MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier **LPS® PreSolve (Aerosol)**

Version # 01

Issue date 06-09-2015

CAS # Mixture

Part Number 01420, C01420

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

Manufacturer information

ITW Pro Brands
4647 Hugh Howell Rd
Tucker, GA 30084
United States
lpssds@itwprobrands.com
www.lpslabs.com

1-800-241-8334 /	770-243-8800
Chemtrec	1-800-424-9300

Supplier Not available.

2. Hazards Identification

Emergency overview DANGER

Flammable aerosol. Contents under pressure. Will be easily ignited by heat, spark or flames.

Causes skin and eye irritation. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Avoid contact with eyes. Causes eye irritation.

Skin Avoid contact with the skin. Causes skin irritation. May cause sensitization by skin contact.

Inhalation Avoid breathing dust/fume/gas/mist/vapors/spray. Prolonged inhalation may be harmful.

Ingestion Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Do not ingest.

Target organs Eyes. Skin.

Potential environmental effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
D-LIMONENE	5989-27-5	10 - 20
CARBON DIOXIDE	124-38-9	1 - 3

Non-hazardous components	CAS #	Percent
Distillates Petroleum Hydrotreated Light	64742-47-8	60 - 70
3-Methoxy-3-methyl-1-butanol (MMB)	56539-66-3	10 - 20

4. First Aid Measures

First aid procedures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists.
Eye contact	Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.
Ingestion	Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Notes to physician	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim under observation. Symptoms may be delayed.
General advice	In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS criteria. Pressurized container may explode when exposed to heat or flame.
Extinguishing media	
Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Specific hazards arising from the chemical	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.
Explosion data	
Sensitivity to static discharge	Yes
Sensitivity to mechanical impact	None known.
Hazardous combustion products	May include oxides of carbon.
General fire hazards	Flammable aerosol.

6. Accidental Release Measures

Personal precautions	Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
Environmental precautions	Prevent further leakage or spillage if safe to do so.
Methods for containment	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Extinguish all flames in the vicinity. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. All equipment used when handling the product must be grounded. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Do not get this material on clothing. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling.

Storage

Contents under pressure. Do not handle or store near an open flame, heat or other sources of ignition. Keep at temperature not exceeding 49 °C. Store in a closed container away from incompatible materials. Store in a well-ventilated place. Keep container dry. Keep in an area equipped with sprinklers.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	15000 ppm
	TWA	5000 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	30000 ppm
	TWA	5000 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	STEL	54000 mg/m3
		30000 ppm
	TWA	9000 mg/m3
		5000 ppm

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
CARBON DIOXIDE (CAS 124-38-9)	PEL	9000 mg/m3
		5000 ppm

Biological limit values

No biological exposure limits noted for the ingredient(s).

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.
Skin protection	Avoid contact with clothing. Wear suitable protective clothing. Chemical resistant gloves.
Respiratory protection	No personal respiratory protective equipment normally required. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Hand protection	Chemical resistant gloves are recommended.

9. Physical & Chemical Properties

Appearance

Physical state	Gas.
Form	Aerosol.
Color	Clear, Off-white.
Odor	Orange
Odor threshold	Not established
pH	Not applicable
Vapor pressure	< 5 mm Hg @ 20°C
Vapor density	> 1 (air = 1)
Boiling point	> 302 °F (> 150 °C)
Melting point/Freezing point	Not established
Solubility (water)	< 15 %
Specific gravity	0.82 - 0.86 @ 20°C
Relative density	Not available.
Flash point	104.0 °F (40.0 °C) Tag Closed Cup
Flammability limits in air, upper, % by volume	6 %
Flammability limits in air, lower, % by volume	0.7 %
Auto-ignition temperature	> 392 °F (> 200 °C)
VOC	97.2 % per U.S. State and Federal Consumer Product Regulations
Evaporation rate	> 0.1 BuAc
Viscosity	< 3 cSt @ 25°C
Percent volatile	100 %
Partition coefficient (n-octanol/water)	Not established

Other data

Decomposition temperature	Not established
Heat of combustion	> 30 kJ/g

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
D-LIMONENE (CAS 5989-27-5)		
Acute		
Oral		
LD50	Mouse	5600 - 6600 mg/kg
	Rat	> 2000 mg/kg

Acute effects Based on available data, the classification criteria are not met.

Sensitization May cause sensitization by skin contact.

Local effects Irritating to eyes and skin. May cause sensitization by skin contact. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic effects Prolonged exposure may cause chronic effects.

Carcinogenicity Based on available data, the classification criteria are not met.

IARC Monographs. Overall Evaluation of Carcinogenicity

D-LIMONENE (CAS 5989-27-5) 3 Not classifiable as to carcinogenicity to humans.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation Causes serious eye irritation.

Mutagenicity Not available.

Reproductive effects Based on available data, the classification criteria are not met.

Teratogenicity Not available.

Symptoms and target organs Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Synergistic materials Not available.

12. Ecological Information

Ecotoxicological data

Components		Species	Test Results
D-LIMONENE (CAS 5989-27-5)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia pulex)	69.6 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	0.619 - 0.796 mg/l, 96 hours

Ecotoxicity Toxic to aquatic life with long lasting effects.

Environmental effects Toxic to aquatic organisms.

Aquatic toxicity Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Persistence and degradability Not inherently biodegradable.

Partition coefficient

D-LIMONENE 4.232

Mobility in environmental media Readily absorbed into soil. The product is immiscible with water and will spread on the water surface.

Other adverse effects None known.

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport Information

TDG

UN number UN1950

UN proper shipping name Aerosols, flammable

Transport hazard class(es)

Class	2.1
Subsidiary risk	-

Packing group Not applicable.
Environmental hazards No
Special precautions for user Not available.

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.
Environmental hazards No.
Special precautions for user Not available.
Other information

Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)

Class	2.1
Subsidiary risk	-
Label(s)	2.1

Packing group Not applicable.
Environmental hazards

Marine pollutant	Yes

EmS F-D, S-U
Special precautions for user Not available.

IATA; IMDG; TDG

Marine pollutant

15. Regulatory Information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status Controlled

WHMIS classification

A - Compressed Gas
B5 - Flammable Aerosols
D2B - Other Toxic Effects-TOXIC

WHMIS labeling

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Prepared by

Not available.

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Product and Company Identification
Composition / Information on Ingredients: Disclosure Overrides
Fire Fighting Measures: Hazardous combustion products
Ecological Information: Other adverse effects
Regulatory Information: Other
GHS: Classification