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MATERIAL SAFETY DATA SHEET

SECTION 1 - IDENTIFICATION

Product identifier MASTERS LEAK DETECTOR

Product Code(s) LD059; LD20L; LD227; LD4L; LD500

Product Use : Leak Detector
Chemical Family : Mixture.

Supplier's name and address:

Manufacturer's name and address:

G.F. Thompson Company Ltd.

620 Steven Court Newmarket, ON, Canada

L3Y 6Z2

Information Telephone # : (905) 898-2557 (Monday to Friday, 7:30 am - 5:00 pm, Eastern Standard Time)

24 Hr. Emergency Tel # : (905) 252-6219 or (416) 786-4336

SECTION 2 - HAZARDS IDENTIFICATION

Classification ; WHMIS information: This product is a WHMIS Controlled Product. It meets one or more of

the criteria for a controlled product provided in Part IV of the Canadian Controlled Products

Refer to Supplier

Regulations (CPR). WHMIS classification:

Class D2B (Materials Causing Other Toxic Effects, Toxic Material)

OSHA: This material is classified as hazardous under OSHA regulations (29CFR

1910.1200). Hazardous classification:

Acute Health Hazard

Emergency Overview Clear liquid. Odorless.

May cause moderate to severe eye irritation. May cause mild to moderate skin irritation.

May cause respiratory irritation.

POTENTIAL HEALTH EFFECTS:

Signs and symptoms of short-term (acute) exposure

Inhalation: Inhalation of vapours can cause nasal and respiratory irritation.

Skin : May cause mild to moderate skin irritation.Eyes : May cause moderate to severe irritation.

Ingestion: Ingestion may irritate digestive tract and cause nausea, vomiting and diarrhea.

Effects of long-term (chronic) exposure

: Prolonged skin contact may cause skin irritation. Excessive ingestion of this product may

cause kidney effects.

Carcinogenic status
 See TOXICOLOGICAL INFORMATION, Section 11.
 Additional health hazards
 See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects

: See ECOLOGICAL INFORMATION, Section 12.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	Wt.%
Propylene glycol	57-55-6	
Dipotassium phosphate	7758-11-4	40.00 - 60.00 1.00 - 3.00
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	0.10 - 1.00

SECTION 4 - FIRST AID MEASURES

Inhalation : If inhaled, move to fresh air. If breathing is irregular or stopped, administer artificial

respiration. If breathing is difficult, give oxygen by qualified medical personnel only. Get

medical attention if irritation develops and persists.

Skin contact : Wash off immediately with plenty of water. Remove and wash contaminated clothing before

re-use. If irritation or symptoms develop, seek medical attention.

Eye contact : Immediately flush eyes with running water for at least 5 to 10 minutes. If irritation persists,

seek prompt medical attention.

Ingestion ; Do NOT induce vomiting. Have victim rinse mouth with water, then give one to two glasses

of water to drink. Never give anything by mouth to an unconscious person. Call a physician.

Notes For Physician : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

: Not flammable under normal conditions of handling. However, may ignite if exposed to

extreme heat and flame.

Flammability classification (OSHA 29 CFR 1910.1200)

: Combustible Liquid Class III B.

Oxidizing properties

: Not known.

Explosion data: Sensitivity to mechanical impact / static discharge

: Not expected to be sensitive to mechanical impact or static discharge.

Suitable extinguishing media : Use media suitable to the surrounding fire such as water fog or fine spray, alcohol foams,

carbon dioxide and dry chemical.

Special fire-fighting procedures/equipment

: Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and

flame.

Hazardous combustion products

Carbon oxides ; Nitrogen oxides and phosphorus oxides .

NFPA Rating

0 - Minimal 1 - Slight 2 - Moderate 3 - Serious

: Health: 2 Flammability: 1 Instability: 0 Special Hazards: None

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions : Restrict access to area until completion of clean-up. Ensure clean-up is conducted by

trained personnel only. Wear suitable protective equipment. Refer to protective measures

listed in sections 7 and 8. Restrict access to area until completion of clean-up.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces.

Spill response/cleanup : Ventilate area of release. Stop spill or leak at source if safely possible. Contain and absorb

spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Notify the appropriate

authorities as required.

Prohibited materials : None known.

Special spill response procedures

If a spill/release in excess of the EPA reportable quantity is made into the environment,

immediately notify the national response center in the United States (phone:

1-800-424-8802).

US CERCLA Reportable quantity (RQ): None reportable.

SECTION 7 - HANDLING AND STORAGE

Safe Handling procedures

Use only in well-ventilated areas. Wear suitable protective equipment during handling. Avoid breathing vapours or mists. Avoid contact with eyes, skin and clothing. Keep away from extreme heat and flame. Keep away from incompatibles. Keep containers closed when not in use. Wash hands thoroughly after handling.

Storage requirements

Store in a cool, dry, well ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and

authorized personnel. Inspect periodically for damage or leaks.

Incompatible materials

Strong oxidizing agents, acids and bases.

Special packaging materials

Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

	ACGI	H TLV_	OSHA	<u>PEL</u>
<u>Ingredients</u>	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	STEL
Propylene glycol	*10 mg/m³	N/Av	N/Av	N/Av
Dipotassium phosphate	N/Av	N/Av	N/Av	N/Av
Alcohols, C11-14-iso-, C13-rich, ethoxylated	N/Av	N/Av	N/Av	N/Av

*Note: The ACGIH TLV listed above for Propylene glycol is an AIHA WEEL.

Ventilation and engineering measures

: Use in a well-ventilated area. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection

: If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR 1910.134) or CSA Z94.4-02.

Skin protection

Boiling point

For prolonged or repeated contact use protective gloves. Advice should be sought from

glove suppliers.

Eye / face protection

Chemical goggles are recommended when there is a potential for splashing.

Other protective equipment

Wear sufficient clothing to prevent skin contact. Depending on conditions of use, an impervious apron should be worn. An eyewash station and safety shower should be made available in the immediate working area.

General hygiene considerations

Avoid breathing vapors or mists. Avoid contact with skin, eyes and clothing. Wash contaminated clothing before reuse. Do not eat, drink, smoke or use cosmetics while working with this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Handle in accordance with good industrial hygiene and safety practice.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state liquid

Odour Odourless: **Appearance** Odour threshold : Clear liquid.

Нα

N/Av N/Av

Melting/Freezing point : N/Av Specific gravity Coefficient of water/oil distribution

: N/Av

: N/Av

Vapour pressure (mmHg @ 20° C / 68° F)

: N/Av

Solubility in water

: N/Av : soluble

Vapour density (Air = 1)

Evaporation rate (n-Butyl acetate = 1)

Volatile organic Compounds (VOC's)

Volatiles (% by weight)

: N/Av : 49%

499.6

N/Av

: N/Av

Flash point Flash point Method N/Av

Lower flammable limit (% by vol.)

Auto-ignition temperature : N/Av Upper flammable limit (% by vol.)

: N/Av

: N/Av

Flame Projection Length

: N/Ap N/Av Flashback observed

: N/Ap

Viscosity

Absolute pressure of container

: N/Ap

SECTION 10: STABILITY AND REACTIVITIY

Stability and reactivity

: Stable under the recommended storage and handling conditions prescribed.

Hazardous polymerization

: Will not occur.

Conditions to avoid

Avoid excessive heat, sparks and open flame. Avoid contact with incompatible materials. Do

not use in areas without adequate ventilation.

Materials To Avoid And Incompatibility

: Strong oxidizing agents, acids and bases.

Hazardous decomposition products
: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Target organs Eyes, skin, respiratory system and digestive system.

Routes of exposure

Inhalation: YES Skin Absorption: NO Skin & Eyes: YES

Ingestion: YES

Toxicological data

There is no available data for the product itself, only for the ingredients. See below for

individual ingredient acute toxicity data.

	LC ₅₀ (4hr)	LD	50
<u>Ingredients</u>	inh, rat	(Oral, rat)	(Rabbit, dermal)
Propylene glycol	N/Av	21800 mg/kg	20800 mg/kg
Dipotassium phosphate	N/Av	N/Av	N/Av
Alcohols, C11-14-iso-, C13-rich, ethoxylated			N/Av

Carcinogenic status

: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects

: Not expected to cause reproductive effects.

Teratogenicity

: Not expected to be a teratogen.

Mutagenicity

: Not expected to be mutagenic in humans.

Epidemiology

: None known or reported by the manufacturer.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Synergistic materials

: None known or reported by the manufacturer.

Irritancy

: Moderate to severe eye irritant. Mild to moderate skin irritant.

other important hazards

Prolonged or repeated skin contact may cause irritation, defatting or dermatitis (rash).

Excessive ingestion of this product may cause kidney effects.

Conditions aggravated by overexposure

: Pre-exisiting skin, respiratory, renal or nervous system disorders.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

See the following tables for individual ingredient ecotoxicity data.

Ecotoxicity data:

le constitue de		Т	oxicity to Fish	
<u>Ingredients</u>	CAS No	LC50 / 96h	NOEC / 21 day	M Factor
Propylene glycol	57-55-6	> 18,000 mg/L	N/Av	N/Ap
Dipotassium phosphate	7758-11-4	> 100 mg/L (Japanese rice fish)	N/Av	N/Ap
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	N/Av	N/Av	N/Ap

<u>Ingredients</u>	CAS No	Toxic	city to Daphnia	
		EC50 / 48h	NOEC / 21 day	M Factor
Propylene glycol	57-55-6	> 18,000 mg/L	N/Av	N/Ap
Dipotassium phosphate	7758-11-4	118.9 mg/L (Water flea)	N/Av	N/Ap
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	N/Av	N/Av	N/Ap

<u>Ingredients</u>	CAS No	Tox	cicity to Algae	
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor
Propylene glycol	57-55-6	> 18,000 mg/L/72hr	N/Av	N/Ap
Dipotassium phosphate	7758-11-4	60 mg/L/72hr (Green algae)	N/Av	N/Ap
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	N/Av	N/Av	N/Ap

Mobility

: No data is available on the product itself.

Persistence

: Propylene glycol is considered to be readily biodegradable.

Bioaccumulation potential

: No data is available on the product itself.

Other Adverse Environmental effects

: None known.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal Methods of Disposal

- : Handle waste according to recommendations in Section 7.
- Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules. Contact your local, state or federal environmental agency for specific rules.

RCRA

: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14: TRANPORT INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	None.	Not regulated.	Not regulated	none	\otimes
TDG Additional information	None.				
49CFR/DOT	None.	Not regulated.	Not regulated	none	\otimes
49CFR/DOT Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

lucas di suas		TSCA	CERCLA Reportable	PROTABLE Hazardous		. 313, 40 CFR 372, ic Chemical
<u>Ingredients</u>	CAS#	Inventory	Quantity(RQ) (40 CFR 117.302):	Substance, 40 CFR 355:	Toxic Chemical	de minimus Concentration
Propylene glycol	57-55-6	Yes	N/Ap	N/Av	No	No
Dipotassium phosphate	7758-11-4	Yes	N/Ap	N/Av	No	No
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	Yes	N/Ap	N/Av	No	No

SARA TITLE III: Sec. 311 and 312, MSDS Requirements, 40 CFR 370 Hazard Classes: Acute Health Hazard Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	CAS#	California Proposition 65			State	"Right t	o Know"	Lists	
<u>mgrodions</u>	CAS#	Listed	Type of Toxicity	CA	MA	MN	ИJ	PA	RI
Propylene glycol	57-55-6	No	N/Ap	No	No	Yes	Yes	Yes	Yes
Dipotassium phosphate	7758-11-4	No	N/Ap	No	No	No	No	No	No
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	No	N/Ap	No	No	No	No	No	No

Canadian Information:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and this MSDS contains all the information required by the CPR.

SECTION 16 - OTHER INFORMATION	SECTION	16 - OTHER	INFORMATION
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HMIS Rating

: *- Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious

Health: 2 Flammability: 1 Reactivity: 0

Legend

: ACGIH: American Conference of Governmental Industrial Hygienists

AIHA: American Industrial Hygiene Association

CAS: Chemical Abstract Services

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of

1980

CFR: Code of Federal Regulations CSA: Canadian Standards Association DOT: Department of Transportation EPA: Environmental Protection Agency

HMIS: Hazardous Materials Identification System HSDB: Hazardous Substances Data Bank

IARC: International Agency for Research on Cancer

Inh: Inhalation

LC: Lethal Concentration

LD: Lethal Dose

MSHA: Mine Safety and Health Administration

N/Ap: Not Applicable N/Av: Not Available

NFPA: National Fire Protection Association NOEC: No observable effect concentration NTP: National Toxicology Program

NIOSH: National Institute of Occupational Safety and Health OSHA: Occupational Safety and Health Administration

PEL: Permissible exposure limit

RCRA: Resource Conservation and Recovery Act
RTECS: Registry of Toxic Effects of Chemical Substances
SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit TCC: Tagliabue Closed Cup

TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average

WEEL: Workplace Environmental Exposure Level

WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2013.
 - 2. International Agency for Research on Cancer Monographs, searched 2013.
 - 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2013 (Chempendium, HSDB and RTECs).
 - 4. Material Safety Data Sheets from manufacturer.
 - 5. US EPA Title III List of Lists October 2012 version.
 - 6. California Proposition 65 List April 29, 2013 version.

Prepared for:

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