

1. Identification

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| Product identifier | LPS® KB88 (Aerosol) |
| Other means of identification | |
| Part Number | 02316 |
| Recommended use | A high performance penetrant designed to loosen metal parts. |
| Recommended restrictions | None known. |
| Manufacturer/Importer/Supplier/Distributor information | |
| Manufacturer | |
| 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 (inside U.S.) +001 703-527-3887 (outside U.S.) |
| Website | www.lpslabs.com |
| E-mail | lpssds@itwprobrands.com |

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. | |
| OSHA defined 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/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: 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. |
| Hazard(s) not otherwise classified (HNOC) | Combustible. |
| Supplemental information | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|---------|
| Distillates Petroleum Hydrotreated Light | | 64742-47-8 | 20 - 30 |
| Solvent Naphtha (petroleum), Heavy Arom. | | 64742-94-5 | 20 - 30 |
| Distillates Petroleum Hydrotreated Med | | 64742-46-7 | 1 - 10 |
| Carbon Dioxide | | 124-38-9 | 1 - 5 |

4. First-aid measures

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| 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

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| 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

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| 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. 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. 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. This product is miscible in water. 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

Level 3 Aerosol.

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

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

U.S. - OSHA

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

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 |

ACGIH

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

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-------------------------------|------|-----------|
| Carbon Dioxide (CAS 124-38-9) | STEL | 30000 ppm |
| | TWA | 5000 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

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

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.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear suitable protective clothing.

| | |
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| Respiratory protection | If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. |
| Thermal hazards | Wear appropriate thermal protective clothing, when necessary. |
| General hygiene considerations | When using do not 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

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|---|--|
| Physical state | Gas. |
| Form | Aerosol. |
| Color | Red. |
| Odor | Hydrocarbon-like. |
| Odor threshold | Not available. |
| pH | Not applicable |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | Not available. |
| Flash point | 159.8 °F (71.0 °C) Tag Closed Cup |
| Evaporation rate | < 0.1 BuAc |
| Flammability (solid, gas) | Flammable gas. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | 0.6 % |
| Flammability limit - upper (%) | 11.7 % |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | < 1 mm Hg @ 20°C (est.) |
| Vapor density | > 1 |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | Not soluble |
| Partition coefficient (n-octanol/water) | Not available |
| Auto-ignition temperature | > 420 °F (> 215.56 °C) |
| Decomposition temperature | Not available. |
| Viscosity | Low viscosity comparable to water (water = 1cST @ 20°C) |
| Other information | |
| Density | 7.30 lb/gal |
| Explosive properties | Not explosive. |
| Heat of combustion | > 30 kJ/g |
| Oxidizing properties | Not oxidizing. |
| Percent volatile | 92 % |
| Specific gravity | 0.88 @23°C |
| VOC | 24 % per U.S. State and Federal Consumer Product Regulations |

10. Stability and reactivity

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|---|---|
| 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.

| Components | Species | Test Results |
|------------|---------|--------------|
|------------|---------|--------------|

Distillates Petroleum Hydrotreated Light (CAS 64742-47-8)

Acute

Dermal

| | | |
|------|--------|--------------|
| LD50 | Rabbit | > 2000 mg/kg |
|------|--------|--------------|

Inhalation

Vapor

| | | |
|------|-----|---------------------|
| LC50 | Rat | > 4.5 mg/l, 4 Hours |
|------|-----|---------------------|

Distillates Petroleum Hydrotreated Med (CAS 64742-46-7)

Acute

Dermal

| | | |
|------|--------|------------------------|
| LD50 | Rabbit | > 2000 mg/kg, 24 Hours |
|------|--------|------------------------|

Solvent Naphtha (petroleum), Heavy Arom. (CAS 64742-94-5)

Acute

Dermal

| | | |
|------|--------|--------------|
| LD50 | Rabbit | > 2000 mg/kg |
|------|--------|--------------|

Oral

| | | |
|------|-----|--------------|
| LD50 | Rat | > 2000 mg/kg |
|------|-----|--------------|

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation 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 Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

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. |
| Further information | None known. |

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.

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

| | |
|--------------------------------------|--|
| Persistence and degradability | No data is available on the degradability of any ingredients in the mixture. |
| Bioaccumulative potential | |
| Mobility in soil | No data available. |
| Other adverse effects | The product contains volatile organic compounds which have a photochemical ozone creation potential. |

13. Disposal considerations

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|--|---|
| 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. D003: Waste Reactive material |
| 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

DOT

| | |
|-------------------------------------|---|
| 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 available. |
| Environmental hazards | |
| Marine pollutant | No |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| Special provisions | N82 |
| Packaging exceptions | 306 |
| Packaging non bulk | None |
| Packaging bulk | None |

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, Flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not available.

Environmental hazards

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 Not applicable.

DOT



IATA; IMDG



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

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 1910.1001-1052)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous chemical Yes**Classified hazard categories** Flammable (gases, aerosols, liquids, or solids)
Gas under pressure
Aspiration hazard**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. New Jersey Worker and Community Right-to-Know Act**

Carbon Dioxide (CAS 124-38-9)

California Proposition 65**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

Distillates Petroleum Hydrotreated Med (CAS 64742-46-7)

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| 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) | 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) | No |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| Taiwan | Taiwan Toxic Chemical Substances (TCS) | 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 | 11-01-2016 |
| Revision date | 11-13-2017 |
| 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.