1. Identification

Product identifier: LPS® LST (Aerosol)

Other means of identification:
- Part Number: 01916, C01916

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:
- Company name: ITW Pro Brands
- Address: 4647 Hugh Howell Rd.
  Tucker, GA 30084
- Country: (U.S.A.)
- Tel: +1 770-243-8800

In Case of Emergency:
- 1-800-424-9300
- 1-703-527-3887

Website: www.lpslabs.com

E-mail: lpssds@itwprobrands.com

Supplier:
- ITW Permatex Canada
  1-35 Brownridge Road
  Halton Hills, ON, L7G 0C6
  Canada
  1-800-241-8334

2. Hazard(s) identification

Physical hazards: Flammable aerosols
- Category 1

Gases under pressure
- Compressed gas

Health hazards:
- Aspiration hazard
- Category 1

Environmental hazards: Not classified.

Label elements:

Signal word: Danger

Hazard statement: Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways.

Precautionary statement:

Prevention:
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
- No smoking.
- Do not spray on an open flame or other ignition source.
- Do not pierce or burn, even after use.

Response:
- IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting.

Storage:
- Store locked up. Protect from sunlight.
- Store in a well-ventilated place.
- Do not expose to temperatures exceeding 50°C/122°F.

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

Other hazards: Combustible.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures:
<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates Petroleum Hydrotreated Light</td>
<td>64742-47-8</td>
<td>80 - 90</td>
<td></td>
</tr>
<tr>
<td>Distillates Petroleum Hydrotreated Med</td>
<td>64742-46-7</td>
<td>1 - 10</td>
<td></td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>1 - 5</td>
<td></td>
</tr>
<tr>
<td>Benzenesulfonic acid, mono-C16-24-alkyl derivatives, Calcium salts</td>
<td>-</td>
<td>0.1 - 1</td>
<td></td>
</tr>
</tbody>
</table>

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
No adverse effects due to skin contact are expected.

**Eye contact**
No specific first aid measures noted.

**Ingestion**
Not likely, due to the form of the product.

**Most important symptoms/effects, acute and delayed**
Aspiration may cause pulmonary edema and pneumonitis.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Alcohol resistant foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

**Fire fighting equipment/instructions**
In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. 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. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not breathe fumes.

**General fire hazards**
Extremely flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame.

### 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Use water spray to reduce vapors or divert vapor cloud drift. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. For waste disposal, see section 13 of the SDS.

**Environmental precautions**
Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

Precautions for safe handling
Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. 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. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Stored containers should be periodically checked for general condition and leakage. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

<table>
<thead>
<tr>
<th>ACGIH Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Oil mist</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>30000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5000 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>54000 mg/m³</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>30000 ppm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9000 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5000 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>15000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5000 ppm</td>
</tr>
<tr>
<td>Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)</td>
<td>TWA</td>
<td>200 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Non-aerosol.</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>30000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5000 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>30000 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>5000 ppm</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON DIOXIDE (CAS 124-38-9)</td>
<td>STEL</td>
<td>54000 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30000 ppm</td>
</tr>
</tbody>
</table>
9. Physical and chemical properties

Appearance

- **Physical state**: Gas.
- **Form**: Aerosol.
- **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)**

- Flammable gas.

**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.

**Vapor pressure**

- < 0.1 mm Hg @ 20°C

**Vapor density**

- 4.7

**Relative density**

- Not available.

**Solubility(ies)**

- **Solubility (water)**: < 0.1 %

**Partition coefficient**

- (n-octanol/water): > 1
Auto-ignition temperature Not established
Decomposition temperature Not established
Viscosity Not established

Other information
Explosive properties Not explosive.
Heat of combustion > 30 kJ/g
Oxidizing properties Not oxidizing.
Percent volatile 96 - 99 %
Specific gravity 0.79 - 0.81 @ 20°C
VOC 0 % per US State and Federal Consumer Product Regulations

10. Stability and reactivity
Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions Hazardous polymerization does not occur.
Conditions to avoid Heat. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials Strong oxidizing agents.
Hazardous decomposition products Carbon oxides.

11. Toxicological information
Information on likely routes of exposure
Inhalation Prolonged inhalation may be harmful.
Skin contact No adverse effects due to skin contact are expected.
Eye contact Direct contact with eyes may cause temporary irritation.
Ingestion Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics
Aspiration may cause pulmonary edema and pneumonitis.

Information on toxicological effects
Acute toxicity May be fatal if swallowed and enters airways.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor</td>
<td>Rat</td>
<td>&gt; 4.5 mg/l, 4 Hours</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distillates Petroleum Hydrotreated Med (CAS 64742-46-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg, 24 Hours</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Prolonged skin contact may cause temporary irritation.</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Direct contact with eyes may cause temporary irritation.</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Not a respiratory sensitizer.</td>
<td></td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>This product is not expected to cause skin sensitization.</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.</td>
<td></td>
</tr>
</tbody>
</table>
Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
May be fatal if swallowed and enters airways.

Chronic effects
Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)</td>
<td>Aquatic</td>
<td>Rainbow trout, donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)
LPS® LST (Aerosol) > 1

Mobility in soil
No data available.

Other adverse effects
None known.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. 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
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

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 available.

Environmental hazards
No

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number
UN1950

UN proper shipping name
Aerosols, flammable

Transport hazard class(es)
Class 2.1

Subsidiary risk

Packing group
Not available.

Environmental hazards
No

ERG Code
10L

Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.
Other information
Passenger and cargo aircraft
Allowed with restrictions.
Cargo aircraft only
Allowed with restrictions.

IMDG
UN number UN1950
UN proper shipping name AEROSOLS
Transport hazard class(es)
Class 2
Subsidiary risk Not available.
Packing group No
Environmental hazards Not available.
Marine pollutant No
EmS F-D, S-U
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
IATA; IMDG; TDG

General information
Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. Before transporting product containers: Ensure that containers are firmly secured. Ensure cylinder valve is closed and not leaking. Ensure valve outlet cap nut or plug (where provided) is correctly fitted. Ensure valve protection device (where provided) is correctly fitted. Ensure adequate ventilation. Ensure compliance with applicable regulations.

15. Regulatory information
Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act
Not regulated.

Export Control List (CEPA 1999, Schedule 3)
Not listed.

Greenhouse Gases
CARBON DIOXIDE (CAS 124-38-9)
Precursor Control Regulations
Not regulated.

International regulations Additional information is given in the Safety Data Sheet.

Stockholm Convention
Not applicable.

Rotterdam Convention
Not applicable.

Kyoto protocol
CARBON DIOXIDE (CAS 124-38-9) Listed.

Montreal Protocol
Not applicable.

Basel Convention
Not applicable.
### International Inventories

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

*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

**Issue date** 08-03-2016

**Revision date** 09-22-2017

**Version #** 02

**Disclaimer**

ITW Pro Brands cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. 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.

**Revision information**

This document has undergone significant changes and should be reviewed in its entirety.