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MATERIAL SAFETY DATA SHEET **PRODUCT** **LEMSOLV INDUSTRIAL**

1. DESCRIPTION / PROPERTIES (nature, reactivity):

A solvent cleaner based on natural oils derived from citrus fruits blended with surface active agents. Non-toxic, readily biodegradable. Pleasant odour.

2. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS NO	EINECS	% CONCENTRATION	HAZARD	RISK PHRASES	OES
Orange terpene	8028-48-6	232-433-8	30 → 60%	X _n	R10,38,65,52/53	-
Dipropylene glycol mono methyl ether	34590-94-8	252-104-2	30 → 60%			OES
Alcohol ethoxylate	*	*	5 → 10%	X _n	R22, R41	-

* Proprietary status pending

3. HAZARD IDENTIFICATION

a) **Fire/Explosion Hazard (stability, flammability, combustion products):**

Product is flammable. Flash point 57°C. Closed cup.

b) **Health Hazard (inhalation, ingestion, contact with skin or eyes):**

Irritating to the eyes and skin. Prolonged and repeated contact with skin may lead to defatting and dryness. Avoid contact with skin and in particular, with the eyes. Low risk from inhalation but avoid excessive inhalation of vapour e.g. on heating etc. Low order of acute oral toxicity but do not ingest. May cause lung damage if swallowed.

c) **Environmental hazard:**

Harmful: may cause long term adverse effects in the aquatic environment. This material is a VOC.

4. FIRST AID MEASURES

- INHALATION** - Low risk in normal usage. Remove to fresh air. Rest and keep warm. If symptoms of distress persist seek medical attention.
- SKIN CONTACT** - Wash affected area thoroughly with clean water. Remove contaminated clothing and launder before re-use.
- EYE CONTACT** - Irrigate with plenty of clean water. Obtain medical advice.
- INGESTION** - Do not swallow, wash out mouth with water. If swallowed drink water and obtain medical attention. Do not induce vomiting.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Since the product is flammable, if involved in a fire, use extinguishing media appropriate to the source of the fire, e.g. water spray/mist, carbon dioxide, dry powder, foam. Do not use water in a jet, which may spread the fire.

Protection for fire fighters:

Wear self-contained breathing apparatus. Wear protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Mark out contaminated area with signs and prevent access to unauthorised personnel.

Environmental Precautions:

Prevent discharge of large quantities to drain or water courses.

Clean up Procedures:

Disperse small spillages with large excess of water. Large spillages - contain, absorb and pick up, place in sealed containers for disposal via licensed contractor. Wash down traces with excess of water.

7. HANDLING AND STORAGE

Handling:

Does not require any specific measures.

Storage:

May be stored for periods over six months in plastic containers as supplied.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

OES (2-methoxymethylethoxy)propanol 8hr TWA 50ppm / 308mg/m³ (EH40 2002)

Engineering Controls: Provide eyewash station

Personal Protection: **Hand:** Use protective gloves made of neoprene or nitrile.

Eyes: Wear tightly fitting safety goggles.

9. PHYSICAL AND CHEMICAL PROPERTIES

Density at 20°C:	0.86
Vapour Pressure at 20°C:	<5 mm/Hg
Solubility in water at 20°C:	Dispersible
pH value:	Not applicable
Flash point:	57°C closed cup
Thermal Decomposition:	CO ₂ , CO, smoke
Hazardous reactions:	Avoid strong oxidisers.

10. STABILITY AND REACTIVITY

Stability:	Stable.
Materials to avoid:	Avoid contact with strong oxidisers
Hazardous decomposition products:	None known

11. TOXICOLOGICAL INFORMATION

Health Effects

This product is a complex substance that contains orange terpenes. If unprotected, orange terpene may form an oxide, which has been shown to be a skin sensitiser. However, the product contains an anti-oxidant as a stabiliser to minimise this risk.

Respiratory:	Not likely to occur.
Skin:	Irritating to skin
Eyes:	Irritating to eyes
Ingestion:	Low acute toxicity. May cause irritation to mucous membranes in mouth, throat, stomach and intestinal canal. May cause lung damage if swallowed.

Toxicological Data

For individual components:

Component	Acute Toxicity
Dipropylene glycol mono methyl ether	LD50 oral (rat): 5000mg/kg
Orange terpenes	LD50 oral (rat): 4400mg/kg
Alcohol ethoxylate	Oral: 200< LD50<2000mg./kg Dermal: LD50>2000mg/kg Inhalation: LC50>5mg/L

12. ECOLOGICAL INFORMATION**Ecotoxicity**

For individual components:

Component	Acute Toxicity
Orange terpenes	EC50 Daphnia magna 48h 12.3mg/L
Alcohol ethoxylate	Fish: 1 < LC50 < 10mg./L Daphnia: 1 < LC50 < 10mg./L Algae: 1 < LC50 < 10mg./L

13. DISPOSAL CONSIDERATION

Disposal Methods: Disperse small spillages with large excess of water. Return unwanted material to the supplier.

14. TRANSPORT INFORMATION

Flammable liquid n.o.s. Contains Orange terpenes. UN No. 1993 Class 3 packing group III Flammable material for transportation. Flash Point 57°C (Closed Cup)

15. REGULATORY INFORMATION**Xn Harmful**

R36/38 Irritating to skin and eyes
 R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.
 R65 Harmful: may cause lung damage if swallowed
 R10 Flammable

S24 Avoid contact with the skin
 S26 In case of contact with the eyes rinse immediately with plenty of water and seek medical advice.
 S28 After contact with skin, wash immediately with plenty of water.
 S36 Wear suitable protective clothing.
 S61 Avoid release to the environment. Refer to special instructions/safety data sheet.
 S23 Do not breathe vapour/spray (spray coat method).

Regulatory Information

UK Regulatory References: The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

EH40/2002: Occupational Exposure Limits 2002.

EC Directives: Dangerous Preparations Directive (1999/45/EC).
 Safety Data Sheets Directive (2001/58/EC).

Approved Code of Practice: The Compilation of Safety Data Sheets.

16. OTHER INFORMATION**PLEASE NOTE:**

The above information is based on the present state of our knowledge at the time of publication. It is given in good faith, no warranty is implied with respect to quality or specification of product. The user must satisfy himself that the product is entirely suitable.