



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product identifier	LPS® Precision Clean (Concentrate)	
Version #	03	
Issue date	12-11-2012	
Revision date	04-03-2014	
Supersedes date	04-01-2014	
CAS #	Mixture	
Part Number	C02701, C02705, C02755	
Product use	An industrial cleaner designed to remove grime, oils and light grease from metal, concrete and other durable surfaces.	
Manufacturer information	LPS Laboratories, a division of Illinois Tool Works 4647 Hugh Howell Rd Tucker, Georgia 30084 United States www.lpslabs.com 1-800-241-8334/ 770-243-8800 Chemtrec 1-800-424-9300	
Supplier	Not available.	

2. Hazards Identification

Emergency overview	WARNING Harmful if absorbed through skin. Causes skin and eye irritation.
Potential health effects	
Routes of exposure	Eye contact. Skin contact. Inhalation. Ingestion.
Eyes	Avoid contact with eyes. May irritate eyes.
Skin	Avoid contact with the skin. May cause skin irritation. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Inhalation	Do not breathe dust/fume/gas/mist/vapors/spray. May cause irritation of respiratory tract.
Ingestion	Do not ingest. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Signs and symptoms	Irritant effects. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Potential environmental effects	Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Components	CAS #	Percent
DIPROPYLENE GLYCOL METHYL ETHER	34590-94-8	1 - 5
SODIUM METASILICATE	6834-92-0	1 - 5
Tetrapotassium pyrophosphate	7320-34-5	1 - 5

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin.
Inhalation	Move to fresh air. 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. Get medical attention, if needed.

Ingestion	Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If ingestion of a large amount does occur, call a poison control center immediately.
Notes to physician	In case of shortness of breath, give oxygen. Symptoms may be delayed.
General advice	In case of shortness of breath, give oxygen. Get medical attention if symptoms occur. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm.

5. Fire Fighting Measures

Flammable properties	Not flammable by WHMIS criteria.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Protection of firefighters	
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	Not available.
Explosion data	
Sensitivity to static discharge	None known.
Sensitivity to mechanical impact	None known.
Hazardous combustion products	Not available.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. For personal protection, see section 8 of the MSDS.
Environmental precautions	Do not contaminate water.
Methods for containment	Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Should not be released into the environment. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling	Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. When using do not eat or drink. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling. Avoid release to the environment.
Storage	Store in a closed container away from incompatible materials. Store away from incompatible materials (see Section 10 of the MSDS). Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	909 mg/m3
	TWA	150 ppm 606 mg/m3 100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	150 ppm
	TWA	100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	STEL	909 mg/m3
	TWA	150 ppm 606 mg/m3 100 ppm

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

Components	Type	Value
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)	PEL	600 mg/m3
		100 ppm

Biological limit values

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

Exposure guidelines

Canada - Alberta OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)

Can be absorbed through the skin.

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. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles). Eye wash fountain is recommended.

Skin protection

Wear suitable protective clothing. Wear protective gloves.

Respiratory protection

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.

9. Physical & Chemical Properties**Appearance****Physical state**

Liquid.

Form

Liquid.

Color

Greenish-blue.

Odor

Citrus

Odor threshold

Not available.

pH

13

Vapor pressure

< 17 mm Hg @20°C

Vapor density

> 1

Boiling point

212 °F (100 °C)

Melting point/Freezing point

Not available.

Solubility (water)

100 % (in water)

Specific gravity

1.06

Relative density

Not available.

Flash point

None

Flammability limits in air, upper, % by volume

Not Established

Flammability limits in air, lower, % by volume

Not Established

Auto-ignition temperature

Not available.

VOC

1.5 % per U.S. State and Federal Consumer Product Regulations

Evaporation rate

1 BuAc

Percent volatile

> 90 %

**Partition coefficient
(n-octanol/water)** Not available.

Other data

Density 8.87 lb/gal

10. Chemical Stability & Reactivity Information

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

Chemical stability Material is stable under normal conditions.

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

Incompatible materials Acids. Strong oxidizing agents. Oxidizing agents.

Hazardous decomposition products Carbon oxides. Nitrogen oxides (NOx).

Possibility of hazardous reactions Reacts violently with strong acids. This product may react with oxidizing agents. Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components	Species	Test Results
DIPROPYLENE GLYCOL METHYL ETHER (CAS 34590-94-8)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	10 ml/kg
		9.5 g/kg
	Rat	> 19020 mg/kg
		> 20 ml/kg
<i>Inhalation</i>		
LC50	Rat	> 275 ppm
<i>Oral</i>		
LD50	Dog	7.5 ml/kg
	Rat	> 5000 mg/kg
		5.4 ml/kg
SODIUM METASILICATE (CAS 6834-92-0)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 5000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 2.06 mg/l
<i>Oral</i>		
LD50	Mouse	661.5 - 896.3 mg/kg
	Rat	600 mg/kg
Tetrapotassium pyrophosphate (CAS 7320-34-5)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 300 mg/kg
	Rat	> 2000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 0.58 mg/l
<i>Oral</i>		
LD100	Rat	<= 5000 mg/kg
LD50	Mouse	2.3 g/kg
	Rat	300 - 2000 mg/kg

Components	Species	Test Results
<i>Other</i> LD50	Rat	233 mg/kg
Acute effects	Based on available data, the classification criteria are not met.	
Sensitization	Not classified.	
Local effects	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.	
Chronic effects	Prolonged or repeated contact may cause drying, cracking, or irritation.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/irritation	Causes serious eye irritation.	
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Reproductive effects	This product is not expected to cause reproductive or developmental effects.	
Teratogenicity	No data available for this product.	
Synergistic materials	No data available for this product.	

12. Ecological Information

Ecotoxicological data	No ecotoxicity data noted for the ingredient(s).
Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity	Not available.
Persistence and degradability	Expected to biodegrade.
Mobility in environmental media	This product is miscible in water.

13. Disposal Considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
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

TDG	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled
WHMIS classification	D2B - Other Toxic Effects-TOXIC



16. Other Information

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.

Prepared by

Not available.

This data sheet contains changes from the previous version in section(s):

Physical & Chemical Properties: Multiple Properties