



MATERIAL SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Material name LPS® T-91
Recommended use A pH neutral degreaser designed to remove grease, oil and other contaminants from various surfaces.
Version # 03
CAS # Mixture
Part Number M06328, M06301, M06305, M06355
Supplier Name MRO Chem Pty Ltd
Address Level 19, 644 Chapel Street,
South Yarra, Vic 3141, Australia.
Tel: +61 (3)9823 6273
Website: <http://www.mrochem.com.au>
In Case of Emergency (Australia) +61 (4)3448 1129 (US) +1 703-527-3887
Manufacturer
Company name LPS Laboratories, a division of Illinois Tool Works, Inc.
Address 4647 Hugh Howell Rd., Tucker, GA 30084 (U.S.A.)
Website <http://www.lpslabs.com>
E-mail sds@lpslabs.com

2. HAZARDS IDENTIFICATION

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS. This preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification Xi;R36/38
Risk phrase(s) R36/38 Irritating to eyes and skin.
Safety phrase(s) S23 Do not breathe gas/fumes/vapor/spray.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent
1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride	4080-31-3	< 10
Alcohols, Ethoxylated	68439-46-3	< 10
Hexamethylenetetramine	100-97-0	< 10
Other components below reportable levels		> 60

4. FIRST AID MEASURES

Inhalation Under normal conditions of intended use, this material is not expected to be an inhalation hazard. If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, get medical attention.
Skin contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation develops and persists.
Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Call a physician or Poison Control Center immediately.
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.
General advice In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of shortness of breath, give oxygen. Keep victim under observation.
Notes to physician Provide general supportive measures and treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media Use fire-extinguishing media appropriate for surrounding materials.
Extinguishing media which must not be used for safety reasons None known.
Unusual fire & explosion hazards Not flammable by OSHA criteria. The product is not flammable.

Specific hazards	None known.
Special protective equipment for fire-fighters	Wear suitable protective equipment.
HAZCHEM code	None.
Hazardous combustion products	May include oxides of carbon.
General fire hazards	No unusual fire or explosion hazards noted.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear appropriate personal protective equipment. Do not touch or walk through spilled material. Avoid inhalation of vapors and spray mists.
Environmental precautions	No special environmental precautions required.
Containment procedures	Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Collect spillage.
Methods for cleaning up	This product is miscible in water. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Soak up with inert absorbent material. Following product recovery, flush area with water. For waste disposal, see section 13 of the MSDS.

7. HANDLING AND STORAGE

Handling	Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Do not breathe vapors or spray mist. Do not ingest. Wash hands thoroughly after handling. Use personal protective equipment as required.
Storage	Storage temperature: between 0°F and 49°F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Recommended monitoring procedures	
Additional exposure data	Not available.
Engineering measures to reduce exposure	General ventilation normally adequate.
Personal protective equipment	
Respiratory protection	No personal respiratory protective equipment normally required. Avoid breathing dust/fume/gas/mist/vapors/spray. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hand protection	For prolonged or repeated skin contact use suitable protective gloves. Chemical resistant gloves are recommended.
Eye protection	Wear safety glasses with side shields. Eye wash fountain and emergency showers are recommended.
Skin and body protection	Avoid contact with the skin. Wear suitable protective clothing and gloves.
General	Avoid contact with eyes. Avoid contact with skin. Use personal protective equipment as required.
Environmental exposure controls	Contain spills and prevent releases and observe national regulations on emissions.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid.
Physical state	Liquid.
Form	Liquid.
Color	Clear.Colorless.
Odor	Mild. Soapy.
Odor threshold	Not available.
pH	8 - 9
Vapor pressure	18 mm Hg
Vapor density	Not established
Boiling point	> 212 °F (> 100 °C)
Melting point/Freezing point	Not available.
Solubility (water)	Water soluble
Specific gravity	1.04
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 established
VOC	0 % per State and Federal Consumer Product Regulations
Evaporation rate	1 BuAc (Water = 1)
Viscosity	~5 cP
Percent volatile	70 - 90 %
Partition coefficient (n-octanol/water)	< 0

10. STABILITY AND REACTIVITY

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Excessive heat.
Materials to avoid	None known.
Hazardous decomposition products	Carbon oxides. Nitrogen oxides (NOx).
Hazardous polymerization	Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Toxicological data

Components	Species	Test Results
1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride (CAS 4080-31-3)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	565 mg/kg
<i>Oral</i>		
LD50	Rabbit	78.5 mg/kg
	Rat	500 mg/kg
Hexamethylenetetramine (CAS 100-97-0)		
Acute		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg
<i>Oral</i>		
LD50	Mouse	1853 mg/kg
	Rat	9200 mg/kg

* Estimates for product may be based on additional component data not shown.

Acute toxicity	Based on available data, the classification criteria are not met.
Routes of exposure	Eye contact. Skin contact. Inhalation. Ingestion.
Chronic toxicity	Prolonged or repeated contact may cause drying, cracking, or irritation.
Sensitization	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductivity	Based on available data, the classification criteria are not met.
Epidemiology	No epidemiological data is available for this product.
Local effects	Irritating to eyes and skin. Irritating to respiratory system. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Symptoms and target organs	Irritating to eyes, respiratory system and skin. Defatting of the skin.
Further information	This product has no known adverse effect on human health.

12. ECOLOGICAL INFORMATION

Ecotoxicological data

Components		Species	Test Results
Alcohols, Ethoxylated (CAS 68439-46-3)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	2.9 - 8.5 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	6 - 12 mg/l, 96 hours
Hexamethylenetetramine (CAS 100-97-0)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	29868 - 43390 mg/l, 48 hours
Fish	LC50	Bleak (Alburnus alburnus)	> 10000 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Not expected to be harmful to aquatic organisms.
Persistence and degradability	Expected to biodegrade.
Mobility	This product is miscible in water. Readily absorbed into soil.
Bioaccumulation	None known.

Bioaccumulative potential

Octanol/water partition coefficient log Kow

LPS® T-91	< 0
1-(3-Chloroallyl)-3,5,7-triaza-1-azoniaadamantane chloride	-0.1

Environmental effects	Not classified as an environmental hazard.
Aquatic toxicity	Not classified.

13. DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose of contents/container in accordance with local/regional/national/international 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	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

ADG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not available.

15. REGULATORY INFORMATION

National regulations This Material Safety Data Sheet was prepared in accordance with the Australia National Code of Practice for the Preparation of Material Safety Data Sheets (NOHSC: 2011.) No poison schedule number allocated.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
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)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
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

Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
Issue date	02-04-2013
Revision date	12-09-2013
This data sheet contains changes from the previous version in section(s):	Composition / Information on Ingredients: Disclosure Overrides Physical & Chemical Properties: Multiple Properties Regulatory Information: Risk Phrases - Labeling GHS: Classification