



Lube-Dri™

PTFE BASED DRY LUBRICANT/RELEASE AGENT

DESCRIPTION

Lube-Dri™ is an extremely fine dispersion of fluorotelomer with outstanding film forming properties providing a clean, odourless, quick-drying, non-staining, oil-free microscopic film more slippery than oil, graphite or silicone. **Lube-Dri™** adheres well to surfaces such as rubber, metal, wood, glass, paper, plastic, elastomers and fibre and is effective under extreme pressures and temperatures ranging from -100 F to +500 F.

APPLICATION

Lube-Dri™ is widely used wherever machinery or smooth surfaces need a non-staining, non-toxic lubrication film which is not affected by solvents, water or oils. Excellent for use on hinges, rollers, dies, fittings, production machinery, rolling stock, conveyors, cutters, binders, punch presses, chain drives, pulleys, drawers, locks, sliding glass doors, sawblades and surfaces in print shops to alleviate paper friction. It is also ideal in the garment, textile and woodworking

industries on cutting tables and equipment to eliminate material drag and for any other textile or woodworking operations where a long lasting, dry, non-staining lubricant is desirable. Effective for the reduction of low speed friction. Because **Lube-Dri™** is chemically inert and resists combining or reacting with other materials, it makes an outstanding general release agent, especially for plastic molds (parts can be painted without cleaning).

SPECIAL FEATURES

Highly Effective - contains modern PTFE which out-performs graphite and silicone leaving a stronger protective lubricating film. Excellent performance under a wide range of temperatures. Retains its lubricating properties from -100 F to +500 F.

Non-Staining - provides a clean, non-oily, quick drying, chemically inert friction reducing film with excellent release properties.

Dust and Dirt Retardant - pure PTFE powder will not attract dirt or dust that keeps equipment from running at peak performance.

Versatile - can be used on rubber, metal, wood, glass,, paper, plastic, elastomers and fibre.

Safe - non-toxic, non-staining and contains no chlorinated solvents. Will not discolour or damage fabrics, paints or other finishes.

USE DIRECTIONS

Shake vigorously before using. Spray a thin, wet uniform coating on a clean, dry surface from a distance of 13 to 25 cm (5 to 10 inches). Spray should wet the surface for effective bonding. Allow to dry momentarily. Repeat as necessary.

Caution: Do not overspray - dries quickly.

NOTE: Solvent carrier may soften some plastics. Test prior to use on any suspect surface materials.

Lube-Dri™ can be removed with **EcoSol™** or a mild abrasive.

Note: Avoid contamination of food or food contact surfaces when using this product. Do not store in food processing -areas.



PHYSICAL PROPERTIES - AEROSOL

Lube-Dri™ consists of pure PTFE powder fluorotelomer and penetrating solvents.

Type	Dry Lubricant
Appearance	White Opaque Dispersion
Odour	Virtually None
Viscosity	Slightly Viscous
Flammability	Flammable
Specific Gravity (liquid)	0.72-0.78
Toxicity (concentrate)	Low; Eye and Skin Irritant

Avoid Direct Inhalation, Do Not Ingest

FOR USE IN INDUSTRIAL, INSTITUTIONAL, COMMERCIAL, MARINE and FOOD PROCESSING ENVIRONMENTS

PACKAGING Aerosol case = 12 x 284g cans

DMY200114

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PRODUCT: LUBE-DRI



Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER MAXIM TECHNOLOGIES INC.
 1607 Derwent Way, DELTA
 B.C.
 CANADA
 V3M 6K8
 CANUTEC EMERGENCY #:1-613-996-6666(24HR)
 LUBE-DRI
 PRODUCT NAME.....
 CHEMICAL FAMILY..... HYDROCARBONS.
 MOLECULAR WEIGHT..... NOT APPLICABLE.
 CHEMICAL FORMULA..... MIXTURE.
 TRADE NAMES & SYNONYMS..... LUBE-DRI
 PRODUCT USES..... LUBRICANT/COATING.

Section 02: COMPOSITION/INFORMATION INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route,Species	LC/50 Route,Species
ACETONE	15-40	750 ppm	67-64-1	>9750 mg/kg ORAL - RAT	>16,000 ppm (4 hr) INHAL - RAT
HEPTANE	10-30	400 ppm	142-82-5	>15000 mg/kg ORAL-RAT	NOT AVAILABLE
VM&P NAPHTHA	7-13	300 ppm	64742-89-8	NOT AVAILABLE	3400 ppm (4 hr) INHAL - RAT
ISOPROPANOL	5-10	400 ppm	67-63-0	>4720 mg/kg ORAL - RAT	12000 ppm (8hr) INHAL - RAT
PTFE DISPERSION	1-5	N.A.	9002-84-0	NOT AVAILABLE	NOT AVAILABLE
PROPANE	10-30	1000 ppm	74-98-6	>5000 mg/kg DERMAL-RABBITS	NOT AVAILABLE
ISOBUTANE	10-30	1000 ppm	75-28-5	NOT APPLICABLE	142,500 ppm (4h) INHAL - RAT

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
 INGESTION..... MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS.
 INHALATION..... INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXIANT.
 EYE CONTACT..... MAY CAUSE IRRITATION.
 SKIN ABSORPTION..... NO DATA AVAILABLE FOR THIS PRODUCT MIXTURE.
 SKIN CONTACT..... MAY CAUSE IRRITATION.
 EFFECTS OF ACUTE EXPOSURE..... DIZZINESS, NAUSEA. IRRITATION TO SKIN & EYES.
 EFFECTS OF CHRONIC EXPOSURE..... SOLVENTS MAY CAUSE DEFATTING DERMATITIS
 EXPOSURE LIMIT OF MATERIAL..... SEE SECTION 2.

Section 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURE IN CASE OF EYE CONTACT, FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION. FOR SKIN, WASH THOROUGHLY WITH SOAP AND WATER. IF AFFECTED BY INHALATION OF VAPOUR OR SPRAY MIST, REMOVE TO FRESH AIR. IF SWALLOWED; DO NOT INDUCE VOMITING, GET MEDICAL ATTENTION.

Section 05: FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE (°C)..... 225-465.
 SPECIAL PROCEDURES..... WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARTATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.
 FLAMMABILITY..... EXTREMELY FLAMMABLE.
 IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
 EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.
 UPPER FLAMMABLE LIMIT..... 12.8.
 (% BY VOLUME)
 LOWER FLAMMABLE LIMIT..... 1.1.
 (% BY VOLUME)
 FLASH POINT (C), TAG CLOSED CUP..... LOWEST KNOWN VALUE IS ACETONE @ -18C.
 EXPLOSION DATA
 SENSITIVITY TO STATIC DISCHARGE..... NOT APPLICABLE.

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Section 05: FIRE FIGHTING MEASURES

SENSITIVITY TO IMPACT..... NOT APPLICABLE.
 HAZARDOUS COMBUSTION PRODUCTS..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
 AEROSOL FLAME PROJECTION CLASSIFIED AS:..... >15cm BUT <100cm.
 FLASHBACK..... YES.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.

Section 07: HANDLING AND STORAGE

STORAGE NEEDS..... KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.
 ENGINEERING CONTROLS..... VENTILATION - LOCAL (MECHANICAL IF USED INDOORS ON A CONTINUOUS BASIS).
 HANDLING PROCEDURES AND EQUIPMENT..... STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50 DEG C.
 SYNERGISTIC MATERIALS..... NONE KNOWN.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/ TYPE..... WEAR CHEMICAL RESISTANT GLOVES.
 RESPIRATORY/TYPE..... IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.
 EYE/TYPE..... SAFETY GLASSES.
 FOOTWEAR/TYPE..... NOT NORMALLY REQUIRED.
 OTHER/TYPE..... NOT REQUIRED.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... AEROSOL.
 APPEARANCE..... WHITE CLOUDY.
 ODOR..... HYDROCARBON.
 ODOR THRESHOLD..... NOT AVAILABLE.
 VAPOUR PRESSURE(PSIG)-AEROSOL..... 50-60.
 @ 20 C
 BOILING POINT (°C)(CONC)..... 57-83.
 EVAPORATION RATE..... GREATER THAN 1.
 n-BUTYL ACETATE = 1
 VAPOUR DENSITY (AIR=1)..... GREATER THAN 1.
 SOLUBILITY IN WATER g/L (20°C)..... NOT AVAILABLE.
 pH..... NOT APPLICABLE.
 SPECIFIC GRAVITY (LIQUID)..... 0.72-0.78.
 COEFFICIENT OF WATER/OIL DIST..... NOT AVAILABLE.
 FREEZING POINT: (°C)..... NOT AVAILABLE.
 AEROSOL PERCENT VOLATILE..... >95.
 (BY WEIGHT).
 SPECIFIC GRAVITY (AEROSOL)..... 0.65-0.69.

Section 10: STABILITY AND REACTIVITY

HAZARDOUS PRODUCTS OF DECOMPOSITION..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
 CHEMICAL STABILITY:
 YES..... UNDER NORMAL CONDITIONS.
 NO, WHICH CONDITIONS?..... NOT APPLICABLE.
 COMPATIBILITY WITH OTHER SUBSTANCES:
 NO, WHICH ONES?..... STRONG OXIDIZING AGENTS.
 REACTIVITY CONDITIONS?..... NOT APPLICABLE.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

REPRODUCTIVE EFFECTS..... BENZENE - CAUSES FOETOTOXICITY IN ANIMALS AT DOSES WHICH ARE MATERNALLY TOXIC. DOES NOT IMPAIR FERTILITY.
 IRRITANCY OF MATERIAL..... SKIN/EYE IRRITANT.
 SENSITIZING CAPABILITY OF MATERIAL..... UNKNOWN.
 CARCINOGENICITY OF MATERIAL..... HEPTANE CONTAINS TRACE AMOUNT OF BENZENE - CARCINOGENIC RISKS TO HUMANS BASED ON THE EVALUATION OF IARC WORKING GROUP.
 TERATOGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE TERATOGENIC EFFECTS ARE ANTICIPATED.
 MUTAGENICITY..... BENZENE - MAY CAUSE HERITABLE GENETIC DAMAGE.

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Section 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL..... NOT AVAILABLE.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

Section 14: TRANSPORTATION INFORMATION

T.D.G. CLASSIFICATION..... CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.1).
D.O.T. CLASSIFICATION..... CONSUMER COMMODITY, ORM-D.

Section 15: REGULATORY INFORMATION

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION..... A,B5,D2B.
CNFC SECTION 3.3.5..... LEVEL 3.
CEPA (Canadian Environmental Protection Act) ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

U.S. REGULATIONS:

HMIS RATING HEALTH..... 2 MODERATE HAZARD.
HMIS RATING FLAMMABILITY..... 4 SEVERE HAZARD.
HMIS RATING REACTIVITY..... 0 MINIMAL HAZARD.
HMIS RATING PERSONAL PROTECTION..... B.
NFPA CODE 30B..... LEVEL 3.
SARA 313 INFORMATION:..... THIS PRODUCT CONTAINS NO INGREDIENTS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND OF 40 CFR 372.
CAS #: CHEMICAL NAME:
N/A.
CALIFORNIA PROPOSITION 65:..... THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986:
WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.
CAS #: CHEMICAL NAME:
*71-43-2 BENZENE (TRACE AMOUNT IN HEPTANE)
TSCA (Toxic Substances Control Act)..... ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.
VOC (w/w%)..... 60.

Section 16: OTHER INFORMATION

NOTICE FROM MAXIM TECHNOLOGIES INC..... THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET IS PROVIDED BY MAXIM TECHNOLOGIES INC. FREE OF CHARGE. WHILE BELIEVED TO BE RELIABLE, IT IS INTENDED FOR USE BY SKILLED PERSONS AT THEIR OWN RISK. MAXIM TECHNOLOGIES INC. ASSUMES NO RESPONSIBILITY FOR EVENTS RESULTING OR DAMAGES INCURRED FROM ITS USE. THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.
PREPARED BY..... MAXIM TECHNOLOGIES INC.
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