



SAFETY DATA SHEET

1. Identification

Product identifier	LPS® Food Grade Electronic Cleaner
Other means of identification	
Part Number	58116, C58116
Recommended use	A spray cleaner designed to remove dirt, moisture, dust, flux or oxides from the internal components of electronic or precision equipment such as circuit boards.
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 2
	Gases under pressure	Liquefied gas
Health hazards	Skin corrosion/irritation	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure (inhalation)	Category 2 (nervous system)
Environmental hazards	Not classified.	

Label elements



Signal word	Warning
Hazard statement	Flammable aerosol. Contains gas under pressure; may explode if heated. Causes skin irritation. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.
Precautionary statement	
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response	IF ON SKIN: Wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. 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	None known.
Supplemental information	None known.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Naphtha (petroleum), Hydrotreated Light		64742-49-0	60 - 70
Ethane, 1,1,1,2-tetrafluoro-(hfc-134a)		811-97-2	20 - 30
ISOPROPANOL		67-63-0	1 - 10
N-HEXANE		110-54-3	1 - 2
PENTANE		109-66-0	1 - 2

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

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
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	Rinse with water. 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	May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
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	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). 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.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
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. 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. 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	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. Do not breathe gas. 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. 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.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. 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

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. 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. Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Use only in well-ventilated areas. Wear appropriate personal protective equipment. 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

US. ACGIH Threshold Limit Values

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-HEXANE (CAS 110-54-3)	TWA	50 ppm
PENTANE (CAS 109-66-0)	TWA	1000 ppm

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

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	984 mg/m ³
	TWA	400 ppm 492 mg/m ³
N-HEXANE (CAS 110-54-3)	TWA	200 ppm 176 mg/m ³ 50 ppm

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

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-HEXANE (CAS 110-54-3)	TWA	20 ppm

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

Components	Type	Value
PENTANE (CAS 109-66-0)	TWA	600 ppm

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

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-HEXANE (CAS 110-54-3)	TWA	50 ppm
PENTANE (CAS 109-66-0)	TWA	1000 ppm

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

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	400 ppm
	TWA	200 ppm
N-HEXANE (CAS 110-54-3)	TWA	50 ppm
PENTANE (CAS 109-66-0)	TWA	600 ppm

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

Components	Type	Value
ISOPROPANOL (CAS 67-63-0)	STEL	1230 mg/m3
	TWA	500 ppm 983 mg/m3 400 ppm
N-HEXANE (CAS 110-54-3)	TWA	176 mg/m3 50 ppm
PENTANE (CAS 109-66-0)	TWA	350 mg/m3 120 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ISOPROPANOL (CAS 67-63-0)	40 mg/l	Acetone	Urine	*
N-HEXANE (CAS 110-54-3)	0.4 mg/l	2,5-Hexanedione, without hydrolysis	Urine	*

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

Exposure guidelines

Canada - Alberta OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

N-HEXANE (CAS 110-54-3) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

N-HEXANE (CAS 110-54-3) 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	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. 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

Physical state	Gas.
Form	Aerosol.
Color	Clear. Colorless.
Odor	Hydrocarbon-like.
Odor threshold	Not available.
pH	Not applicable.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	136.99 °F (58.33 °C) Dispensed liquid.
Flash point	< 1.4 °F (< -17.0 °C) Tag Closed Cup
Evaporation rate	< 1 BuAc (Ethyl Ether = 1)
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	352.53 mm Hg @ 38°C
Vapor density	> 1 (air = 1)
Relative density	Not available.
Solubility(ies)	
Solubility (water)	< 10 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 3 cSt
Viscosity temperature	77 °F (25 °C)
Other information	
Density	5.65
Explosive properties	Not explosive.
Heat of combustion	> 30 kJ/g

Oxidizing properties	Not oxidizing.
Percent volatile	100 %
Specific gravity	0.68
VOC	74 % 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. Contact with incompatible materials.
Incompatible materials	Acids. Strong oxidizing agents. Isocyanates. Chlorine.
Hazardous decomposition products	Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Causes skin irritation.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics May cause drowsiness and dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
ISOPROPANOL (CAS 67-63-0)		
Acute		
Dermal		
LD50	Rabbit	16.4 ml/kg, 24 Hours
Oral		
LD50	Rat	4.7 g/kg
Naphtha (petroleum), Hydrotreated Light (CAS 64742-49-0)		
Acute		
Dermal		
LD50	Rabbit	> 1900 mg/kg, 24 Hours
Oral		
LD50	Rat	> 2000 mg/kg
N-HEXANE (CAS 110-54-3)		
Acute		
Dermal		
LD50	Rabbit	> 5 ml/kg, 4 Hours
Inhalation		
<i>Vapor</i>		
LC50	Rat	73860 ppm, 4 Hours
Oral		
LD50	Rat	49 ml/kg

Components	Species	Test Results
PENTANE (CAS 109-66-0)		
Acute		
Inhalation		
<i>Vapor</i>		
LC50	Rat	> 25.3 mg/l, 4 Hours
Oral		
LD50	Rat	> 2000 mg/kg
Skin corrosion/irritation	Causes skin 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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
ACGIH Carcinogens		
ISOPROPANOL (CAS 67-63-0)	A4 Not classifiable as a human carcinogen.	
Canada - Manitoba OELs: carcinogenicity		
ISOPROPANOL (CAS 67-63-0)	Not classifiable as a human carcinogen.	
Reproductive toxicity	Suspected of damaging fertility or the unborn child.	
Specific target organ toxicity - single exposure	May cause drowsiness and dizziness.	
Specific target organ toxicity - repeated exposure	May cause damage to organs (nervous system) through prolonged or repeated exposure by inhalation.	
Aspiration hazard	Not likely, due to the form of the product.	
Chronic effects	May cause damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.	
Further information	Symptoms may be delayed.	

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
ISOPROPANOL (CAS 67-63-0)		
Aquatic		
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>) > 1400 mg/l, 96 hours
N-HEXANE (CAS 110-54-3)		
Aquatic		
Fish	LC50	Fathead minnow (<i>Pimephales promelas</i>) 2.101 - 2.981 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.	
Bioaccumulative potential		
Partition coefficient n-octanol / water (log Kow)		
Ethane, 1,1,1,2-tetrafluoro-(hfc-134a)	1.06	
ISOPROPANOL	0.05	
N-HEXANE	3.9	
PENTANE	3.39	
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. 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	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 applicable.
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	-
Label(s)	2.1
Packing group	Not applicable.
Environmental hazards	No
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

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 applicable.
Environmental hazards	
Marine pollutant	No
EmS	Not available.
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.



15. Regulatory information

Canadian regulations

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Ethane, 1,1,1,2-tetrafluoro-(hfc-134a) (CAS 811-97-2)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
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)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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

Issue date	11-15-2016
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.