



SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: NNL 690

Product use: Used as a 1%, 3%, or 5% additive to conventional lubricants.

Manufacturer: WYS Manufacturing Ltd.
Bay 7 & 8, 4216 – 54th Ave. SE
Calgary, Alberta T2C 2E3
Phone 1-403-252-2239
Canada

Supplier: Maryn International Ltd.
Bay 5 & 6, 4216 – 54th Ave. SE
Calgary, Alberta T2C 2E3
Phone 1-403-252-2239
Canada

Emergency Phone Number: CANUTEC – 24 hr Emergency No. 1-613-996-6666
Business Hour Number 1-403-252-2239
(Monday through Friday 8:00am to 4:30pm MST)

MSDS Prepared By Z. Ansarizadeh
Phone 1-403-252-2239

Date Prepared August 14, 2008

SECTION II: COMPOSITION/ INFORMATION ON INGREDIENTS

Hazardous Ingredients	Concentration %	C.A.S. #	LD ₅₀ (Species/Route)	LC ₅₀ (Species/Route)
Diocetyl Phthalate	3-7%	117-81-7	>30000 mg/kg (Rat/Oral) >24500 mg/kg (Rabbit/Dermal)	NA
Acrylic Copolymer	0.5-1.5%	Trade Secret	NA	NA
Isopropylated Triphenyl Phosphate	0.1-1%	68937-41-7	NA	NA
Polyolester	0.1-1%	68424-32-8	NA	NA

NA: Not Available



SECTION III: Hazards Identification

Emergency Overview	Causes eye irritation. May cause skin, respiratory tract, and mucous membrane irritation. May cause nervous system effects.
Route of entry	Skin and eye contact, inhalation, and ingestion are the primary routes of exposure to this product.
Ingestion	May cause gastrointestinal irritation. Ingestion of large amounts may cause intestinal blockage. If drawn into lungs from swallowing or vomiting, may cause bronchopneumonia or pulmonary edema. Repeated ingestion of large doses may damage the liver, as shown in animal studies.
Inhalation	Causes irritation of the respiratory tract and mucous membrane. If product is misted at elevated temperature, high concentration of vapour and/or mist may cause irritation, experienced as nasal discomfort and discharge.
Skin Contact and absorption	Frequent or prolonged contact may irritate the skin and cause a skin rash.
Eye Contact	Irritating to the eyes but will not cause injury to the eye tissue.
Effects of Chronic Exposure	Repeated exposure over prolonged periods of time may cause irritation to the skin, respiratory system and eyes. It may also cause liver, adrenal, thymus, reproductive, mutagenic and neurological effects. Follow good industrial hygiene practices to avoid exposure.
Effects of Acute Exposure	Product is irritating to the respiratory tract and eyes. Breathing mist caused by high temperature or swallowing large quantities may be irritating to skin, respiratory system, mucous membranes and eyes.

SECTION IV: First Aid Measures

Ingestion	Do not induce vomiting. If victim is conscious and alert, give 2-4 cups of water. Never give anything by mouth to an unconscious person. Call physician immediately.
Skin Contact	Remove contaminated clothing. Wash well with soap and water for at least 15 minutes. Launder clothes prior to re-use.
Inhalation	If excessive fumes, remove victim to fresh air. If not breathing, qualified personnel may provide artificial respiration. If no relief is obtained, consult physician.
Eye Contact	Flush with clean tepid water for 15 minutes keeping eyelids open. If irritation persists, consult physician.
Notes to Physician	Treat symptomatically.

SECTION V: Fire-Fighting Measures

Flammability	Non flammable at ambient temperature. Liquid may burn at temperatures above flash point if exposed to an open flame.
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Means of Extinction	Carbon dioxide foam, dry chemicals. Keep containers cool with water spray. When fighting fire, treat as petroleum product, wear full protective clothing, including NIOSH approved self-contained breathing apparatus. Avoid spreading with water flooding.
Flash Point (ASTM D92)	190°C (374°F)
Upper Flammability Limits	Not Determined.
Lower Flammability Limits	Not Determined.
Auto Ignition Temperature	Not Determined.
Hazardous Combustion Products	Oxides of carbon, sulphur, calcium, phosphorous, nitrogen, zinc, chlorine, hydrogen chloride, hydrogen sulphide and dense smoke
Fire and Explosion Hazards	None
Sensitivity to impact	None at normal temperatures below flash point. Do not cut, weld, or pressurize empty container.
Static Discharge	Container may explode in heat of fire.

SECTION VI: Accidental Release Measures

Personal Protection	Wear suitable protective equipment. Eliminate sources and or potential sources of ignition.
Environmental Precautions	Product has very low solubility in water. Do not flush to sewers, streams or other bodies of water. For disposal, see Section XIII.
Methods for cleaning up	Absorb on inert material such as sand, earth, vermiculite. Sweep up and collect in a suitable container for disposal. Observe government regulations.
Large spills	Stop leak if without risk. Dike to contain spill. Pump excess material into suitable container (metal drums, metal tanks, or such).

SECTION VII: Handling and Storage

Handling	Avoid excess heat, formation of oil mist, breathing vapours and mist from hot oil, and prolonged or repeated contact with skin
Storage	Store in a cool well ventilated area. Keep away from heat spark and open flame.

SECTION VIII: Exposure Controls / Personal Protection

Exposure Limits

If used in a way that generates a mist, observe the limits for mineral oil mist



Component	Exposure Limit (ACGIH)	Exposure Limit (OSHA)	Immediately Dangerous to Life or Health (IDLH)
Mineral Oil Mist	5 mg/m ³ TWA-TLV 10 mg/m ³ STEL-TLV	5 mg/m ³ TWA-PEL Not Established STEL-PEL	2500 mg/m ³
Dioctyl Phthalate	5 mg/m ³ TWA-TLV Not Established STEL-TLV	5 mg/m ³ TWA-PEL Not Established STEL-PEL	5000 mg/m ³

Engineering Controls	For normal application, special ventilation is not necessary. If user's operation generates mist, use ventilation to keep exposure to airborne contaminants below exposure limits
Respiratory Protection	Use approved respirator with dual organic vapour / mist and particulate cartridge if vapour concentration exceeds permissible exposure limit
Eye Protection	Use chemical splash goggles if risk of splashing present.
Skin Protection	Use rubber or plastic apron.
Hand Protection	Use oil resistant gloves.

SECTION IX: Physical and Chemical Properties

Physical State:	Liquid
Odour:	Mild petroleum odour
Appearance:	Clear, light amber
Odour Threshold:	Not established
Specific Gravity:	1.00 at 20°C (68°F)
Vapour Pressure:	<1.00 mm Hg at 20°C, It may be as low as < 0.02 mm Hg at 20°C
Vapour Density:	Not available
Evaporation Rate:	Not available
Boiling Point:	>230°C (>446°F)
Pour Point:	-21°C (-6°F)
Solubility in Water:	Insoluble
pH:	Not available
Partitioning Coefficient:	Not available

SECTION X: Stability and Reactivity

Chemical Stability:	Stable
Incompatibility:	Avoid contact with oxidizing agents, reducing agents, strong acids, strong bases, alkali metals, alkaline earth metals and ignition source. Iron, zinc and aluminium avoided at high temperatures.
Reactivity:	No reactivity
Polymerization:	Will not occur
Decomposition Products:	Oxides of carbon, sulphur, calcium, phosphorous, nitrogen, zinc, chlorine, hydrogen chloride, hydrogen sulphide and dense smoke



SECTION XI: Toxicological Information

Effects of Acute and Chronic Exposure:

Skin Contact Frequent or prolonged contact may irritate the skin and cause a skin rash.

Skin Absorption No evidence of adverse effects from available information. Prolonged contact may cause mild irritation.

Eye Contact Irritating to eyes, but will not injure eye tissue.

Inhalation Causes irritation of the respiratory tract and mucous membrane. If product is misted at elevated temperature, high concentration of vapour and/or mist may cause irritation, experienced as nasal discomfort and discharge.

Ingestion May cause gastrointestinal irritation. Ingestion of large amounts may cause intestinal blockage. If drawn into lungs from swallowing or vomiting, may cause bronchopneumonia or pulmonary edema. Repeated ingestion of large doses may damage the liver, as shown in animal studies.

Irritancy: Irritation to eyes and respiratory tract. Frequent or prolonged contact may irritate skin. If misted, inhalation of mist may cause irritation.

Sensitization: Repeated or prolonged contact may cause sensitization in some individuals.

Carcinogenicity: This product contains material that has been listed as a carcinogen or potential carcinogen by either the National Toxicology Program, International Agency for Research on Cancer, or the Occupational Safety and Health Administration. Dioctyl Phthalate (117-81-7): ACGIH A3 – Confirmed animal carcinogen with unknown relevance to humans.

Reproductive Toxicity: This product contains materials that have shown adverse reproductive effects in experimental animals. Reproductive studies in rats and mice: after oral administration indications of a fetotoxic effect and disturbances of the reproduction ability occurred.

Teratogenicity: Boys of moms highly exposed to phthalates show stunted genitals. The higher the level of phthalates in the mothers during the final months of pregnancy, the less masculine their boys were when examined by paediatricians. (Pittsburgh Post-Gazette 5/27/05).

Embryotoxicity: No information is available and no adverse effects are anticipated.

Mutagenicity: No information is available and no adverse effects are anticipated.

Toxicologically Synergistic Products: Not available.

SECTION XII: Ecological information

Environmental Fate:

No specific environmental fate data is available. This product is not expected to be readily biodegradable.

Environmental Effects:

This product contains materials that are considered to be marine pollutants. Avoid releasing into the environment.



SECTION XIII: Disposal Consideration

RCRA 40 CFR 261 Classification CAS 117-81-7: Listed
US EPA Waste Number / Classification U028

Waste Disposal

Dispose of waste material in compliance with all federal, state, provincial and local regulations. Incinerate in a furnace or bury in an approved landfill where permitted under appropriate federal, provincial and local regulations.

SECTION XIV: Transport Information

Department of Transport:	Regulated under DOT
TDG – Canada	Regulated under TDG.
DOT/TDG Proper Shipping Name:	Environmentally hazardous substance, liquid, n. o. s. (Contains triaryl phosphates, isopropylated and triphenyl phosphate.)
DOT/TDG Hazard Class:	9
Product Identification Number:	UN3082
Packing Group:	III
DOT/TDG Labels:	Primary: Miscellaneous Subsidiary: Marine Pollutant
DOT/TDG Placards:	None required

SECTION XV: Regulatory Information

CPR Compliance:

This product has been classified in accordance with the hazard criteria of *the Controlled Products Regulations* and the MSDS contains all of the information required by those regulations.

OSHA Hazard Communication Standards 29CFR 1910.1200:

This product is not known to contain any of the carcinogens required to be listed under OSHA Hazards Communication Standards 29 CFR 1910.1200.

WHMIS Classification:

This is a controlled product under WHMIS.

D2A: Materials Causing Other Toxic Effects: Very Toxic

D2B: Materials Causing Other Toxic Effects: Toxic

CERCLA:

Contains chemicals listed on CERCLA (40CFR 302.4). If this product is accidentally spilled, it is subject to special reporting under requirements of the Comprehensive Environmental Response and Liability Act. We recommend you also contact local authorities to determine if there may be other local reporting requirements.

CAS 117-81-7: 100lb final RQ; 45.4kg final RQ

SARA Title III Section 311/312:

Under the provisions of Title III, Section 311/312 of the Superfund Amendments and Reauthorization Act, this product is classified into the following hazard category: **ACUTE, CHRONIC, IMMEDIATE, DELAYED.**

SARA Title III Section 313:

This product does contain more than 1 % of any of the chemical substances listed under SARA Section 313.

CAS 117-81-7



RCRA:

Contains chemicals listed on the **RCRA** (40 CFR 261.33) for hazardous waste.
CAS 117-81-7: waste number U028

NPRI:

Contains chemicals listed in the **NPRI** under Canadian EPA.
CAS 117-81-7: Part 1A Substances

Chemical Inventory

Canada: The ingredients of this product are on the DSL.
United States: The ingredients of this product are on the TSCA

SECTION XVI Other Information

HMIS Information

Degree of Hazard	HMIS Rating
4= Severe	Health 1*
3= Serious	Flammability 1
2= Moderate	Reactivity 0
1= Slight	
0= Minimal	
*=Chronic	

Revision Information

Prepared by: Maryn Research

Phone: 1-403-252-2239

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Revision: 4.0

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