



SAFETY DATA SHEET DRY FILM LUBRICANT

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME DRY FILM LUBRICANT
PRODUCT NO. DFL
EDFL200D
ZE
APPLICATION Lubricant
SUPPLIER ELECTROLUBE. A division of
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2 HAZARDS IDENTIFICATION

Extremely flammable

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLASSIFICATION (1999/45) F+;R12. N;R51/53. R66, R67.

ENVIRONMENT

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements.

PHYSICAL AND CHEMICAL HAZARDS

Aerosol containers can explode when heated, due to excessive pressure build-up. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
PENTANE	203-692-4	109-66-0	80-100%	F+;R12 Xn;R65 R66 R67 N;R51/53
PROPAN-2-OL	200-661-7	67-63-0	1-5%	F;R11 Xi;R36 R67

The Full Text for all R-Phrases is Displayed in Section 16

COMPOSITION COMMENTS

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Treat symptomatically

INHALATION

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention. Get medical attention.

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INGESTION

Immediately rinse mouth and provide fresh air.

SKIN CONTACT

Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Powder. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk.

UNUSUAL FIRE & EXPLOSION HAZARDS

Aerosol cans may explode in a fire.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Absorb in vermiculite, dry sand or earth and place into containers. Ventilate well.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Avoid spilling, skin and eye contact. Provide good ventilation.

STORAGE PRECAUTIONS

Store at moderate temperatures in dry, well ventilated area.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
PENTANE	WEL	600 ppm	1800 mg/m3			
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3	

WEL = Workplace Exposure Limit.

RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

HAND PROTECTION

Protective gloves must be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved chemical safety goggles where eye exposure is reasonably probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

HYGIENE MEASURES

Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. **DO NOT SMOKE IN WORK AREA!**

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Aerosol Liquid
COLOUR	Milky.
ODOUR	Hydrocarbon
PHYSICAL DATA COMMENTS	Information given concerns the major ingredient.
VOLATILITY DESCRIPTION	Volatile.
SOLUBILITY	Immiscible with water
BOILING POINT (°C)	>35 (>95 F)
MELTING POINT (°C)	<-50 (-58 F)

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RELATIVE DENSITY	0.655 @ 20 °C (68 F)
BULK DENSITY	655 kg/m ³
VAPOUR PRESSURE	5.20 kPa @ 20 °C (68 F)
FLASH POINT (°C)	- 48 (-54.4 F) CC (Closed cup).
AUTO IGNITION TEMPERATURE (°C)	309 (588.2 F)
FLAMMABILITY LIMIT - LOWER(%)	1.4
FLAMMABILITY LIMIT - UPPER(%)	8.0

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition. Avoid contact with acids and alkalis.

11 TOXICOLOGICAL INFORMATION

INHALATION

May cause irritation to the respiratory system. Vapours may cause headache, fatigue, dizziness and nausea. High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

SKIN CONTACT

Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin. Prolonged or repeated exposure may cause severe irritation.

EYE CONTACT

Irritating to eyes.

OTHER HEALTH EFFECTS

This substance has no evidence of carcinogenic properties.

ROUTE OF ENTRY

Inhalation.

Name	PENTANE
Toxic Dose 1 - LD 50	>2000 mg/kg (oral rat)
Toxic Dose 2 - LD 50	446 mg/kg (ivn-mouse)
Toxic Conc. - LC 50	364,000 mg/m ³ /30h (inh-rat)
Name	PROPAN-2-OL

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

Name	PROPAN-2-OL
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13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Empty containers must not be burned because of explosion hazard. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	AEROSOLS (PENTANE)
PROPER SHIPPING NAME	CONSUMER COMMODITY
UN NO. ROAD	1950
ADR CLASS NO.	2

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ADR CLASS	Class 2: Gases
ADR PACK GROUP	N/A
ADR LABEL NO.	2.1
UN NO. SEA	1950
IMDG CLASS	2.1
IMDG PACK GR.	N/A
EMS	F-D, S-U
UN NO. AIR	1950
AIR CLASS	2.1
AIR PACK GR.	N/A

15 REGULATORY INFORMATION

LABELLING



Extremely Flammable



Dangerous for the environment

RISK PHRASES

R12	Extremely flammable.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

A1	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
A2	Do not spray on a naked flame or any incandescent material.
S2	Keep out of the reach of children.
S16	Keep away from sources of ignition - No smoking.
S37	Wear suitable gloves.
S51	Use only in well-ventilated areas.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

STATUTORY INSTRUMENTS

Control of Substances Hazardous to Health.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

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16 OTHER INFORMATION

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE NOVEMBER 2010

REV. NO./REPL. SDS 3

GENERATED

SDS NO. 11416

RISK PHRASES IN FULL

R12	Extremely flammable.
R65	Harmful: may cause lung damage if swallowed.
R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R67	Vapours may cause drowsiness and dizziness.

DISCLAIMER

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.