



MATERIAL SAFETY DATA SHEET

LPS® PreSolve

Revision Date: September 1, 2011

Supersedes: March 15, 2011

Section 1 • Product and Company Identification

Product Name: LPS® PreSolve

Part Number(s): 01420 (aerosol), 01422, 01428, 01405, 01455, C01420 (aerosol), C01422, C01428, C01405, C01455

Chemical Name: d-Limonene / Hydrocarbon Mixture

Product Use: A solvent degreasing agent designed for removing tar, adhesives, grease, oil and other residues from metal and other hard surfaces.

Manufacturer Information: LPS Laboratories, 4647 Hugh Howell Road, Tucker, GA, USA 30084
TEL: USA & Canada: 1 800 241-8334
Outside USA and Canada: +1 770 243-8800
FAX: USA & Canada: 1 800 543-1563
Outside USA and Canada: +1 770 243-8899

Emergency Telephone Number: Chemtrec: USA & Canada: 1 800 424-9300
Outside USA and Canada: +1 703 527-3887

Website: <http://www.lpslabs.com>

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:

Aerosol: DANGER: Flammable. Contents under pressure. Irritating to skin. May cause skin sensitization by skin contact.

Bulk: DANGER: Flammable. Harmful or fatal if swallowed. Irritating to skin. May cause skin sensitization by skin contact.

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.



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Potential Chronic Health Effects:

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

Mutagenic Effects: None

Teratogenic Effects: None

Target Organs: 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
Stoddard Solvent or Solvent Naphtha (Petroleum), Medium Aliphatic	8052-41-3 or 64742-88-7	50 - 70%
3-Methoxy-3-Methylbutan-1-ol	56539-66-3	10 - 20%
d-limonene	5989-27-5	5 - 10%
Diisopropylbenzene	25321-09-9	5 - 10%
Carbon Dioxide (aerosol only)	124-38-9	1 - 5%

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.



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Section 5 • Fire Fighting Measures

Products of Combustion:	Carbon monoxide and carbon dioxide.		
General Fire Hazards:	High heat will cause product to boil, evolving vapor that could cause explosive rupture of closed containers.		
Firefighting media:	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use CO2, 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.

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:	Contain and recover spilled material when possible.	
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 during cleanup.	

Section 7 • Handling and Storage

Handling:	DO NOT spray into or around ignition sources. DO NOT allow material to come in contact with eyes or skin. Wear appropriate protective equipment during handling. Keep container closed. Avoid breathing vapors or mists. Use only with adequate ventilation. Wash thoroughly after handling.
Storage:	Keep container in a cool, well-ventilated area. Avoid all sources of ignition (spark or flame). Store between 40°F and 120°F (4.4°C and 49°C).

Precautions to be taken in handling and storage:

Store aerosols as Level 3 Aerosol (NFPA 30B). Store all materials in a dry, well-ventilated area. Avoid breathing vapors.



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Section 8 • Exposure Controls / Personal Protection

Exposure Guidelines:

Component	CASRN	OSHA	ACGIH	NIOSH	Supplier
Stoddard Solvent or Solvent Naphtha (Petroleum), Medium Aliphatic	8052-41-3 or 64742-88-7	500 ppm PEL	100 ppm TLV	350 mg/m3 TWA	5 mg/m3 (oil mist) TWA
3-Methoxy-3-Methylbutan-1-ol	56539-66-3	Not established	Not established	Not established	None reported
d-limonene	5989-27-5	Not established	Not established	Not established	None reported
Diisopropylbenzene	25321-09-9	Not established	Not established	Not established	None reported
Carbon Dioxide (aerosol only)	124-38-9	5000 ppm PEL	5000 ppm TLV 30000 ppm STEL	5000 ppm TWA 30000 ppm STEL	None reported

Engineering Controls: Provide general and/or local exhaust ventilation to keep exposures below the exposure guidelines listed above.

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, wear chemical resistant gloves 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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Section 9 • Physical and Chemical Properties

Appearance:	Liquid	Color:	Clear, slightly off-white
Odor:	Naphtha / Orange	Evaporation Rate:	> 0.1 (BuAc = 1)
Solubility Description:	< 15% in water	Flash Point:	40°C (104°F) - dispensed liquid
Boiling Point:	> 150°C (302°F)	Flash Point Method:	Tag-Closed Cup
Specific Gravity (H₂O=1):	0.82 - 0.86 @ 20°C	Decomposition Temperature:	Not established
Vapor Density (air = 1):	> 1	Auto ignition temperature:	> 200°C (392°F)
Vapor Pressure:	< 5 mm Hg @ 20°C	Flammable limits (estimated):	LOWER: 0.7% UPPER: 6.0%
Rule 1171 PPc:	< 5 mm Hg @ 20°C	Partition Coefficient (octanol/water):	Not established
V.O.C. Content:	Aerosol: 97.2% per State & Federal Consumer Product Regulations; 816 g/L per SCAQMD Rule 102 Bulk: 100% per State & Federal Consumer Product Regulations; 839 g/L per SCAQMD Rule 102	Odor Threshold:	Not established
Melting Point:	Not established	Viscosity:	< 3 cSt @ 25°C
pH:	Not applicable	Volatiles:	100%
Heat of combustion:	Aerosol: > 30 kJ/g Bulk: > 30 kJ/g		

Section 10 • Stability and Reactivity

Chemical Stability:	Product is stable under recommended storage conditions.
Conditions to Avoid:	Keep away from ignition sources and extreme temperatures.
Incompatibility:	Reactive or incompatible with oxidizing agents. Avoid photoreactive agents and strong inorganic and organic acids.
Hazardous Decomposition:	These products are carbon oxides (CO, CO ₂) and hydrocarbons.
Hazardous Polymerization:	Will not occur.



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Section 11 • Toxicological Information

Acute and Chronic Toxicity

A: General Product Information

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
Stoddard Solvent or Solvent Naphtha (Petroleum), Medium Aliphatic	8052-41-3 or 64742-88-7	> 5500 mg/m3 / rat / 4 hr	> 5000 mg/kg / oral / rat* > 3000 mg/kg / dermal / rat*
3-Methoxy-3-Methylbutan-1-ol	56539-66-3	Not established	4.3 g/kg / oral / rat > 2000 mg/kg / dermal / rat
d-limonene	5989-27-5	Not established	4400 mg/kg / oral / rat > 5000 mg/kg / dermal / rabbit
Diisopropylbenzene	25321-09-9	> 2.1 mg/L / rat / 6 hr	3900 mg/kg / oral / rat > 3160 mg/kg / dermal / rabbit
Carbon Dioxide (aerosol only)	124-38-9	470000 ppm / rat / 30 minutes	Not appropriate

* Supplier Data

Section 12 • Ecological Information

Mobility: Semi-volatile. Readily absorbed into soil. **Persistence / Degradability:** Only 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

Effects on Organisms	Component	CASRN	Test	Species	Results
Acute Toxicity on Fishes	d-limonene	5989-27-5	4-day LC50	Oncorhynchus Mykiss	35,000 µg/L
			96-hr EC50	Pimephales Promelas	1,490,000 µg/L
	3-Methoxy-3-Methylbutan-1-ol	56539-66-3	48-hr EC50	Oryzias Latipes	7,400 ppm*
	Diisopropylbenzene	25321-09-9	Toxicity results are above the water solubility limit for this substance.		
Acute Toxicity on Daphnia	No data available				
Bacterial Inhibition					
Growth inhibition of algae					
Bioaccumulation in fish					

* Supplier Data



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Section 13 • Disposal Considerations

Waste Status: Aerosol cans, if depressurized and emptied to less than 1 inch (2.54 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 the waste codes D001 and D003 (U.S.). If disposed of in its received form, the bulk product carries the waste code D001 (U.S.).

Disposal: Waste must be disposed of in accordance with any and all applicable environmental control rules and/or 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.

Section 14 • Transport Information

Aerosol

D.O.T. Ground	Shipping Name:	Consumer Commodity	UN No.:	NA
	Hazard Class:	ORM-D	Technical Name:	NA
	Subclass:	NA	Hazard Label:	ORM-D Already on box
	Packing Group:	NA		
Road/Rail - ADR/RID	UN No.:	1950	ADR Class:	2
	Packing Group:	NA	Classification Code:	5F
	Name and description:	AEROSOLS, flammable	Hazard ID No.:	NA
	Labeling:	2.1	Technical Name:	NA
IMDG-IMO	UN No.:	1950	Class:	2
	Shipping Name:	Aerosols	Subsidiary Risk:	2.1
	Labeling:	NA	Packing Group:	NA
	Packing Instructions:	P003, LP02	EmS:	F-D, S-U
	Marine pollutant:	Yes	Technical Name:	NA
IATA - ICAO:	UN No.:	1950	Class:	2.1
	Shipping Name:	Aerosols, flammable	Subclass:	NA
	Packing Instructions:	203, Y203 (Ltd. Qty.)	Packing Group:	NA
	Labeling:	Flammable Gas	Technical Name:	NA

Bulk

D.O.T. Ground	Shipping Name:	Not regulated	UN No.:	NA
	Hazard Class:	NA	Technical Name:	NA
	Subclass:	NA	Hazard Label:	NA
	Packing Group:	NA		
Road/Rail - ADR/RID	UN No.:	1993	ADR Class:	3
	Packing Group:	III	Classification Code:	F1
	Name and description:	Flammable liquid, n.o.s.	Hazard ID No.:	33
	Labeling:	3	Technical Name:	Naphtha, d-limonene
IMDG-IMO	UN No.:	1993	Class:	3
	Shipping Name:	Flammable liquid, n.o.s.	Subsidiary Risk:	NA
	Labeling:	3	Packing Group:	III
	Packing Instructions:	P001, LP01	EmS:	F-E, <u>S-E</u>
	Marine pollutant:	Yes	Technical Name:	NA
IATA - ICAO:	UN No.:	1993	Class:	3
	Shipping Name:	Flammable liquid, n.o.s.	Subclass:	NA
	Packing Instructions:	Y344 (Ltd. Qty.), 355, 366 (CAO)	Packing Group:	III
	Labeling:	Flammable Liquid	Technical Name:	Naphtha, d-limonene

The preceding information is subject to change and must be verified prior to shipment. It is the responsibility of anyone offering hazardous materials for shipment to ensure compliance with all applicable regulations.



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Section 15 • Regulatory Information

U.S. Federal Regulations

RCRA Hazardous Waste No.: D001, D003 (aerosols only)

Comprehensive Environmental Response, Compensation 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 (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 other reproductive harm.

California and OTC States: This product is for manufacturing use only - not for retail sale.

New Jersey Right to Know:

Aerosol: Solvent Naphtha (Petroleum), Medium aliphatic 64742-88-7 or Stoddard Solvent 8052-41-3 • 3-Methoxy-3-Methylbutan-1-ol 56539-66-3 • d-Limonene 5989-27-5 • Diisopropylbenzene 25321-09-9 • Carbon Dioxide 124-38-9

Bulk: Solvent Naphtha (Petroleum), Medium aliphatic 64742-88-7 or Stoddard Solvent 8052-41-3 • 3-Methoxy-3-Methylbutan-1-ol 56539-66-3 • d-Limonene 5989-27-5 • Diisopropylbenzene 25321-09-9

International Regulations

Canadian Environmental Protection Act (CEPA):
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



WHMIS Classification:

Bulk: Class B3, Class D2B



Other Regulations:

Montreal Protocol listed ingredients:

None

Stockholm Convention listed ingredients:

None

Rotterdam Convention listed ingredients:

None

RoHS Compliant:

Yes



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Section 16 • Other Information

MSDS#: 11420 MSDS Preparation Responsible Name: Elena Badiuzzi Compliance Manager Telephone: +1 770 243-8800	HMIS 1996	HMIS III	NFPA Flammability Health Reactivity Special
	Health: 2	Health: [] 2	
	Flammability: 2	Flammability Aerosol: 4 Flammability Bulk: 2	
	Reactivity: 0	Physical Hazard Aerosol: 2 Physical Hazard Bulk: 0	

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.

Elena Badiuzzi, Compliance Manager
LPS Laboratories, a division of Illinois Tool Works