



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product identifier** LPS® PF® Solvent  
**Version #** 01  
**Issue date** 01-06-2014  
**CAS #** Mixture  
**Part Number** C61432, C61401, C61405, C61456  
**Product use** A solvent agent designed for removing grease, oil and other residues from metal, power cable and fiber optic cable surfaces.  
**Manufacturer information** LPS Laboratories, a division of Illinois Tool Works  
4647 Hugh Howell Rd  
Tucker, Georgia 30084 United States  
www.lpslabs.com  
1-800-241-8334/ 770-243-8800  
Chemtrec 1-800-424-9300

## 2. Hazards Identification

**Emergency overview** DANGER  
  
Combustible liquid. May be ignited by heat, sparks or flames.  
  
HARMFUL OR FATAL IF SWALLOWED.  
May cause an allergic skin reaction. May be irritating to eyes.  
  
**Potential health effects**  
**Routes of exposure** Eye contact. Skin contact. Inhalation. Ingestion.  
**Eyes** Avoid contact with eyes. May cause eye irritation.  
**Skin** Avoid contact with the skin. May cause sensitization by skin contact.  
**Inhalation** Do not breathe fumes. Prolonged inhalation may be harmful.  
**Ingestion** Do not ingest. Harmful: may cause lung damage if swallowed.  
**Signs and symptoms** Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Symptoms may include redness, edema, drying, defatting and cracking of the skin.  
**Potential environmental effects** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. Composition / Information on Ingredients

| Components                            | CAS #      | Percent  |
|---------------------------------------|------------|----------|
| Naphtha Petroleum, Hydrotreated Heavy | 64742-48-9 | 60 - 100 |
| D-LIMONENE                            | 5989-27-5  | 7 - 13   |

## 4. First Aid Measures

**First aid procedures**  
**Eye contact** Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Continue rinsing. Get medical attention if irritation develops and persists.  
**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.  
**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.  
**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.  
**General advice** Call a POISON CENTER or doctor/physician if you feel unwell.

## 5. Fire Fighting Measures

|   |  |
|---|--|
| <b>Flammable properties</b>                       | Combustible by WHMIS criteria.   |
| <b>Extinguishing media</b>                        |  |
| <b>Suitable extinguishing media</b>               | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).  |
| <b>Unsuitable extinguishing media</b>             | Do not use water jet as an extinguisher, as this will spread the fire.   |
| <b>Protection of firefighters</b>                 |  |
| <b>Specific hazards arising from the chemical</b> | Combustible.   |
| <b>Protective equipment for firefighters</b>      | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| <b>Fire fighting equipment/instructions</b>       | In case of fire and/or explosion do not breathe fumes. Cool containers exposed to heat with water spray and remove container, if no risk is involved.            |
| <b>Explosion data</b>                             |  |
| <b>Sensitivity to static discharge</b>            | None known.  |
| <b>Sensitivity to mechanical impact</b>           | None known.  |
| <b>Hazardous combustion products</b>              | May include oxides of carbon.  |
| <b>General fire hazards</b>                       | Combustible liquid.  |

## 6. Accidental Release Measures

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Keep unnecessary personnel away. For personal protection, see section 8 of the MSDS.         |
| <b>Environmental precautions</b> | Do not contaminate water.  |
| <b>Methods for cleaning up</b>   | Should not be released into the environment. For waste disposal, see section 13 of the MSDS. |

## 7. Handling and Storage

|                 |   |
|-----------------|---|
| <b>Handling</b> | Avoid contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Avoid release to the environment. |
| <b>Storage</b>  | Store in original tightly closed container. Store locked up. Store away from incompatible materials (see Section 10 of the MSDS).   |

## 8. Exposure Controls / Personal Protection

|                                      |   |
|--------------------------------------|---|
| <b>Biological limit values</b>       | No biological exposure limits noted for the ingredient(s).  |
| <b>Engineering controls</b>          | Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. |
| <b>Personal protective equipment</b> |   |
| <b>Eye / face protection</b>         | Avoid contact with eyes. Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.  |
| <b>Skin protection</b>               | Avoid contact with the skin. Wear suitable protective clothing and gloves. Chemical resistant gloves.   |
| <b>Respiratory protection</b>        | No personal respiratory protective equipment normally required. Do not breathe dust/fume/gas/mist/vapors/spray.   |

## 9. Physical & Chemical Properties

|                       |                   |
|-----------------------|-------------------|
| <b>Appearance</b>     |                   |
| <b>Physical state</b> | Liquid.           |
| <b>Form</b>           | Liquid.           |
| <b>Color</b>          | Clear water-white |
| <b>Odor</b>           | Orange            |
| <b>Odor threshold</b> | Not available.    |
| <b>pH</b>             | Not applicable    |
| <b>Vapor pressure</b> | 0.48 mm Hg @ 20°C |

|  |   |
|--|---|
| Vapor density                                  | > 1 (air = 1)   |
| Boiling point                                  | 365 °F (185 °C) @760 mm Hg                                  |
| Melting point/Freezing point                   | Not available.  |
| Solubility (water)                             | Negligible  |
| Specific gravity                               | 0.74 - 0.78 @20°C   |
| Relative density                               | Not available.  |
| Flash point                                    | > 141.8 °F (> 61.0 °C) Tag Closed Cup                       |
| Flammability limits in air, upper, % by volume | 5.3 %   |
| Flammability limits in air, lower, % by volume | 0.7 %   |
| Auto-ignition temperature                      | 635 °F (335 °C)   |
| VOC  | 100 % per US State and Federal Consumer Product Regulations |
| Evaporation rate                               | < 0.1 BuAc = 1  |
| Viscosity                                      | 1.5 cSt @ 25°C  |
| Percent volatile                               | 100 %   |
| Partition coefficient (n-octanol/water)        | Not Determined  |

## 10. Chemical Stability & Reactivity Information

|                                    |   |
|------------------------------------|---|
| Chemical stability                 | Material is stable under normal conditions.                   |
| Conditions to avoid                | Heat, flames and sparks. Contact with incompatible materials. |
| 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) |         |                   |
| <b>Acute</b>               |         |                   |
| <i>Dermal</i>              |         |                   |
| LD50                       | Rabbit  | > 5000 mg/kg      |
| <i>Oral</i>                |         |                   |
| LD50                       | Mouse   | 5600 - 6600 mg/kg |
|                            | Rat     | > 2000 mg/kg      |
| <i>Other</i>               |         |                   |
| LD50                       | Mouse   | 1.3 g/kg          |
|                            | Rat     | 0.11 g/kg         |

|   |  |
|---|--|
| <b>Acute effects</b>  | May cause an allergic skin reaction. Harmful if swallowed. May be fatal if swallowed and enters airways.         |
| <b>Local effects</b>  | May cause sensitization by skin contact.   |
| <b>Chronic effects</b>  | Prolonged or repeated contact may cause drying, cracking, or irritation. Prolonged inhalation may be harmful.    |
| <b>Carcinogenicity</b>  | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.                                  |
| <b>IARC Monographs. Overall Evaluation of Carcinogenicity</b> |  |
| D-LIMONENE (CAS 5989-27-5)                                    | 3 Not classifiable as to carcinogenicity to humans.  |
| <b>Mutagenicity</b>   | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| <b>Reproductive effects</b>                                   | This product is not expected to cause reproductive or developmental effects.                                     |

**Symptoms and target organs** Direct contact with eyes may cause temporary irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction.

## 12. Ecological Information

### Ecotoxicological data

| Components                             | Species   | Test Results   |
|--|---|--|
| D-LIMONENE (CAS 5989-27-5)             |   |  |
| <b>Aquatic</b>                         |   |  |
| Crustacea                              | EC50  | Water flea ( <i>Daphnia pulex</i> ) 69.6 mg/l, 48 hours                    |
| Fish                                   | LC50  | Fathead minnow ( <i>Pimephales promelas</i> ) 0.619 - 0.796 mg/l, 96 hours |
| <b>Ecotoxicity</b>                     | Toxic to aquatic life with long lasting effects.  |  |
| <b>Environmental effects</b>           | Toxic to aquatic organisms.   |  |
| <b>Aquatic toxicity</b>                | Toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. |  |
| <b>Persistence and degradability</b>   | Expected to biodegrade.   |  |
| <b>Partition coefficient</b>           |   |  |
| D-LIMONENE                             | 4.232   |  |
| <b>Mobility in environmental media</b> | The product is immiscible with water and will spread on the water surface.                  |  |

## 13. Disposal Considerations

|  |   |
|--|---|
| <b>Disposal instructions</b>                 | Dispose of contents/container in accordance with local/regional/national/international regulations.         |
| <b>Waste from residues / unused products</b> | Dispose of in accordance with local regulations.  |
| <b>Contaminated packaging</b>                | Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

## 14. Transport Information

### TDG

|                                     |  |
|-------------------------------------|--|
| <b>UN number</b>                    | UN3082   |
| <b>UN proper shipping name</b>      | Environmentally hazardous substance, liquid, n.o.s. (D-LIMONENE)         |
| <b>Transport hazard class(es)</b>   |  |
| <b>Class</b>                        | 9  |
| <b>Subsidiary risk</b>              | -  |
| <b>Packing group</b>                | III  |
| <b>Environmental hazards</b>        | Not available.   |
| <b>Special precautions for user</b> | Read safety instructions, MSDS and emergency procedures before handling. |

### IATA

Not regulated as dangerous goods.

### IMDG

|                                     |  |
|-------------------------------------|--|
| <b>UN number</b>                    | UN3082   |
| <b>UN proper shipping name</b>      | Environmentally hazardous substance, liquid, n.o.s. (D-LIMONENE)         |
| <b>Transport hazard class(es)</b>   |  |
| <b>Class</b>                        | 9  |
| <b>Subsidiary risk</b>              | -  |
| <b>Label(s)</b>                     | 9  |
| <b>Packing group</b>                | III  |
| <b>Environmental hazards</b>        |  |
| <b>Marine pollutant</b>             | No.  |
| <b>EmS</b>                          | F-A, S-F   |
| <b>Special precautions for user</b> | Read safety instructions, MSDS and emergency procedures before handling. |

IMDG; TDG



## 15. Regulatory Information

**WHMIS status** Controlled  
**WHMIS classification** B3 - Combustible Liquids  
D2B - Other Toxic Effects-TOXIC

### WHMIS labeling



### Inventory status

| 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)               | Yes                    |
| 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