethanediyl),alpha-(nonylphenyl)-omega-hydroxy

Oral LD50: 2,000 to 5,000 mg/kg (rat)

Dermal LD50: 2,000 mg/kg (rabbit)

D-Limonene

Oral LD50: 5,600 mg/kg (mice)

4,400 mg/kg (rat)

Dermal LD50: >5,000 mg/kg (rabbit)

Inhalation LC50: >1,000 mg/kg (mice)

Cocoamide DEA

Oral LD50: >10,000 mg/kg (rat)

Diethanolamine

Oral LD50: 710 – 2,300 mg/kg (rat)

Dermal LD50: 12,000 mg/kg (rabbit)

2-Butoxyethanol

Oral LD50: 470 mg/kg (rat)

Dermal LD50: 220 mg/kg (rabbit)

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12. Environmental and Ecological Information

Ecotoxicity

Poly(oxy-1,2-ethanediyl),alpha-(nonylphenyl)-omega-hydroxy

LC50 (96 hours) – Typical aquatic toxicity rating is 1-15 ppm for ethoxylated nonylphenols. Moderately toxic to aquatic life.

Ethoxylated nonylphenols are considered to be endocrine disruptors in the EU

Diethanolamine

LC50 (96 hours) - >589 mg/l (Cyprindon variegatus)

LC50 (24 hours) - 5000 mg/l

LC50 (96 hours) - 1460 mg/l (Pimphalas promleus)

EC50 (24 hours) – 180 mg/l (Daphina magna)

Cocoamide DEA

LD50 (96 hours) – 2.6 to 13.76 mg/l (Fish, fresh water)

EC50 (48 hours) – 2.39 mg/l (Daphina pulex)

D-Limonene

LC50 (96 hour) - 80 – 88.7 mg/l (rainbow trout)

LC50 (48 hour) – 6.4 mg/l (Daphina magna)

2-Butoxyethanol

LC50 (96 hour) - >100 mg/l (fish)

Environmental Fate

Biodegradation: This product is biodegradable by the Modified OECD Sturm 301B Method

Bioaccumulation: This product is not expected to bioaccumulate

Water Class Hazard (Germany): WK-2 according to appendix 4 VwVwS dated 27.7.2005

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13. Disposal Considerations

Waste Handling and Disposal: Dispose of product in accordance with all applicable local, state, provincial and Federal rules and regulations. This product in its neat form is considered to be a RCRA hazardous waste due to its flammability (D001)

14. Transport Information

US DOT Classification Non-Bulk: 4gal/case – ORM-D

5 gallon, 30 gallon and 55 gallon - UN1993, Flammable Liquids, N.O.S., (D-limonene, 2-butoxyethanol), 3, PG III

US DOT Classification Bulk: UN1993, Flammable Liquids, N.O.S., (D-limonene, 2-butoxyethanol), 3, PG III

IMDG Classification: UN1993, Flammable Liquids, N.O.S., (D-limonene, 2-butoxyethanol), 3, PG III

IATA/ICAO Classification: 4gal/case – UN1993, Flammable Liquids, N.O.S., (D-limonene, 2-butoxyethanol), 3, PG III, Limited Quantity

5 gallon, 30 gallon and 55 gallon - UN1993, Flammable Liquids, N.O.S., (D-limonene, 2-butoxyethanol), 3, PG III

15. Regulatory Information

Hazard Symbols



(EU only due to presence of Ethoxylated nonylphenols)

Xi Irritant

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15. Regulatory Information

US Regulations

TSCA Inventory: All of the components in this material are on the US TSCA Inventory or are exempt.

State of California Proposition 65: This product does not contain any of the chemicals found on the State of California's Proposition 65 List as possible cancer causing agents or reproductive toxins.

US EPA SARA Title III and CERCLA Listings and Reportable Quantities

US EPA Section 311/313 Classifications

Acute (Immediate)	Chronic (Delayed)	Fire	Reactive	Pressure Generating
X		X		

US EPA Section 313 Chemicals

This product contains 10 – 15% 2-Butoxyethanol

US Tariff Heading Number: 3402.90.5030

Schedule B Number: 3402.90.5030

Other Regulations:

Canada: All of the ingredients of this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substance List

Canadian WHMIS Classifications and Symbols:



EEC: All components are in compliance with the EC Seventh Amendment Directive 92/32/EEC

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16. Other Information

This product when used at a dilution ration of 1:15 meets the State of California's Air Resources Board VOC regulations

For additional information call +1 314-865-4100 (outside the US and Canada) or 1-800-325-9962 inside the United States and Canada.

Although the information and recommendations set forth herein (hereafter referred to as information) are presented in good faith and believed to be accurate and factual as of the date hereof, Schaeffer Mfg. Company makes no representation as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving the same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Schaeffer Mfg. Company be responsible for damages of any natures whatsoever resulting from the use or reliance upon information. **No representation or warranty, either expressed or implied, of merchantability or fitness for a particular purpose is made with respect to information of the product to which the information refers. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.**