



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** LPS® LST

**Other means of identification**

**Part Number** 01928, 01905, 01955

**Recommended use** An industrial penetrant designed to penetrate rust and loosen seized bolts and other equipment damaged by corrosion.

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Manufacturer**

**Company name** LPS Laboratories, a division of Illinois Tool Works, Inc.

**Address** 4647 Hugh Howell Rd.  
Tucker, GA 30084  
(U.S.A.)

**Country** (U.S.A.)

**In Case of Emergency** Tel: +1 770-243-8800  
1-800-424-9300 (inside U.S.)  
+001 703-527-3887 (outside U.S.)

**Website** www.lpslabs.com

**E-mail** sds@lpslabs.com

## 2. Hazard(s) identification

**Physical hazards** Flammable liquids Category 4

**Health hazards** Aspiration hazard Category 1

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

**Hazard statement** Combustible liquid. May be fatal if swallowed and enters airways.

**Precautionary statement**

**Prevention** Not available.

**Response** If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting.

**Storage** Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name                             | Common name and synonyms | CAS number | %        |
|-------------------------------------------|--------------------------|------------|----------|
| Distillates Petroleum, Hydrotreated Light |                          | 64742-47-8 | 90 - 100 |

## 4. First-aid measures

|                                                                               |                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                                                             | Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.                                                                        |
| <b>Skin contact</b>                                                           | Wash off with soap and water. Get medical attention if irritation develops and persists.                                                                                                                                                                          |
| <b>Eye contact</b>                                                            | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.                                                               |
| <b>Ingestion</b>                                                              | 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. |
| <b>Most important symptoms/effects, acute and delayed</b>                     | Dermatitis. Rash. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Skin irritation. May cause redness and pain.                                                                                                               |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically.                                                                                                                                                                                                    |
| <b>General information</b>                                                    | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Call a POISON CENTER or doctor/physician if you feel unwell.                                                                                     |

## 5. Fire-fighting measures

|                                                                      |                                                                                                                                                                                                                     |
|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable extinguishing media</b>                                  | Alcohol resistant foam. Water spray. Water fog. Dry chemical powder. Dry chemicals. Carbon dioxide (CO <sub>2</sub> ).                                                                                              |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.                                                                                                                                              |
| <b>Specific hazards arising from the chemical</b>                    | The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.                                                      |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.                                                                                                                       |
| <b>Fire-fighting equipment/instructions</b>                          | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved. |
| <b>Specific methods</b>                                              | Use standard firefighting procedures and consider the hazards of other involved materials.                                                                                                                          |
| <b>General fire hazards</b>                                          | Combustible liquid.                                                                                                                                                                                                 |

## 6. Accidental release measures

|                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS.                                                                                                                                                                                                                                                                                                                            |
| <b>Methods and materials for containment and cleaning up</b>               | <p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.</p> <p>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Following product recovery, flush area with water.</p> <p>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.</p> |
| <b>Environmental precautions</b>                                           | Avoid discharge into drains, water courses or onto the ground.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## 7. Handling and storage

|                                      |                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b> | Keep away from open flames, hot surfaces and sources of ignition. When using do not smoke. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices. |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Conditions for safe storage, including any incompatibilities**

Store locked up. Keep away from heat and sources of ignition. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

**8. Exposure controls/personal protection****Occupational exposure limits****U.S. - OSHA  
Components**

| Type                                                       | Value   | Form     |
|------------------------------------------------------------|---------|----------|
| Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) | 5 mg/m3 | Oil mist |

**ACGIH  
Components**

| Type                                                       | Value   | Form     |
|------------------------------------------------------------|---------|----------|
| Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) | 5 mg/m3 | Oil mist |

**Biological limit values**

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

**Appropriate engineering controls**

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. Eye wash facilities and emergency shower must be available when handling this product.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Skin protection****Hand protection**

Chemical resistant gloves are recommended.

**Other**

Wear suitable protective clothing.

**Respiratory protection**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Thermal hazards**

Not applicable.

**General hygiene considerations**

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

Liquid.

**Physical state**

Liquid.

**Form**

Liquid.

**Color**

Clear

**Odor**

Vanilla

**Odor threshold**

Not available.

**pH**

Not applicable

**Melting point/freezing point**

Not established

**Initial boiling point and boiling range**

383 °F (195 °C)

**Flash point**

174.2 °F (79.0 °C) Tag Closed Cup

**Evaporation rate**

< 0.7 BuAc

**Flammability (solid, gas)**

Not available.

**Upper/lower flammability or explosive limits****Flammability limit - lower (%)**

Not available.

**Flammability limit - upper (%)**

Not available.

**Explosive limit - lower (%)**

Not available.

**Explosive limit - upper (%)**

Not available.

|                                                    |                                                           |
|----------------------------------------------------|-----------------------------------------------------------|
| <b>Vapor pressure</b>                              | < 0.1 mm Hg @ 20°C                                        |
| <b>Vapor density</b>                               | 4.7                                                       |
| <b>Relative density</b>                            | Not available.                                            |
| <b>Solubility(ies)</b>                             |                                                           |
| <b>Solubility (water)</b>                          | < 0.1 %                                                   |
| <b>Partition coefficient<br/>(n-octanol/water)</b> | > 1                                                       |
| <b>Auto-ignition temperature</b>                   | Not established                                           |
| <b>Decomposition temperature</b>                   | Not established                                           |
| <b>Viscosity</b>                                   | Not established                                           |
| <b>Other information</b>                           |                                                           |
| <b>Heat of combustion</b>                          | > 30 kJ/g                                                 |
| <b>Percent volatile</b>                            | 96 - 99 %                                                 |
| <b>Specific gravity</b>                            | 0.79 - 0.81 @ 20°C                                        |
| <b>VOC (Weight %)</b>                              | 0 % per US State and Federal Consumer Product Regulations |

## 10. Stability and reactivity

|                                           |                                                                                                                                                |
|-------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport.                                                  |
| <b>Chemical stability</b>                 | Material is stable under normal conditions.                                                                                                    |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerization does not occur.                                                                                                       |
| <b>Conditions to avoid</b>                | Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| <b>Incompatible materials</b>             | Strong oxidizing agents.                                                                                                                       |
| <b>Hazardous decomposition products</b>   | No hazardous decomposition products are known.                                                                                                 |

## 11. Toxicological information

### Information on likely routes of exposure

|                     |                                                                                                 |
|---------------------|-------------------------------------------------------------------------------------------------|
| <b>Ingestion</b>    | Harmful if swallowed. May be fatal if swallowed and enters airways.                             |
| <b>Inhalation</b>   | Prolonged inhalation may be harmful.                                                            |
| <b>Skin contact</b> | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. |
| <b>Eye contact</b>  | Direct contact with eyes may cause temporary irritation.                                        |

**Symptoms related to the physical, chemical and toxicological characteristics** Irritating to eyes, respiratory system and skin. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Exposure may cause temporary irritation, redness, or discomfort.

### Information on toxicological effects

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

| <b>Components</b>                                          | <b>Species</b>                                           | <b>Test Results</b> |
|------------------------------------------------------------|----------------------------------------------------------|---------------------|
| Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) |                                                          |                     |
| <b>Acute</b>                                               |                                                          |                     |
| <i>Dermal</i>                                              |                                                          |                     |
| LD50                                                       | Rabbit                                                   | > 2000 mg/kg        |
| <i>Inhalation</i>                                          |                                                          |                     |
| LC50                                                       | Cat                                                      | > 6.4 mg/l          |
|                                                            | Rat                                                      | > 0.1 mg/l          |
| <i>Oral</i>                                                |                                                          |                     |
| LD50                                                       | Rat                                                      | > 5000 mg/kg        |
| <b>Skin corrosion/irritation</b>                           | Prolonged skin contact may cause temporary irritation.   |                     |
| <b>Serious eye damage/eye irritation</b>                   | Direct contact with eyes may cause temporary irritation. |                     |

## Respiratory or skin sensitization

**Respiratory sensitization** Not a respiratory sensitizer.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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

**Specific target organ toxicity - single exposure** Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure** Based on available data, the classification criteria are not met.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** Prolonged inhalation may be harmful.

## 12. Ecological information

**Ecotoxicity** Ecological injuries are not known or expected under normal use.

| Components                                                |      | Species                                                | Test Results       |
|-----------------------------------------------------------|------|--------------------------------------------------------|--------------------|
| Distillates Petroleum, Hydroteated Light (CAS 64742-47-8) |      |                                                        |                    |
| Aquatic                                                   |      |                                                        |                    |
| Fish                                                      | LC50 | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss) | 2.9 mg/l, 96 hours |

**Persistence and degradability** Not inherently biodegradable.

**Bioaccumulative potential** Not available.

### Partition coefficient n-octanol / water (log Kow)

LPS® LST > 1

**Mobility in soil** Readily absorbed into soil.

**Other adverse effects** None known.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

Not regulated as dangerous goods.

### IATA

Not regulated as dangerous goods.

### IMDG

Not regulated as dangerous goods.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - Yes  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**  
Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**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)             | No                     |
| Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS) | No                     |
| Europe               | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                | Inventory of Existing and New Chemical Substances (ENCS)               | No                     |
| Korea                | Existing Chemicals List (ECL)                                          | No                     |
| New Zealand          | New Zealand Inventory                                                  | No                     |

| Country(s) or region        | Inventory name                                                    | On inventory (yes/no)* |
|-----------------------------|-------------------------------------------------------------------|------------------------|
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No                     |
| 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, including date of preparation or last revision

**Issue date** 07-02-2014

**Version #** 01

**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.