



SAFETY DATA SHEET

1. Identification

| | |
|---|--|
| Product identifier | LPS® ChainMate |
| Other means of identification | |
| Part Number | 02416 |
| Recommended use | A spray lubricant designed to penetrate chains and wire ropes, displace moisture and provide long lasting lubrication under high loads and humid conditions. |
| 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 aerosols | Category 1 |
| | Gases under pressure | Liquefied gas |
| Health hazards | Specific target organ toxicity, single exposure | Category 3 narcotic effects |
| 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 cause drowsiness or dizziness. |
| 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. Do not pierce or burn, even after use. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. |
| Response | If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. |
| Storage | Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Keep container tightly closed. 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 | % |
|---|--------------------------|------------|---------|
| residual oils, petroleum, solvent refined | | 64742-01-4 | 60 - 70 |
| Petroleum Gases, Liquefied, Sweetened | | 68476-86-8 | 20 - 30 |
| Acetone | | 67-64-1 | < 10 |
| Distillates Petroleum, Hydrotreated Light | | 64742-47-8 | 1 - 5 |
| Petroleum Oil | | 64741-88-4 | 1 - 5 |

4. First-aid measures

| | |
|---|---|
| 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 | Wash off with soap and plenty of water. Get medical attention if irritation develops and persists. |
| Eye contact | Any material that contacts the eye should be washed out immediately with water. 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. |
| Most important symptoms/effects, acute and delayed | Narcosis. Behavioral changes. Decrease in motor functions. Symptoms of overexposure can include shortness of breath, drowsiness, headaches, confusion, decreased coordination, visual disturbances and vomiting, and are reversible if exposure is stopped. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. |
| General information | 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

| | |
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| Suitable extinguishing media | Powder. Water. Foam. Carbon dioxide (CO ₂). |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may explode when exposed to heat or flame. |
| 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 | Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. |
| 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. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes. |
| General fire hazards | Extremely flammable aerosol. |

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. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid breathing gas. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. Use personal protection recommended in Section 8 of the SDS. |
| Methods and materials for containment and cleaning up | Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Following product recovery, flush area with 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. Do not re-use empty containers. Do not breathe gas. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

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 away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA Components

| Components | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum, Hydroreated Light (CAS 64742-47-8) | PEL | 5 mg/m ³ | Oil mist |

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

| Components | Type | Value |
|-----------------------|------|------------------------------------|
| Acetone (CAS 67-64-1) | PEL | 2400 mg/m ³ 1000 ppm |

ACGIH

Components

| Components | Type | Value | Form |
|---|------|---------------------|----------|
| Distillates Petroleum, Hydroreated Light (CAS 64742-47-8) | TWA | 5 mg/m ³ | Oil mist |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|-----------------------|------|---------|
| Acetone (CAS 67-64-1) | STEL | 750 ppm |
| | TWA | 500 ppm |

US. NIOSH: Pocket Guide to Chemical Hazards

| Components | Type | Value |
|-----------------------|------|----------------------------------|
| Acetone (CAS 67-64-1) | TWA | 590 mg/m ³ 250 ppm |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|-----------------------|---------|-------------|----------|---------------|
| Acetone (CAS 67-64-1) | 50 mg/l | Acetone | Urine | * |

* - For sampling details, please see the source document.

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

Chemical resistant gloves are recommended.

Other

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. |
| 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

| | |
|--|---------------------------------------|
| Physical state | Gas. |
| Form | Aerosol. |
| Color | Dark grey. Black. |
| Odor | Slight petroleum odor |
| Odor threshold | Not established |
| pH | Not applicable |
| Melting point/freezing point | Not established |
| Initial boiling point and boiling range | Not established |
| Flash point | < -4.0 °F (< -20.0 °C) Tag Closed Cup |
| Evaporation rate | Not established |
| Flammability (solid, gas) | Not available. |

Upper/lower flammability or explosive limits

| | |
|--|--------------------------|
| Flammability limit - lower (%) | Not established |
| Flammability limit - upper (%) | Not established |
| Explosive limit - lower (%) | Not available. |
| Explosive limit - upper (%) | Not available. |
| Vapor pressure | 35 psi @ 75° F |
| Vapor density | > 1 |
| Relative density | Not available. |
| Solubility(ies) | |
| Solubility (water) | 16 % (Soluble) |
| Partition coefficient (n-octanol/water) | Not established |
| Auto-ignition temperature | Not established |
| Decomposition temperature | Not established |
| Viscosity | 150 cP @ 75° F / 23.9° C |

Other information

| | |
|-------------------------------------|---|
| Density | 7.32 |
| Heat of combustion | > 30 kJ/g |
| Percent volatile | 17 % |
| Percent volatile temperature | 110 °F (43.33 °C) |
| Specific gravity | 0.88 @ 20°C |
| VOC (Weight %) | 22.33 % 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 | Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong oxidizing agents. Strong acids. |
| Hazardous decomposition products | Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion. |

11. Toxicological information

Information on likely routes of exposure

| | |
|---------------------|---|
| Ingestion | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |
| Inhalation | Narcotic effects. Prolonged inhalation may be harmful. |
| Skin contact | Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |

Symptoms related to the physical, chemical and toxicological characteristics Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Information on toxicological effects

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

| Components | Species | Test Results |
|--|---------|--|
| Acetone (CAS 67-64-1) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 15800 mg/kg 20 ml/kg |
| <i>Inhalation</i> | | |
| LC50 | Rat | 55700 ppm 76 mg/l, 4 Hours 50.1 mg/l 50.1 mg/l, 8 Hours |
| <i>Oral</i> | | |
| LD50 | Mouse | 3000 mg/kg |
| | Rabbit | 5340 mg/kg |
| | Rat | 5800 mg/kg 2.2 ml/kg |
| <i>Other</i> | | |
| LD50 | Mouse | 1297 mg/kg |
| | Rat | 5500 mg/kg |
| Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) | | |
| Acute | | |
| <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 |
| Petroleum Oil (CAS 64741-88-4) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | > 2000 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Rat | > 2.5 mg/l |

| Components | Species | Test Results |
|---|--|--------------|
| <i>Oral</i> LD50 | Rat | > 2000 mg/kg |
| residual oils, petroleum, solvent refined (CAS 64742-01-4) | | |
| Acute | | |
| <i>Dermal</i> LD50 | Rabbit | > 2000 mg/kg |
| <i>Inhalation</i> LC50 | Rat | > 2.5 mg/l |
| <i>Oral</i> 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 | Based on available data, the classification criteria are not met. | |
| Skin sensitization | Based on available data, the classification criteria are not met. | |
| 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. | |
| ACGIH Carcinogens | | |
| Acetone (CAS 67-64-1) | A4 Not classifiable as a human carcinogen. | |
| 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 | Narcotic effects. | |
| Specific target organ toxicity - repeated exposure | Based on available data, the classification criteria are not met. | |
| Aspiration hazard | Based on available data, the classification criteria are not met. | |
| 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 |
|--|-------------------------------|---|
| Acetone (CAS 67-64-1) | | |
| Aquatic | | |
| Crustacea | EC50 | Water flea (Daphnia magna) |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) |
| Distillates Petroleum, Hydrotreated Light (CAS 64742-47-8) | | |
| Aquatic | | |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) |
| Persistence and degradability | Not inherently biodegradable. | |
| Bioaccumulative potential | Not available. | |
| Partition coefficient n-octanol / water (log Kow) | | |
| LPS® ChainMate | > 1 | |
| Acetone | -0.24 | |
| 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. Contents under pressure. Do not puncture, incinerate or crush. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. 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 | D001: Waste Flammable material with a flash point <140 F 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 | 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. 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 applicable. |
| 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 bulk | None |

IATA

| | |
|-------------------------------------|---|
| 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. |
| ERG Code | 10L |
| Special precautions for user | Read safety instructions, SDS and emergency procedures before handling. |
| 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 | - |
| Packing group | Not applicable. |
| 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



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)

Acetone (CAS 67-64-1) 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 - Yes
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.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Acetone (CAS 67-64-1) 6532

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Acetone (CAS 67-64-1) 35 % weight/volumn

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1)

6532

US state regulations**US. Massachusetts RTK - Substance List**

Acetone (CAS 67-64-1)

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

Acetone (CAS 67-64-1)

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

Acetone (CAS 67-64-1)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

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) | 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) | 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 |
| 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 09-19-2013

Revision date 06-29-2014

Version # 03

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.

Revision Information

Hazard(s) identification: Supplemental information
 Composition / Information on Ingredients: Ingredients
 Physical & Chemical Properties: Multiple Properties
 Transport Information: Material Transportation Information
 Transport information: General information
 Regulatory Information: United States
 HazReg Data: North America
 GHS: Classification