

1. COMPANY IDENTIFICATION

Microlon, Inc 2520 Longview St., Suite 313 Austin, TX 78705 MSDS Requests: (800) 962-4152	24 hr Emergency: Chemtrec (800) 424-9300
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2. COMPOSITION/INFORMATION ON INGREDIENTS

100% MICROLON COMPOUND 90

Components	Amount	Limit/Qty	Agency/Type
LUBRICATING BASE OIL: Severly Refined Petroleum Distillate			
	> 80%	5 mg/m ³	ACGIH TWA
		10 mg/m ³	ACGIH STEL
		5 mg/m ³	OSHA PEL

The BASE OIL may be a mixtue of any of the following: CAS 64741884, CAS 64741895, CAS 64741964, CAS 64741975, CAS 64742014, CAS 64742525, CAS 64742536, CAS 64742547, CAS 64742627, CAS 64742650 or CAS 72623837.

ADDITIVES	<20%		
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INCLUDING THE FOLLOWING:

ZINC ALKYL DITHIOPHOSPATE

Chemical Name: PHOSPHORODITHIOIC ACID, 0,0-DI-CI-14-ALKYL ESTERS, ZINC SALT

CAS 68649423			
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COMPOSITION COMMENT:

All th ecomponents of this material are on the Toxic Substances Control Act Chemical Substance Inventory. This product fits the ACGIH definition fo rmineral oil mist.

The ACGIH TLV is 5 mg/m³, the OSHA PEL is 5 mg/m³.

TLV - Threshold Limit Value	TWA - Time Weighted Average
STEL - Short Term Exposure Limit	TPQ - Threshold Planning Quantity
RQ - Reportable Quantity	PEL - Permissible Exposure Limit
C - Ceiling Limit	CAS - Chemical Abstract Service Number
A1-5 - Appendix A Categories	() - Change Has Been Proposed

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYE: This substance is not expected to cause prolonged or significant eye irritation.

SKIN: This substance is not expected to cause prolonged or significant skin irritation. The systemic toxicity of this substance has not been determined. However, it should be practically non toxic to internal organs if it gets on the skin. The hazard evaluation is based on data from similar materials.

INGESTION: The systemic toxicity of this substance has not been determined. However, it should be practically non toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

INHALATION: The systemic toxicity of this substance has not been determined. However, it should be practically non toxic to internal organs if inhaled. This hazard evaluation is based on data from similar materials.

4. FIRST AID MEASURES

EYE: No first aid procedures are required. However, as a precaution, flush eyes with fresh water for 15 minutes. Remove contact lenses if worn.

SKIN: No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

INHALATION: Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT (COC): 392°F (195° C) Min

AUTOIGNITION: NDA

FLAMMABILITY LIMITS: (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam, Water Fog

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0.

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or The National Paint and Coating Association (for HMIS ratings).

FIRE FIGHTING INSTRUCTIONS: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

COMBUSTION PRODUCTS: Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen and phosphorous. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills using appropriate techniques such as absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

CAUTION - DO NOT use pressure to empty drum or drum may rupture with explosive force. **DO NOT** weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: No special eye protection is usually necessary.

SKIN PROTECTION: No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION: No special respiratory protection is normally required. However, if operating conditions create high airborne concentrations, the use of an approved respirator is recommended.

ENGINEERING CONTROLS: Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:	Red Liquid
pH	NDA
VAPOR PRESSURE:	NA
VAPOR DENSITY (AIR= 1)	NA
BOILING POINT:	NA
FREEZING POINT:	NDA
MELTING POINT:	NDA
SOLUBILITY:	Soluble in hydrocarbon solvents; insoluble in water.
SPECIFIC GRAVITY:	0.89 @ 15.6/15.6
DENSITY:	NDA
EVAPORATION RATE:	NA
PERCENT VOLATILE (VOL.):	NA
VISCOSITY	45cSt @ 40°C (Min.)

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: NDA

CHEMICAL STABILITY: Stable

CONDITION TO AVOID: NDA

INCOMPATIBILITY WITH OTHER MATERIALS: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION: Polymerization will not occur.

11 TOXICOLOGICAL INFORMATION

EYE EFFECTS: No product toxicology data available. The hazard evaluation was based on data from similar materials.

SKIN EFFECTS: No product toxicology data available. The hazard evaluation was based on data from similar materials.

ACUTE ORAL EFFECTS: No product toxicology data available. The hazard evaluation was based on data from similar materials.

ACUTE INHALATION EFFECTS: No product toxicology data available. The hazard evaluation was based on data from similar materials.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains zinc alkyl dithiophosphates (ZDDPs). Several ZDDPs have been reported to have weak mutagenic activity in cultured mammalian cells but only at concentrations that were toxic to the test cells. We do not believe that there is any mutagenic risk to workers exposed to ZDDPs.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

During use in engines, contamination of oil with low levels of cancer causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

12. ECOLOGICAL INFORMATION

ECOTOXICITY: NDA

ENVIRONMENTAL FATE: This material is not expected to present any environmental problems other than those associated with oil spills.

13. DISPOSAL CONSIDERATIONS

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations.

Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode specific or quantity specific shipping requirements.

DOT SHIPPING NAME:	NOT DESIGNATED AS A HAZARDOUS MATERIAL BY THE FEDERAL DOT
DOT HAZARD CLASS:	NOT APPLICABLE
DOT IDENTIFICATION NUMBER:	NOT APPLICABLE
DOT PACKING GROUP:	NOT APPLICABLE

15. REGULATORY INFORMATION

SARA 311 CATEGORIES	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

01 = SARA 313	11 = NJ RTK	21 = TSCA Sect 4(e)
02 = MASS RTK	12 = CERCLA 302.4	22 = TSCA Section 5(a) (e) (f)
03 = NTP Carcinogen	13 = MN RTK	23 = TSCA Sect 6
04 = CA Prop 65-Carcin	14 = ACGIH TWA	24 = TSCA Sect 12(b)
05 = CA Prop 65-Repro Tox	15 = ACGIH STEL	25 = TSCA Sect 8(a)
06 = IARC Group 1	16 = ACGIH Calc TLV	26 = TSCA Sect 8(d)
07 = IARC Group 2A	17 = OSHA PEL	
08 = IARC Group 2A	18 = DOT Marine Pollutant	28 = CANADIAN WHMIS
09 = SARA 302/304	19 = Chevron TWA	29 = OSHA CEILING
10 = PA RTK	20 = EPA Carcinogen	30 = Chevron STEL

The following components of this material are found on the regulatory lists indicated.

PHOSPHORODITHIOIC ACID, 0,0-DI-CI-14-ALKYL ESTERS, ZINC SALTS is found on lists: 01, 11

SEVERELY REFINED PETROLEUM DISTILLATE is found on lists: 14, 15, 17.

16. OTHER INFORMATION

REVISION STATEMENT: This Material Safety Data Sheet has been revised to comply with the ANSI Z400.1 Standard. Changes have also been made throughout this Material Safety Data Sheet. Please read the entire document.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.