



MATERIAL SAFETY DATA SHEET

LPS[®] EM Citro

Emulsion Degreaser (Aerosol)

Revision: 7

Revision Date: 06/16/09

Supersedes: 08/07/07

Section 1 • Product and Company Identification

Product Name: LPS[®] EM Citro *Emulsion Degreaser (Aerosol)*
Part Number: 02820, C02820
Chemical Name: Hydrocarbon / water emulsion
Product Use: LPS[®] EM Citro Emulsion Degreaser Aerosol is a water/ solvent emulsion cleaner designed to remove grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive and miscellaneous metallic parts.

Manufacturer Information: LPS Laboratories, 4647 Hugh Howell Rd., Tucker, GA, USA 30084
TEL: 1 770-243-8800

Emergency Telephone Number: 1-800-424-9300 Chemtrec;
Outside U.S.: (703) 527-3887

FAX: 1 770-243-8899
Website: <http://www.lpslabs.com>

PLAIN LANGUAGE HAZARD SUMMARY

Material Safety Data Sheets can be confusing. Federal and State laws require us to include a great deal of technical information that probably will not help the non-professional. LPS includes this "PLAIN LANGUAGE HAZARD SUMMARY" to address the questions and concerns of the average worker. If you have additional health, safety or product questions, do not hesitate to call us at 1 770 243 8800.

Worker Toxicity

LPS[®] EM CITRO is designed to remove grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive and miscellaneous metallic parts. It contains d-limonene and aliphatic hydrocarbons that can be irritating to skin. We suggest you wear gloves and avoid extended exposure to unprotected skin. Don't get it in your eyes (it stings), or breath large amounts of the vapor, (it will dry out your nasal passages and if you breathe large amounts in poorly ventilated areas it can make you dizzy and even sick). Don't spray LPS[®] EM CITRO for extended periods without adequate ventilation. If you're going to perform work involving a lot of product in a poorly ventilated area, use of a respirator or even a self-contained breathing apparatus may be necessary. For more exposure and first aid information, refer to MSDS Sections 2, 8 and 11.

Flammability

Because LPS[®] EM CITRO is a water-based emulsion, it has reduced flammability under normal circumstances. However, because the aerosol uses an extremely flammable propellant (much like the propane gas used for a "gas-grill"), you should be aware of what is going on around you. Do not spray a lot of product if welding, grinding or other ignition sources are present in your immediate vicinity. DO NOT spray onto live electrical equipment.

Disposal

Spent or spilled LPS[®] EM CITRO should not be dumped down a drain. Empty and depressurized aerosols aren't hazardous. Collect any spilled material and dispose of properly. See section 13 for more details.



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Section 2 • Hazards Identification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Emergency Overview: DANGER: Flammable. Contents under pressure. Harmful or Fatal if Swallowed.

Primary route(s) of entry: Skin and Eye contact. Inhalation.

Potential Acute Health Effects:

Eyes: Irritating to eyes

Skin: Repeated exposure may cause skin dryness or cracking.

Inhalation: Excessive inhalation of vapors can cause irritation of the respiratory tract, nausea, dizziness or headache.

Ingestion: Product has a low order of acute oral toxicity, but ingestion of large quantities may cause nausea, vomiting, and gastrointestinal irritation. May cause injury if aspirated into lungs.

Potential Chronic Health Effects:

Carcinogenic Effects: NTP: No IARC: No OSHA: No

Mutagenic Effects: None

Teratogenic Effects: None

Medical conditions aggravated by exposure: Persons with pre-existing central nervous system (CNS) disease, neurological conditions, skin disorders, chronic respiratory diseases, or impaired liver or kidney function should avoid exposure.

Signs and Symptoms

Stinging in eyes. Repeated or prolonged skin contact can cause redness, irritation, and scaling of the skin (dermatitis). Breathing of high vapor concentrations may cause headaches, stupor, irritation of throat and eyes, and kidney effects.

Section 3 • Composition / Information on Ingredients

Component	CASRN	Weight Percent
Propane/Isobutane propellant	68476-85-7	5 - 10%
Aliphatic Hydrocarbon	64742-47-8	20 - 30%
d-limonene	5989-27-5	1-5%

*The remaining ingredients of this preparation are not classified as hazardous per 29 CFR 1920.1200 Subpart Z



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Section 4 • First Aid Measures

- Eyes:** Check for and remove contact lenses. If irritation or redness develops, flush eyes with cool, clean, low pressure water for at least 15 minutes. Hold eyelids apart to ensure complete irrigation of the eye and eyelid tissue. Do not use eye ointment. Seek medical attention immediately.
- Skin:** Remove contaminated shoes and clothing. Clean affected area thoroughly with mild soap and water. Do not use ointments. Seek medical attention if irritation persists.
- Inhalation:** Immediately move victim to fresh air. If victim is not breathing, immediately begin rescue breathing. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). If breathing is difficult, seek medical attention immediately.
- Ingestion:** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. If victim is drowsy or unconscious, place on the left side with head down. Do not leave victim unattended. Seek medical attention immediately.

Section 5 • Fire Fighting Measures

Products of Combustion: Carbon monoxide and carbon dioxide.

Firefighting media: SMALL FIRE: Use DRY chemical powder.

LARGE FIRE: Use water spray, fog or foam. Cool containing vessels with water jet in order to prevent pressure build-up, auto ignition or explosions.

Sensitivity to Impact: None.

Sensitivity to Static Discharge: Yes. See sections 6, 7, 8 and 15.

Protection Clothing (Fire): Firefighters must use full bunker gear including NIOSH-approved positive pressure self-contained breathing apparatus to protect against potential hazardous combustion or decomposition products and oxygen deficiencies. Evacuate area and fight the fire from a maximum distance or use unmanned hose holders or monitor nozzles.

Special Remarks on Explosion Hazards: Aerosols may explode upon heating, spread fire and overcome sprinkler systems.

Section 6 • Accidental Release Measures

- | | | |
|-------------------------------|---|--|
| Containment Procedures | Small Spill and Leak: | Eliminate ignition sources. Absorb with an inert material and dispose of properly. |
| | Large Spill and Leak: | Eliminate ignition sources, secure the area and control access. Dike far ahead of a liquid spill to ensure complete collection. Pick up free liquid for disposal using absorbent pads, sand, or other inert non-combustible absorbent materials. Place into appropriate waste containers for later disposal. |
| Clean-Up Procedures | Recover free product and place in suitable container for disposal. | |
| Evacuation Procedures | Ventilate area of leak or spill. Keep unnecessary and unprotected people away. | |
| Special Procedures | Remove all sources of ignition. Ventilate area. Wear appropriate protective equipment during cleanup. | |



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Section 7 • Handling and Storage

Handling: DO NOT spray into or around ignition sources. After handling, always wash hands thoroughly with soap and water. Use only with adequate ventilation. Avoid breathing vapors or spray mists.

Storage: Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store below 120°F.

Precautions to be taken in handling and storage: *Store aerosols as Level 1 Aerosol (NFPA 30B).* Store all materials in dry, well-ventilated area. Avoid breathing vapors.

Section 8 • Exposure Controls / Personal Protection

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEEL	NIOSH REL
Propane/Isobutane	68476-85-7	1,000 ppm	Not established	1,000 ppm	Not established	1000 ppm
Aliphatic Hydrocarbon	64742-47-8	100 ppm* 525 mg/m ³ *	Not Established	Not Established	Not Established	Not Established
d-limonene	5989-27-5	Not Established	Not Established	Not Established	Not established	Not established

Engineering Controls: Provide local and/or general exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Personal protective equipment

Eye protection Safety glasses with side shields conforming to appropriate regulations. Eye wash fountain and emergency shower facilities are recommended.

Hand protection Normally no hand protection is required; however, if product will be sprayed for an extended period, "overspray" onto skin may occur. If so, use chemical resistant gloves (i.e., nitrile, neoprene, buna) conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves.

Respiratory protection Typical use of this product under normal conditions does not require the use of respiratory protection. If airborne concentrations are above the applicable exposure limits (listed above), use NIOSH approved respiratory protection (i.e., organic vapor cartridge).

General Hygiene Considerations Wash thoroughly after handling. Have eye-wash facilities immediately available.



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LPS[®] EM Citro

Emulsion Degreaser (Aerosol)

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Section 9 • Physical and Chemical Properties

Appearance:	Liquid	Color:	White
Odor:	Mild Orange	Vapour Pressure:	> 220 mmHg @ 20°C
Solubility Description:	100%	Evaporation Rate:	1 (Water =1)
Boiling Point:	94.4°C (202°F) dispensed liquid	Flash Point:	79.4°C (175°F) dispensed liquid
Specific Gravity (Water=1):	0.75-0.78 @ 20 °C	Flash Point Method:	Tag-Closed Cup.
Vapour Density (air=1):	> 1	Auto Ignition Temperature:	Not Established
V.O.C. Content:	9.89%, 92 g/L, 0.77 #/gal Per CARB/OTC/EPA Definition	Partition Coefficient (octanol/water):	<1
Flammable limits (estimated):	LOWER: Not Established UPPER: Not Established	Viscosity:	20 - 30 cps @ 20°C
pH:	6.5 – 7.0	Volatiles:	97.4%

Section 10 • Stability and Reactivity

Stability and Reactivity: The product is stable.

Incompatibility with Various Substances: Extremely reactive or incompatible with oxidizing agents.

Hazardous decomposition products: These products are carbon oxides (CO, CO₂)

Hazardous polymerization: Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

Following exposure to vapors, this material can produce central nervous system depression. High atmospheric concentrations can result in eye, nasal and respiratory tract irritation. However, if handled in accordance with good industrial hygiene practice, this product will not present a significant hazard in the workplace.

Ingredients	CASRN	LC-50	LD-50
Aliphatic Hydrocarbon	64742-47-8	>6.8 mg/L (Supplier Data)	>5 g/kg (Supplier Data)
d-limonene	5989-27-5	Not established	>5000 mg/kg oral/rabbit >5000 mg/kg dermal/rabbit
Propane/Isobutane	68476-85-7	Not available	Not appropriate



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Section 12 • Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil. **Persistence and degradability:** Slightly biodegradable.

Bioaccumulative potential: Minimal bioaccumulation potential **Other adverse effects:** None known.

Ecological studies have not been conducted for this product. The following information is available for component(s) of this product.

Ecotoxicity:

Component	CASRN	Test	Species	Results
Aliphatic Hydrocarbon	64742-47-8	96-hr LC ₅₀	Oncorhynchus mykiss	3200 µg/L
d-limonene	5989-27-5	4-day LC ₅₀	Oncorhynchus mykiss	35,000 µg/L
		96-hour EC ₅₀	Pimephales promelas	1,490,000 µg/L
Propane / Isobutane	68476-85-7	Not Available		

Section 13 • Disposal Considerations

Waste Status: Aerosol products, if depressurized and emptied to less than 2.5 cm of fluid contents are classified as non-hazardous waste under 40 CFR 261.7 (U.S.). If disposed of in its received form, this item carries waste codes D001 and D003. (U.S.)

Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information inaccurate, incomplete, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive than federal laws and regulations.



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Section 14 • Transport Information

D.O.T. Ground	Shipping Name:	ORM-D	UN Number:	NA
	Hazard Class:	NA	Technical Name:	NA
	Subclass:	NA	Hazard Label:	ORM-D Already on box
Road/Rail - ADR/RID	UN no:	1950	ADR Class:	2.1
	Packing group:	NA	Classification code:	5F
	Name and Description:	AEROSOLS, Flammable	Hazard ID no:	NA
	Labeling:	2.1		
IMDG-IMO	UN no:	1950	Class:	2.1
	Shipping Name:	AEROSOLS	Subsidiary Risk:	NA
	Packing Instructions:	NA	Packing group:	NA
	Marine pollutant:	NO	EmS:	F-D, S-U
IATA-ICAO	UN no:	1950	Class:	2.1
	Shipping Name:	AEROSOLS, Flammable	Subclass	NA
	Packing instructions:	NA	Packing group:	NA
	Labeling:	Flammable Gas		

Section 15 • Regulatory information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001, D003

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): None

Toxic Substances Control Act (TSCA):

All components of this product are TSCA inventory listed and/or are exempt.

Superfund Amendments and Reauthorization Act (SARA) Title III SARA Section 311/312 (40 CFR 370) Hazard Categories: Sudden Release of Pressure, Fire Hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard.

This product contains the following toxic chemical(s) subject to reporting requirements of SARA Section 313 (40 CFR 372): No individual section 313 component is present at or above 1%.

Section 112 Hazardous Air Pollutants (HAPs): None



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State Regulations

California: This product does not contain chemical(s) known to the State of California to cause cancer, birth defects or reproductive harm.

California and OTC States: This product conforms to consumer regulations.

New Jersey Right to Know:

Water 7732-18-5 • Propane/Isobutane Propellant 68476-85-7 • Aliphatic Hydrocarbon 64742-47-8 • d-limonene 5989-27-5 • Sorbitan monooleate 1338-43-8

International Regulations

Canadian Environmental Protection Act: All of the components of this product are included on the Canadian Domestic Substances list (DSL).

Canadian Workplace Hazardous Materials Information System WHMIS:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS Classification: Class A, Class B5, Class D2B



Other Regulations

Montreal Protocol listed ingredients: None.
 Stockholm Convention listed ingredients: None.
 Rotterdam Convention listed ingredients: None.
 RoHS Compliant: Yes.

Section 16 • Other Information

MSDS#12820 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA Flammability Health Reactivity
	Health:	1	Health:	[1]	
	Flammability:	3	Flammability:	2	
	Reactivity:	0	Physical Hazard:	2	

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. 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.

Clea L Johnson, Regulatory Affairs Coordinator
 LPS Laboratories
 A division of Illinois Tool Works