SAFETY DATA SHEET

1. Identification
Product identifier LPS® Precision Clean (Aerosol)
Other means of identification
Part Number 02720
Recommended use An industrial cleaner designed to remove grime, oils and light grease from metal, concrete and other durable surfaces.
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 (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 Gases under pressure Liquefied gas
Health hazards Skin corrosion/irritation Category 2
Environment hazards Not classified.
OSHA defined hazards Not classified.
Label elements
Signal word Warning
Hazard statement Contains gas under pressure; may explode if heated. Causes skin irritation. Causes eye irritation.
Precautionary statement Prevention Wash thoroughly after handling. Wear protective gloves.
Response If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage Protect from sunlight. Store in a well-ventilated place.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC) None known.
Supplemental information None.

3. Composition/information on ingredients
Mixtures

Material name: LPS® Precision Clean (Aerosol)
4. First-aid measures

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

**Skin contact**
Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**
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.

**Ingestion**
Not likely, due to the form of the product. In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.

**Most important symptoms/effects, acute and delayed**
Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.

**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. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up.

**General fire hazards**
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. 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. Stop leak if you can do so without risk. 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. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

**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. Ground and bond containers when transferring material. Do not re-use empty containers. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities

Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. 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

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

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, Copper Compounds (CAS 7440-50-8)</td>
<td>PEL</td>
<td>1 mg/m³</td>
<td>Dust and mist.</td>
</tr>
<tr>
<td>Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)</td>
<td>PEL</td>
<td>0.1 mg/m³, 600 mg/m³</td>
<td>Fume.</td>
</tr>
<tr>
<td>Glycerin (CAS 56-81-5)</td>
<td>PEL</td>
<td>100 ppm</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Morpholine (CAS 110-91-8)</td>
<td>PEL</td>
<td>70 mg/m³, 20 ppm</td>
<td>Total dust.</td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, Copper Compounds (CAS 7440-50-8)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Dust and mist.</td>
</tr>
<tr>
<td>Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)</td>
<td>STEL</td>
<td>0.2 mg/m³, 150 ppm</td>
<td>Fume.</td>
</tr>
<tr>
<td>Morpholine (CAS 110-91-8)</td>
<td>TWA</td>
<td>100 ppm</td>
<td>Skin designation applies.</td>
</tr>
</tbody>
</table>

US. NIOSH: Pocket Guide to Chemical Hazards

<table>
<thead>
<tr>
<th>Components</th>
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<th>Value</th>
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<tbody>
<tr>
<td>Copper, Copper Compounds (CAS 7440-50-8)</td>
<td>TWA</td>
<td>1 mg/m³</td>
<td>Dust and mist.</td>
</tr>
<tr>
<td>Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)</td>
<td>STEL</td>
<td>900 mg/m³</td>
<td>Skin designation applies.</td>
</tr>
<tr>
<td>Morpholine (CAS 110-91-8)</td>
<td>STEL</td>
<td>105 mg/m³</td>
<td>Skin designation applies.</td>
</tr>
</tbody>
</table>

Biological limit values

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

Exposure guidelines

US - California OELs: Skin designation

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8) Can be absorbed through the skin.
Morpholine (CAS 110-91-8) Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Morpholine (CAS 110-91-8) Skin designation applies.

US - Tennessee OELs: Skin designation

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8) Can be absorbed through the skin.
Morpholine (CAS 110-91-8) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8) Can be absorbed through the skin.
Morpholine (CAS 110-91-8) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8) Can be absorbed through the skin.

Morpholine (CAS 110-91-8) Can be absorbed through the skin.

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

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8) Can be absorbed through the skin.

Morpholine (CAS 110-91-8) Can be absorbed through the skin.

**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**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Hand protection**

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Other**

Wear appropriate chemical resistant clothing.

**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**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Gas.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Aerosol.</td>
</tr>
<tr>
<td>Color</td>
<td>Greenish-blue.</td>
</tr>
<tr>
<td>Odor</td>
<td>Citrus.</td>
</tr>
</tbody>
</table>

**Odor threshold**

Not available.

**pH**

12.9

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

212 °F (100 °C)

**Flash point**

Not Established

**Evaporation rate**

1 BuAc

**Flammability (solid, gas)**

Non flammable gas.

**Upper/lower flammability or explosive limits**

<table>
<thead>
<tr>
<th>Flammability limit - lower (%)</th>
<th>Not Established</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not Established</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Vapor pressure**

< 17.5 mm Hg @20°C

**Vapor density**

> 1

**Relative density**

Not available.

**Solubility(ies)**

Solubility (water) 100 % (in water)

**Partition coefficient**

(n-octanol/water) Not available.

**Auto-ignition temperature**

Not available.
Decomposition temperature Not available.
Viscosity $< 3 \text{ cSt}$
Viscosity temperature $77 \, ^\circ\text{F} \, (25 \, ^\circ\text{C})$

Other information
- Explosive properties: Not explosive.
- Heat of combustion: $< 20 \, \text{kJ/g}$
- Oxidizing properties: Not oxidizing.
- Percent volatile: $> 97 \%$
- Specific gravity: $1 \, - \, 1.03 \, @ \, 20^\circ\text{C}$
- VOC: $5.8 \%$ per U.S. State and Federal Consumer Product Regulations

10. Stability and reactivity

Reactivity
Reacts violently with strong acids. This product may react with oxidizing agents.

Chemical stability
Material is stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

Conditions to avoid
Heat. Contact with incompatible materials. Do not mix with other chemicals.

Incompatible materials
Acids. Oxidizing agents.

Hazardous decomposition products
Carbon oxides.

11. Toxicological information

Information on likely routes of exposure
- Inhalation: Prolonged inhalation may be harmful.
- Skin contact: Causes skin irritation.
- Eye contact: Causes eye irritation.
- Ingestion: Expected to be a low ingestion hazard. May cause discomfort if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics
Causes eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. Exposure may cause temporary irritation, redness, or discomfort.

Information on toxicological effects

Acute toxicity
Not expected to be acutely toxic.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, Copper Compounds (CAS 7440-50-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>Rat</td>
<td>$&gt; 2000 , \text{mg/kg}, , 24 , \text{Hours}$</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rat</td>
<td>$&gt; 5.11 , \text{mg/l}, , 4 , \text{Hours}$</td>
</tr>
<tr>
<td>LC50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Rat</td>
<td>$481 , \text{mg/kg}$</td>
</tr>
<tr>
<td>LD50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)

| Acute | | |
| Dermal | Rabbit | $> 19020 \, \text{mg/kg}, \, 24 \, \text{Hours}$ |
| LD50 | | |

Glycerin (CAS 56-81-5)

| Acute | | |
| Dermal | Guinea pig | $45 \, \text{ml/kg}, \, \text{Days}$ |
| LD50 | | |
### Morpholine (CAS 110-91-8)

**Acute**
- **Dermal**
  - LD50: Rabbit, 500 mg/kg, 24 Hours
  - LD50: Guinea pig, 900 mg/kg
  - Mouse, 720 mg/kg
  - Rat, 1050 mg/kg
  - 1.05 g/kg

**Oral**
- LD50: Rat, 18300 mg/kg

**Inhalation**
- LC50: Rat, 4655 mg.min/l, 7 Hours

### Petroleum Gases, Liquefied, Sweetened (CAS 68476-86-8)

**Acute**
- **Inhalation**
  - Gas
  - LC50: Mouse, 1237 mg/l, 120 Minutes
  - 52 %, 120 Minutes
  - LC50: Rat, 1355 mg/l

**Skin corrosion/irritation**
- Causes skin irritation.

**Serious eye damage/eye irritation**
- Causes eye 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.

**ACGIH Carcinogens**
- Morpholine (CAS 110-91-8)
  - A4 Not classifiable as a human carcinogen.

**IARC Monographs. Overall Evaluation of Carcinogenicity**
- Morpholine (CAS 110-91-8)
  - 3 Not classifiable as to carcinogenicity to humans.

- 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**
- Not classified.

**Chronic effects**
- Prolonged or repeated contact may cause drying, cracking, or irritation.

**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.

<table>
<thead>
<tr>
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<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper, Copper Compounds (CAS 7440-50-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Water flea (Daphnia magna)</td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fathead minnow (Pimephales promelas)</td>
</tr>
<tr>
<td>Glycerin (CAS 56-81-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Rainbow trout,donaldson trout (Oncorhynchus mykiss)</td>
</tr>
<tr>
<td>Morpholine (CAS 110-91-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Aquatic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Zebra danio (Danio rerio)</td>
</tr>
</tbody>
</table>

Persistence and degradability
Expected to biodegrade.

Bioaccumulative potential
Partition coefficient n-octanol / water (log Kow)
Glycerin: -1.76
Morpholine: -0.86

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.

D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
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, non-flammable
Transport hazard class(es)
Class: 2.2
Subsidiary risk: -
Label(s): 2.2
Packing group: Not applicable.
Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

IATA
UN number: UN1950
UN proper shipping name: AEROSOLS, non-flammable
Transport hazard class(es)
Class: 2.2
Subsidiary risk: -
Label(s): 2.2
### 1. 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)**
  - Copper, Copper Compounds (CAS 7440-50-8) Listed.

- **SARA 304 Emergency release notification**
  - Not regulated.

  - Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
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)
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Glycerin (CAS 56-81-5) Other Flavoring Substances with OSHA PEL's

US state regulations
US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Morpholine (CAS 110-91-8)
US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))
Copper, Copper Compounds (CAS 7440-50-8)
Petroleum Gases, Liquefied, Sweetened (CAS 68476-86-8)
US. Massachusetts RTK - Substance List
Copper, Copper Compounds (CAS 7440-50-8)
Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)
Glycerin (CAS 56-81-5)
Morpholine (CAS 110-91-8)
US. New Jersey Worker and Community Right-to-Know Act
Copper, Copper Compounds (CAS 7440-50-8)
Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)
Glycerin (CAS 56-81-5)
Morpholine (CAS 110-91-8)
US. Pennsylvania Worker and Community Right-to-Know Law
Copper, Copper Compounds (CAS 7440-50-8)
Dipropylene Glycol Monomethyl Ether (CAS 34590-94-8)
Glycerin (CAS 56-81-5)
Morpholine (CAS 110-91-8)
US. Rhode Island RTK
Copper, Copper Compounds (CAS 7440-50-8)
US. California Proposition 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

16. Other information, including date of preparation or last revision
Issue date 07-20-2016
Version # 01
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.