

Section 1. Chemical Product and Company Identification

Common Name : ROYCO^(R) LGF Synonym : Not available. Code : BMS3-32A TYPE 2 Trade Name : Not available. Material Uses : Lubricant. Manufacturer : Anderol Inc. 215 Merry Lane East Hanover, NJ 07936 Tel: (973) 887-7410 Fax: (973) 887-8422	MSDS# : 720001-03 Validation Date : 03/25/2004 In Case of Emergency : CHEMTREC: 800-424-9300 (United States)
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Section 2. Composition, Information on Ingredients

Name	CAS #	% by Weight	UN Number
Zinc dialkyldithiophosphate	69993-19-7	1-3	Not applicable.

This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada, the NOM-018-STPS-2000 in Mexico and Brazil NBR 14725:2001.

See Section 8 for Exposure Limits.
 See Section 11 for Toxicological Data.

Section 3. Hazards Identification

Physical State and Appearance : Liquid. (Oily liquid.)

Emergency Overview : CAUTION!
 MAY CAUSE EYE IRRITATION.
 Avoid contact with eyes. Wash thoroughly after handling.

Routes of Entry : Eye contact. Ingestion.

Potential Acute Health Effects

Eyes : Hazardous in case of eye contact (irritant).
Skin : Slightly hazardous in case of skin contact (irritant). Non-sensitizer for skin.
Inhalation : Not available.
Ingestion : Not available.

Potential Chronic Health Effects : Carcinogenic Effects: Not applicable.
 Mutagenic Effects: Not available.
 Teratogenic Effects: Not available.

Medical Conditions Aggravated by Overexposure : Repeated or prolonged exposure is not known to aggravate medical condition.

Over-exposure signs/symptoms : Not available.

[See Toxicological Information \(Section 11\)](#)

Section 4. First Aid Measures

Eye Contact : Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

Skin Contact : In case of contact, immediately flush skin with plenty of water. Get medical attention.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Have conscious person drink several glasses of water or milk.
- Notes to Physician** : Not available.

Section 5. Fire Fighting Measures

- Flammability of the Product** : May be combustible at high temperature.
- Auto-ignition Temperature** : Not available.
- Flash Points** : Open cup: 111.11°C (232°F) (Cleveland.).
- Flammable Limits** : Not available.
- Products of Combustion** : These products are carbon oxides (CO, CO₂). Thermal decomposition products are dependent on temperature conditions.
- Fire Hazards in Presence of Various Substances** : Not available.
- Explosion Hazards in Presence of Various Substances** : Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.
- Fire Fighting Media and Instructions** : SMALL FIRE: Use dry chemical powder.
LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
- Protective Clothing (Fire)** : Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use a MSHA/NIOSH approved respirator or equivalent.
- Special Remarks on Fire Hazards** : Container explosion may occur under fire conditions or when heated. Cool closed containers exposed to fire with water.

Section 6. Accidental Release Measures

- Small Spill and Leak** : Absorb with an inert material and put the spilled material in an appropriate waste disposal.
- Large Spill and Leak** : Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not allow any potentially contaminated water including rain water, runoff from fire fighting or spills to enter any waterway, sewer or drain. Note: See section 8 for personal protective equipment and section 13 for waste disposal.

Section 7. Handling and Storage

- Handling** : Avoid breathing vapors or spray mists. After handling, always wash hands thoroughly with soap and water. Avoid contact with eyes, skin and clothing. Use with adequate ventilation.
- Storage** : Keep container tightly closed. Store in a dry, cool and well-ventilated area.

Section 8. Exposure Controls, Personal Protection

- Engineering Controls** : Good general ventilation should be sufficient to control airborne levels. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection

Eyes : Safety glasses.

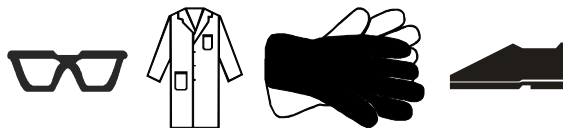
Body : Lab coat.

Respiratory : A respirator is not needed under normal and intended conditions of product use.

Hands : Chemical resistant gloves.

Feet : Shoes.

Protective Clothing (Pictograms)



- Personal Protection in Case of a Large Spill** : Splash goggles. Full suit. Vapor respirator. Boots. Chemical resistant gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product.

Exposure Limits

Zinc dialkyldithiophosphate

Not available.

[Consult local authorities for acceptable exposure limits.](#)

Section 9. Physical and Chemical Properties

Physical State and appearance	: Liquid. (Oily liquid.)
Color	: Amber.
Odor	: Hydrocarbon. (Slight.)
Molecular Weight	: Not applicable.
Molecular Formula	: Not applicable.
pH (1% Soln/Water)	: Not available.
Boiling/Condensation Point	: Not available.
Pourpoint	: Not available.
Specific Gravity	: 0.87 (Water = 1)
Vapor Pressure	: Not available.
Vapor Density	: Not available.
Volatility	: Not available.
Odor Threshold	: Not available.
Evaporation Rate	: Not available.
VOC	: Not available.
Viscosity	: Not available.
LogK _{ow}	: Not available.
Solubility	: Very slightly soluble in cold water, hot water.

Section 10. Stability and Reactivity

Stability and Reactivity	: The product is stable.
Conditions of Instability	: Not available.
Incompatibility with Various Substances	: Reactive with oxidizing agents.
Hazardous Decomposition Products	: Not available.
Hazardous Polymerization	: Will not occur.

Section 11. Toxicological Information

Toxicity Data

<u>Ingredient Name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
Chronic Effects on Humans	: Not available.			
Other Toxic Effects on Humans	: Hazardous in case of eye contact (irritant). Slightly hazardous in case of skin contact (irritant). Non-sensitizer for skin.			
Special Remarks on Toxicity to Animals	: Not available.			
Special Remarks on Other Toxic Effects on Humans	: Not available.			

Section 12. Ecological Information

Ecotoxicity Data

<u>Ingredient Name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
BOD and COD	: Not available.		
Biodegradable/OECD	: Not available.		
Mobility	: Not available.		
Products of Degradation	: Not available.		
Toxicity of the Products of Biodegradation	: The product itself and its products of degradation are not toxic.		

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Special Remarks on the Products of Biodegradation : Not available.

Section 13. Disposal Considerations

Waste Information : Waste must be disposed of in accordance with federal, state and local environmental control regulations. Incinerate waste materials.

Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN Number	Proper Shipping Name	Class	Packing Group	Label	Additional Information
United States (DOT)	Not regulated.	-	-	-		-
Canada (TDG)	Not regulated.	-	-	-		-
Mexico (NOM-004-SCT2-1994)	Not regulated.	-	-	-		-
Brazil	Not regulated.	-	-	-		-
IMDG Code	Not regulated.	-	-	-		-
IATA-DGR Class	Not regulated.	-	-	-		-

NAERG : Not applicable.

Section 15. Regulatory Information

HCS Classification : Irritating material

U.S. Federal Regulations : TSCA 8(b) inventory: All components listed.
Clean Water Act (CWA) 307: No products were found.
Clean Water Act (CWA) 311: No products were found.
Clean air act (CAA) 112 accidental release prevention: No products were found.
Clean air act (CAA) 112 regulated flammable substances: No products were found.
Clean air act (CAA) 112 regulated toxic substances: No products were found.
SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: No products were found.
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

SARA 313

Ingredient Name

% by Weight

Form R - Reporting Requirements

: No products were found.

Supplier Notification

: No products were found.

State Regulations

: Massachusetts RTK: 9-Octadecenoic acid (z) methyl ester
California prop. 65: No products were found.

WHMIS (Canada)

: D-2B: Material causing other toxic effects (TOXIC).

CEPA DSL: All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA, the Mexican NOM -018-STPS-2000 and the Brazilian NBR 14725:2001. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1, NOM -018-STPS-2000 and NBR 14725:2001.

Hazardous Ingredients Classification of the Degree of Risk (Mexico)

Ingredient Name

Zinc dialkyldithiophosphate

Health

2

Flammability

0

Reactivity

0

Other

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International Lists

: All components are listed on major international inventories or exempted from being listed in Australia (AICS), Europe (EINECS/ELINCS), Korea (TCCL), Japan (METI/MOL), Philippines (RA6969).

Section 16. Other Information

Label Requirements

: MAY CAUSE EYE IRRITATION.

**Hazardous Material
Information System
(U.S.A.)**

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	B

**National Fire
Protection
Association
(U.S.A.)**
**References**

: -Manufacturer's Material Safety Data Sheet. -Material safety data sheet issued by: la Commission de la Santé et de la Sécurité du Travail du Québec. -Canada Gazette Part II, Vol. 122, No. 2 Registration SOR/88-64 31 December, 1987 Hazardous Products Act "Ingredient Disclosure List". -Provisional Domestic Substances List, Canadian Environmental Protection Act, Volume 1-Registry Number Index, April 1990; Environment Canada. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994. -"Regulations respecting the handling, offering for transport and transporting of dangerous goods." Extract from the Canada Gazette Part II, dated February 6, 1985. Registration SOR/85-77 18 January, 1985. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG.

Other Special

: Not available.

Considerations**Responsible Name**

: **Mr. Max Naggar**

Date of Issue

: 03/25/2004

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: 09/01/2003

Version

: 2.1

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.