



SPECIALIZED LUBRICANTS

1. Substance/Product Identification

Product Name: 738 Citrol® X
Company/Address: Schaeffer Mfg
102 Barton Street
Saint Louis, Missouri 63104
USA

Synonyms:

Preparation/Revision Date: 10/20/2012

Product Use/Type: Citrus based water soluble degreaser and cleaner

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: 738 Version 1.0

2. Hazards Identification

Appearance: Pinkish orange color liquid

Odor: Citrus odor



Principal Hazards: WARNING! CONTACT WITH EYES CAN CAUSE SEVERE IRRITATION. BREATHING MIST OR VAPORS CAN CAUSE IRRITATION OF THE UPPER RESPIRATORY TRACT. PROLONGED OR REPEATED CONTACT WITH SKIN MAY CAUSE IRRITATION AND REDNESS TO SKIN. MAY BE HARMFUL IF SWALLOWED. MAY CAUSE ALLERGIC SKIN REACTION. TOXIC TO AQUATIC ORGANISMS

Avoid contact with eyes. Do not ingest. Avoid prolonged or repeated contact with skin. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Avoid contact of any spilled material and runoff with soil and surface waters. See Section 11 for complete health hazard information

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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	10 -50
Poly(oxy-1,2-ethanediyl),alpha-(nonylphenyl)-omega-hydroxy	9016-45-9	500-024-8	1-5
Cocoamide DEA	68603-42-9	271-657-0	1 -6
Diethanolamine	111-42-2	203-868-0	0.5 – 3.5
Ethanol	64-17-5		0.1-0.5
2-butoxyethanol	111-76-2	203-905-0	1 -10

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 supportive

5. Fire Fighting Measures:

Flash Point: 135°F (57°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

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6. Accidental Release Measures

Spill Procedures and Clean up methods: Eliminate sources of ignition. Contain spills and recover liquid if possible using an electronically protected vacuum cleaner or wet-brushing. Spills are very slippery and should be cleaned up promptly. Absorb spills with absorbent material. Use non-sparking tools and equipment. Keep out of drains, sewers, ditches and waterways. Place spent material in appropriate containers for disposal in accordance with all applicable Federal, National, State, Provincial and local laws and regulations. After material has been removed flush contaminated area with large amounts of water.

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 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.

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8. Exposure Controls and Personal Protection

Occupational Exposure Limits

Ingredient	OSHA PEL or 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
Ethanol	1900 mg/m ³ 1000 ppm		1000 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

Engineering Controls: Local exhaust ventilation recommended if any vapors, dust or mists are generated. . If applicable use process enclosures, local exhaust ventilation and other engineering controls to maintain airborne levels below recommended exposure limits.

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

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9. Physical and Chemical Properties

Flash Point: 135°F (57°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 40%

Evaporation Rate: Not determined

pH: 9-10

Boiling Point: 207°F (97°C)

Melting Point: Not applicable

Appearance: Pinkish 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

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

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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

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)

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11. Toxicological Information:

Acute Toxicity

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)

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 (Dapina 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 not considered to be a United States EPA RCRA hazardous waste.

14. Transport Information

US DOT Classification Non-Bulk: 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, Marine Pollutant, (D-Limonene, Nonylphenol Ethoxylated),

IMDG Classification: UN1993, Flammable Liquids, N.O.S., (D-Limonene, 2-Butoxyethanol), 3, PG III, Marine Pollutant, (D-Limonene, Nonylphenol Ethoxylated),

IATA/ICAO Classification: UN1993, Flammable Liquids, N.O.S., (D-Limonene, 2-Butoxyethanol), 3, PG III, Marine Pollutant, (D-Limonene, Nonylphenol Ethoxylated),

15. Regulatory Information

Hazard Symbols

GHS



H303 May be harmful if swallowed

H315 Causes skin irritation

H317 May cause an allergic skin irritation

H319 Causes serious eye irritation

H400 Toxic to aquatic life

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15. Regulatory Information

US Regulations

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

State of California Proposition 65: This product contains cocoamide DEA and diethanolamine, which has been found by the State of California and is listed on the California Proposition 65 List as possible cancer causing agents or reproductive toxins.

State of California CARB VOC regulations:

This product when used at a dilution ratio of 1:10 meets the State of California's Air Resources Board's VOC regulations

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

US EPA Section 313 Chemicals

This product contains 1 – 10% 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

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

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

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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.**