



MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Citra-Clean Liquid		MSDS #0269					
PRODUCT NUMBER: 16-484		DATE: November 6, 2009					
TRADE NAME: Citra-Clean Liquid GENERAL USE: general cleanser CHEMICAL FAMILY: Terpene based PRODUCT DESCRIPTION: Colorless to pale yellow liquid with a citrus odor.		 <p>Patch Rubber Company <small>A Myers Industries Company</small></p>					
MANUFACTURER: Patch Rubber Company							
ADDRESS (NUMBER, STREET, P.O. BOX): PO Box H		DATE PREPARED: November 6, 2009					
(CITY, STATE AND ZIP CODE): Roanoke Rapids, NC 27870		SUPERSEDES: New Issue					
COUNTRY: USA		CHEMTEL 24-HOUR EMERGENCY TELEPHONE NUMBERS					
TELEPHONE NUMBER (General Inquiries): 01-(252) 536-2574		 <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">1-800-255-3924</td> <td style="text-align: center;">01-(813)-248-0585</td> </tr> <tr> <td style="text-align: center;">North America (Toll Free)</td> <td style="text-align: center;">International and Local Calls</td> </tr> </table>		1-800-255-3924	01-(813)-248-0585	North America (Toll Free)	International and Local Calls
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SECTION 2 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Warning! Flammable liquid and vapor. May cause respiratory tract irritation. May cause allergic skin reaction in susceptible individuals. May cause eye and skin irritation. D-Limonene component is considered as a potential aquatic pollutant; do not discharge into bodies of water. Target Organs: Skin. Product is 100% bio-based and is generally recognized as safe (GRAS) rated.

POTENTIAL HEALTH EFFECTS

INHALATION:
May cause respiratory tract irritation with coughing and headache.

SKIN:
Causes mild skin irritation in some individuals. May cause skin sensitization, an allergic reaction, which becomes evident upon reexposure to this material. Prolonged and/or repeated contact may result in moderate skin irritation, including defatting of the skin and chemical dermatitis.

EYES:
Causes moderate to severe eye irritation; may result in chemical conjunctivitis in severe exposures.

INGESTION:
May cause digestive tract disturbances, including nausea, vomiting, and diarrhea.

CARCINOGENICITY:

NTP? NO	IARC MONOGRAPHS? NO	OSHA REGULATED? NO
CALIFORNIA, Prop.65?	NO	ESIS? NO

SECTION 3 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
d-Limonene*	NR	5989-27-5	227-813-5	Xi, N	R10, R38, R43, R50/53
Citrus Terpenes*	NR	94266-47-4	304-454-3	None	None

* - Product is citrus terpene oils; d-Limonene is the major constituent of this natural product. This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 1997/2006/EEC (REACH). Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European (GHS) directive 1997/2006/EEC (REACH) and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directive 67/548/EEC.

SECTION 4 - FIRST AID MEASURES

INHALATION:
Move affected person into fresh air. If person is not breathing or is experiencing severe difficulties, call emergency services (911), then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

EYES:
Hold eyes open and rinse slowly and gently with eye wash solution (saline preferred) or potable water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Seek medical assistance for severe cases.

SKIN:
Remove all contaminated clothing. Rinse skin immediately with plenty of water. Seek medical attention for severe/persistent cases.

INGESTION:
Call Poison Control (Toll-Free at 1-800-222-1222 within the USA), emergency services (911), or physician immediately for treatment advice. Offer victim water if conscious and able to swallow. Do not induce vomiting except under medical instructions from physician or Poison Control. Do not give anything by mouth to an unconscious person.

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SECTION 5 - FIRE FIGHTING MEASURES

GENERAL HAZARDS:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH or European EN149 (approved or equivalent), and full protective gear. Containers may explode in the heat of a fire. Flammable liquid and vapor. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. This liquid floats on water and may travel to a source of ignition and spread fire.

EXTINGUISHING MEDIA:

Use water fog, Carbon Dioxide, Foams, or Dry Chemical - choose extinguishing media to fight surrounding fire.

FIRE FIGHTING PROCEDURES:

Firefighters should wear self-contained breathing apparatus and turn-out gear when fighting any chemical fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

HAZARDOUS COMBUSTION PRODUCTS:

Carbon monoxide, carbon dioxide, and acrid vapors.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Use proper personal protective equipment as indicated in Section 8. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Forms smooth, slippery surfaces on floors, posing an accident risk. Remove all sources of ignition. Provide ventilation.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Ground and bond containers when transferring material under cool, dry conditions to avoid static discharge resulting in ignition. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and pose hazards. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor or mist. **Storage:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well ventilated area (Flammables area) away from incompatible substances. Separate from oxidizing materials. If long term storage is required, partially filled containers should be blanketed with nitrogen to prevent peroxide formation.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

HAZARDOUS COMPONENTS	NIOSH				ACGIH		OSHA	
	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	TLV/TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
d-Limonene	30 ppm TWA (8 hours) - American Industrial Hygiene Association Standard							
Citrus Terpenes	30 ppm TWA (8 hours) - American Industrial Hygiene Association Standard							

PERSONAL PROTECTION

RESPIRATORY PROTECTION:

Not required for normal work situations where adequate ventilation is provided. Use NIOSH or EN-149 approved self contained, positive pressure respirators for emergencies and in situations where air may be displaced by vapors. Follow OSHA or EU rules.

PROTECTIVE GLOVES:

Impervious protective gloves are recommended. Neoprene or nitrile gloves are suggested glove materials.

EYE PROTECTION:

Safety glasses are required; for handling large (drum) quantities, a face shield should be used.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Apron or chemical suit suggested for handling large quantities. Eyewash should be present as good industrial hygiene practice.

WORK / HYGIENIC PRACTICES:

Wash hands with soap and water after contact, and before eating, drinking, using tobacco, or using the restroom. Use emollient cleanser for mild dryness of skin.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR Colorless to pale yellow liquid with a citrus odor.	VAPOR PRESSURE <2mmHg @ 68°F (20°C)
pH NA	SPECIFIC GRAVITY (WATER = 1) 0.838 to 0.843 @ 68°F (20°C)
BOILING POINT 349°F (176°C)	SOLUBILITY IN WATER Insoluble
FLASH POINT >110°F (43°C)	VISCOSITY NA
FLAMMABLE LIMITS LEL: 0.70% UEL: 6.10%	VAPOR DENSITY (AIR = 1) NR
AUTO-IGNITION TEMPERATURE 458°F (237°C)	EVAPORATION RATE (n-Butyl Acetate = 1) 0.2

VOLATILE ORGANIC COMPOUND (VOC) INFORMATION

>95% by volume.

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SECTION 10 - STABILITY AND REACTIVITY

STABILITY Product is stable under normal conditions.	CONDITIONS TO AVOID: Extreme temperatures, incompatible materials (see below)
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers	
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Hydrocarbons, carbon oxides, small amounts of sulfur, phosphorous, and nitrogen oxides	
HAZARDOUS POLYMERIZATION: Will not occur.	CONDITIONS TO AVOID: None Related to Hazardous Polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
d-Limonene	5989-27-5	Oral, mouse: LD50 = 5600 mg/kg Oral, rat: LD50 = 4400 mg/kg	NE
	227-813-5		
Citrus Terpenes	94266-47-4	Oral, Rabbit: LD50 > 5 g/kg	Inhalation, Mouse; Sensory Irritation: RD50> 1g/kg
	304-454-3		


SECTION 12 - ECOLOGICAL INFORMATION

No test information available. Citrus terpenes volatilize rapidly, no appreciable bioconcentration is expected in the environment. Some studies have identified d-Limonene as a marine pollutant with specific toxicities to some marine species such as brine shrimp. This product is expected to be readily biodegradable.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:
 Dispose of in accordance with Local, State, and Federal Regulations. Product is not defined or designated as hazardous by current provisions of the Federal (EPA) Resource Conservation and Recovery Act (RCRA, 40CFR261). Incinerate waste product when in liquid form (i.e., as supplied) in a properly permitted (approved) incineration facility. Do not flush to sanitary sewer or waterway; do not dispose of liquid product in landfill. According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: None (USA Ground), Terpene Hydrocarbons, N.O.S. (Air/Water/International/Bulk)	
DOT HAZARD CLASS / Pack Group: None-USA Ground under 119 Gal : Flammable 3 / PG III for air/ocean/bulk shipments REFERENCE: 49CFR UN / NA IDENTIFICATION NUMBER: UN2319 LABEL: Flammable - See Above	IATA HAZARD CLASS / Pack Group: Flammable 3, PGIII, 60L passenger total per pkg. , 220L cargo only aircraft total per package. IMDG HAZARD CLASS: Flammable 3 RID/ADR Dangerous Goods Code: Flammable 3, PGIII UN TDG Class / Pack Group: 3/PGIII Hazard Identification Number (HIN): 30 (EAC 3Y)
HAZARD SYMBOLS:	

Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

SECTION 15 - REGULATORY INFORMATION

TSCA (USA - Toxic Substance Control Act):	All components are listed under TSCA.
SARA TITLE III (USA - Superfund Amendments and Reauthorization Act):	
Acute Health: YES Fire: YES Reactive: NO	Chronic Health: NO Sudden Release of Pressure: NO
SARA 313 REPORTABLE INGREDIENTS: None	
CERCLA (USA - Comprehensive Response Compensation and Liability Act):	No reportable ingredients.
California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986:	No reportable ingredients.
CPR (Canadian Controlled Products Regulations):	WHMIS Classification D2B.
IDL (Canadian Ingredient Disclosure List):	
DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List):	Listed on DSL/NDSL.

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SECTION 15 - REGULATORY INFORMATION Continued

EINECS (European Inventory of Existing Commercial Chemical Substances): **Referenced.**

WGK Water Quality Index: **3**

RISK PHRASES:	SYMBOL(S) REQUIRED FOR EU LABEL	SAFETY PHRASES:
<p>R10 Flammable. R38 Irritating to skin. R43 May cause sensitisation by skin contact. R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p>		<p>S2 Keep out of the reach of children. S24 Avoid contact with skin. S37 Wear suitable gloves. S60 This material and its container must be disposed of as hazardous waste. S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.</p>

SECTION 16 - OTHER INFORMATION

Legend:

- ACGIH - American Congress of Government Industrial Hygienists**
- CAS - Chemical Abstracts Service**
- EINECS - European Inventory of Existing Commercial Chemical Substances**
- HMIS - Hazardous Materials Identification System**
- IARC - International Agency for Research on Cancer**
- NA - Not Available NE - Not Established**
- ND - Not Determined NR - Not Reported**
- NIOSH - National Institute for Occupational Safety and Health**
- NTP - National Toxicology Program**
- OSHA - Occupational Safety and Health Administration**

HMIS HAZARD RATINGS	HEALTH: FLAMMABILITY: PHYSICAL HAZARD: PERSONAL PROTECTIVE EQUIPMENT:	2 2 0 B	0 = INSIGNIFICANT 1 = SLIGHT 2 = MODERATE 3 = HIGH 4 = EXTREME
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REVISION SUMMARY: Authored 6 November 2009 to GHS protocols. JTV/LB

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.