



MATERIAL SAFETY DATA SHEET

LPS® G-49™

Orange Degreaser Low VOCs

Revision 2

Revision Date: 6/30/09

Supersedes: 5/7/09

Section 1 • Product and Company Identification

Product Name:	LPS® G-49™ Orange Degreaser Low VOCs
Part Number:	06420, C06420
Chemical Name:	Acetone/ Hydrocarbon mixture
Product Use:	A solvent designed to remove grease, grime, oil and other oil-based contaminants.
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® G-49™ Orange Degreaser Low VOCs is designed to remove grease, grime, oil and other oil-based contaminants. It contains d-Limonene and petroleum distillates that can be irritating to skin. We suggest you wear gloves and avoid extended exposure to unprotected skin. Do not 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® G-49™ Orange Degreaser Low VOCs for extended periods without adequate ventilation. If you are 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

LPS® G-49™ Orange Degreaser Low VOCs generates a "flame extension" when sprayed into an ignition source (flame, arc, etc.). It is extremely flammable, having an NFPA flammability rating of "3" ("3" represents the flammability of many paint thinners. "4" represents the flammability of LPG – "gas grill fuel"). Store product away from heat sources and do not spray into or around ignition sources (welding, grinding, pilot lights, live electric equipment, etc.).

Disposal

If you spill LPS® G-49™ Orange Degreaser Low VOCs, notify the proper environmental or safety department at your company right away. If LPS® G-49™ Orange Degreaser Low VOCs becomes contaminated with another substance and is rendered unusable for cleaning, the resulting mixture will fall under at least one hazardous classification. 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: Extremely 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: Prolonged or repeated skin contact with liquid may cause defatting resulting in drying, redness and possible blistering. This product contains citrus d-Limonene – a skin sensitizing agent.

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 known

Teratogenic Effects: See Section 11

Target Organ Effects: See Section 11

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. Also Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions), blood-forming system.

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. Other symptoms of exposure may also include stomach or intestinal upset (nausea, vomiting, and diarrhea), irritation (nose, throat, and airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, high blood sugar, coma.

Section 3 • Composition / Information on Ingredients

Component	CASRN	Weight Percent
Acetone	67-64-1	70 - 90%
Distillates Petroleum, Hydrotreated Light	64742-47-8	1 - 10%
d-Limonene	5989-27-5	1 - 10%
Carbon dioxide	124-38-9	4 - 6%



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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

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.



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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 personal protective equipment recommended in section 8.

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 49°C (120°F).

Precautions to be taken in handling and storage: *Store aerosols as Level 3 Aerosol (NFPA 30B).* Store all materials in dry, well-ventilated area. Avoid breathing vapors.

Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA TWA-PEL	OSHA STEL	ACGIH-TLV	ACGIH-STEL	NIOSH REL
Acetone	67-64-1	1000 ppm	Not Established	500 ppm	750 ppm	250 ppm
Distillates (Petroleum), Hydrotreated Light	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
Carbon dioxide	124-38-9	5000 ppm	Not Established	5000 pm	30000 ppm	NIOSH REL 5000 ppm NIOSH STEL 30000 ppm

*Supplier guidelines



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

Personal Protection:

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

Hand protection: Use protective gloves (i.e., acetone resistant, neoprene) conforming to appropriate regulations. Please observe the instructions regarding permeability and breakthrough time that are provided by the supplier of the gloves. Take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion and the contact time.

Respiratory protection: A NIOSH-approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (listed above). Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, when exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

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

Section 9 • Physical and Chemical Properties

Appearance:	Liquid.	Color:	Colorless / water-white
Odor/Taste:	Acetone/Slight Orange	Rule 1171 PPc:	0.09 mmHg at 20°C
Solubility Description:	80% w/w in water	Total Composite Vapor Pressure:	3728 mmHg at 20°C
Boiling Point:	56°C (133°F) dispensed liquid	Evaporation Rate:	0.15 (BuAc=1)
Specific Gravity (Water=1):	0.79 - 0.81 @ 20 °C	Flash Point:	> -18°C (0°F) dispensed liquid
Vapor Density (air=1):	2.2	Flash Point Method:	Tag-Closed Cup.
V.O.C. Content:	9.45%, 75.7 g/L, 0.6 #/gal Per CARB/OTC/EPA definition	Partition Coefficient (octanol/water):	<1
Flammable limits (estimated):	LOWER: 0.7% UPPER: 6%	Volatiles:	100%
Viscosity:	Not Established	Auto Ignition Temperature (°C):	Not Established
pH:	Not applicable		



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Section 10 • Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from heat and ignition sources. Exposure to direct sunlight for extended periods. Temperatures in excess of 50°C(122°F).
Incompatibility:	Extremely reactive or incompatible with oxidizing agents.
Hazardous Decomposition:	Combustion will generate smoke, possibly thick and choking, resulting in zero visibility and combustion products include carbon monoxide and carbon dioxide.
Hazardous Polymerization:	Will not occur.

Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

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. An acute toxicity study of this product has not been conducted. Information given in this section relates only to individual constituents contained in this preparation.

B: Component Analysis

Component	CASRN	LC-50	LD-50
Acetone	67-64-1	50100 mg/m ³ /8hr. rat	5500 mg/kg rat/oral 20000 mg/kg rabbit/dermal
Distillates (Petroleum), Hydrotreated Light	64742-47-8	>6.8 mg/L (Supplier Data)	>5 g/kg (Supplier Data)
d-Limonene	5989-27-5	Not established	4400 mg/kg (oral, rat) >5000 mg/kg (dermal, rabbit)
Carbon Dioxide	124-38-9	470000 ppm/rat/30min	Not Established

Target Organ Effects: This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects, mild, reversible kidney effects, blood abnormalities. Causes damage to the following organs in laboratory animals: kidneys, lungs, the nervous system, liver, upper respiratory tract, skin, eyes.

Reproductive Effects: This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Teratogenic Effects: Classified none for human.

Other Toxic Effects on Humans: Very hazardous in case of skin contact (permeator) and eye contact (irritant). Hazardous in case of skin contact (irritant), ingestion, and inhalation. Slightly hazardous in case of skin contact (sensitizer).



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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:	See below.

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

Ecotoxicity:

Effect on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	Distillates (Petroleum), Hydrotreated Light*	64742-47-8	96-hr LC ₅₀	Oncorhynchus mykiss	3200 µg/L
	d-Limonene	5989-27-5	4-day LC ₅₀	Oncorhynchus mykiss	35000 µg/L
			96hr EC ₅₀	Pimephales promelas	1490000 µg/L
Acute Toxicity on Daphnia	Acetone	67-64-1	48-hour EC ₅₀	Daphnia magna	12700 mg/L
Bacterial inhibition	No Data				
Growth inhibition of algae					
Bioaccumulation in fish					

*For the 64742-47-8 component, no toxicity has been observed in water due to extremely low water solubility. If material is spilled on soil, some potential toxic effects could occur before biodegradation could remove material.

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, the aerosol product carries waste code(s) D001 and D003 (U.S.).

Disposal: Waste must be disposed of in accordance with federal, state, provincial, 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. This information presented here only applies to the material as supplied. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.



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Section 14 • Transport Information

Aerosol

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 (aerosols only)

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA): Acetone 67-64-1 5000-lbs

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 (aerosols only), 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

State Regulations

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



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

New Jersey Right to Know: Acetone 67-64-1 • Distillates (petroleum), Hydrotreated light 64742-47-8 • d-Limonene 5989-27-5 • Carbon dioxide 124-38-9

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.

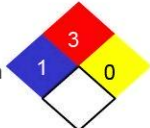
WHMIS Classification: Aerosol
Class A, Class B5, Class D2B



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#16420 Responsible Name: Clea Johnson Regulatory Affairs Coordinator	HMIS 1996		HMIS III		NFPA Flammability  Health 1 3 0 Reactivity
	Health:	1	Health:	[] 1	
	Flammability:	3	Flammability:	2	
	Reactivity:	0	Physical Hazard aerosol:	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