Section 1: Identification

Identification

Product name: Full Synthetic zMAX 20w50 Oil

Additional identification

Product Code 816325081 zMAX: 88350

Recommended use and restriction on use

Uses: **Petroleum/synthetic-based lubricant**

Details of the supplier of the safety data sheet

Supplier

Company Name: OIL-CHEM RESEARCH CORP. 5283
Address: HIGHWAY 49 S
HARRISBURG, NC 28075 USA

Telephone: (888)645-1101 Business Hours

Emergency telephone number: For Hazardous Materials (or Dangerous Goods) Incident (24/hrs day)
Call CHEMTEL 800 255 3924 or 813 248 0585

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

Section 2: Hazard(s) Identification

GHS Signal Word: None

GHS Classification: Not classified as hazardous

GHS Hazard Statements: None

GHS Precautionary Statements: Prevention: None. Response: None. Storage: None. Disposal: None.

Hazards Not Otherwise Classified: None

GHS Assessment: Approximately < 3% of this mixture consists of ingredient(s) of unknown acute toxicity.
Approximately < 50% of this mixture consists of ingredient(s) of unknown hazards to the aquatic environment.

Section 3: Composition/information on Ingredients

Component	CAS Number	EC Number	Concentration
Polyolefin	Proprietary	-----	15.0 - 35.0%
	Classification: Not classified as hazardous		
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	72623-87-1	376-738-4	50.0 - 70.0%
	Classification: Carc. 1B; H350 (*) Carc. 1B; H350: C ≥ 3.0% DMSO Repr. 2; H361d: C ≥ 3.0% DMSO Asp. Tox. 1; H304: Viscosity ≤ 20.5 mm2/s (40ºC)		
Zinc dialkyl dithiophosphate	Proprietary	------	1.0 - 2.0%
	Classification: Eye Dam. 1: H318; Skin Irrt. 2: H315; Aquatic Chronic 2: H411 Eye Dam. 1; H318: C≥ 12.5% Eye Irrt. 2A; H319: 10% ≤ C < 12.5% Skin Irrt. 2; H315: C≥ 6.25%		

Note (*): Components are highly refined and this hazard does not apply.
Other components are either non-hazardous or do not significantly contribute to the hazards of the product.
Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.
For the full test of the H-Statements mentioned in this Section, see Section 16.

Section 4: First-aid Measures

First Aid - Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.
First Aid - Skin:	In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention immediately if irritation develops or persists. Wash contaminated clothing before reuse.
First Aid - Ingestion:	If swallowed and feel unwell, call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
First Aid - Inhalation:	If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.
Important Symptoms/Effects - Acute and Delayed:	Mild tissue inflammation, nausea.
Advice to Physician:	Treat symptomatically.

Section 5: Fire-fighting Measures

Extinguishing Media:	Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
Specific Hazards:	This product is not flammable, but will burn in a fire. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.
Protective equipment and procedures for fire-fighters:	Wear full protective clothing and self-contained breathing apparatus.
Additional Advice:	None.

Section 6: Accidental Release Measures

Spill procedures:	Small spills: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally flush area with water/soap or an appropriate solvent, as this product is not appreciably soluble in water alone. Large spills: Contain spilled material if possible. Pump into suitable properly labeled containers.
Personal Precautions:	Wear suitable protective clothing and equipment.
Environmental Precautions:	Prevent the material from entering drains or water courses. Do not discharge directly into a water source. Advise authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Section 7: Handling and Storage

Handling: Wear appropriate personal protection (See section 8) when handling this material. The work area should be equipped with a safety shower and eye wash station. If exposed to the liquid, avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapors, mists or sprays. Use in a well-ventilated area.

Storage: Keep container(s) tightly closed. Use and store this material at room temperature away from sources of ignition, heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).

Additional Advice: Store in original container. Store as directed by the manufacturer.

Section 8: Exposure Controls/Personal Protection

Occupational Exposure Standards: Exposure limits are listed below, if they exist.

Polyolefin	Manufacturer REL: 5mg/m3 TWA
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	(as petroleum distillates - naphtha) NIOSH REL: 350 mg/m3 TWA NIOSH REL: 1800 mg/m3 STEL OSHA PEL: 500 ppm (2000 mg/m3 (as oil mist) NIOSH REL: 5 mg/m3 TWA NIOSH STEL: 10 mg/m3 TWA OSHA PEL: 5 mg/m3 TWA
Zinc dialkyl dithiophosphate	None

Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust) and control of process conditions.

Respiratory Protection: A NIOSH certified self-contained breathing apparatus or air purifying respirator with an organic cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.

Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).

Eye Protection: Approved eye protection (safety glasses with side shields or goggles) to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Body Protection: Impervious clothing should be worn as needed to prevent skin contact.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Light to dark amber
Odor:	Characteristic
Odor Threshold:	Not available
pH:	Not available
Melting Point/Range (ºC/ºF):	-51ºC / -59.8ºF (pour point)
Boiling Point/Range (ºC/ºF):	> 200ºC / 392ºF (based on constituents)
Flash Point/Range (ºC/ºF):	238ºC / 460.4ºF
Evaporation Rate:	Not available
Flammability / Explosivity Limits in Air (%):	Not available
Vapor Pressure:	< 0.075 mmHg (20ºC) (based on constituents)
Vapor Density (Air = 1):	Not available
Relative Density:	0.8658 g/cm3 (15.6ºC)
Solubility in Water:	Insoluble
Partition Coefficient:	Not available
Autoignition Temperature (ºC/ºF):	> 250ºC / 482ºF (based on constituents)
Decomposition Temperature (ºC/ºF):	Not available
Viscosity:	143.0 mm2/s (40ºC) 20.2 mm2/s (100ºC)
Explosive Properties:	None
Oxidizing Properties:	None
Volatile Organic Content (VOC) (g/l):	525 - 625 g/l (as defined by 40CFR51.100)

Section 10: Stability and Reactivity

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibles:	Strong oxidizing agents.
Hazardous Decomposition Products:	Oxides of carbon, oxides of phosphorus, oxides of sulfur, metal oxides, aliphatic compounds, toxic by-products.

Section 11: Toxicological Information

If available, toxicity data for the product is given, otherwise component data is listed.

Acute Toxicity:
This product is not expected to be appreciably toxic.
(Polyolefin). Oral LD50 (rat) > 5000 mg/kg (similar oil), Dermal LD50 (rat) > 2000 mg/kg (similar compound), LC 50 (rat) 5200 mg/m3 (4 hr) (aerosol - similar compound)
(Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based) Oral LD50 (rat) > 5000 mg/kg (similar oil), Dermal LD50 (rat) > 5000 mg/kg (similar oil), Inhalation LC50 (rat) 2.18 mg/l (4 hr) (aerosol - similar oil)
(Zinc dialkyl dithiophosphate) Oral LD50 (rat) 3195 mg/kg (surrogate compound), Dermal LD50 (rabbit) > 3160 mg/kg (surrogate compound), Inhalation LC50 (rat) > 5000 mg/m3 (no mortality - surrogate compound)

Skin Corrosion / Irritation:
This product may be slightly irritating to the skin.
(Polyolefin) Mildly irritating to skin (rabbit - similar oil)
(Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) Slightly irritating to skin (rabbit - similar oil)
(Zinc dialkyl dithiophosphate) No data.

Serious Eye Damage / Irritation:
This product may be slightly irritating to the eyes.
(Polyolefin) Mildly irritating to eye (rabbit - similar compound)
(Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) Slightly irritating to eye (rabbit - similar oil)
(Zinc dialkyl dithiophosphate) Irritating to eye with possible damage (rabbit - surrogate compound)

Respiratory or Skin Sensitization:
This product is not expected to be dermally sensitizing.
(Polyolefin) Not dermally sensitizing (similar compound)
(Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) Not dermally sensitizing (guinea pig - similar oil)
(Zinc dialkyl dithiophosphate) Not dermally sensitizing (guinea pig - surrogate compound)

Mutagenicity:
This product is not expected to be mutagenic.
(Polyolefin) Not mutagenic (similar compound)
(Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian cell gene mutation assay and micronucleus assay - similar oils)
(Zinc dialkyl dithiophosphate) Not mutagenic (Ames test and micronucleus assay - surrogate compound)

Carcinogencity:
This product is not expected to be carcinogenic.
(Polyolefin) No data.
(Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) In a 78 week study in mice by dermal application (0.25 dose rate applied once or twice a week) it was shown that there was no carcinogenic potential in sufficiently refined oil. Not classified as to carcinogenicity to humans (IARC - Petroleum solvents)
(Zinc dialkyl dithiophosphate) No data.

Reproductive / Development Toxicity:	This product is not expected to be reproductively or developmentally harmful. (Polyolefin) Not expected to be reproductively or developmentally harmful. (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) In dermally-exposed rats at up to 1000 mg/kg/day during gestation, the developmental NOAEL was determined to be 125 mg/kg/day based on decreased fetal body weights and skeletal anomalies at the highest dose (similar oil) (Zinc dialkyl dithiophosphate) The NOAEL for reproductive toxicity was 160 mg/kg/day in orally-dosed rats (surrogate compound)
Chronic/Subchronic Toxicity: Specific Targe Organ/Systemic Toxicity - Single Exposure:	(Polyolefin) No data. (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) No data. (Zinc dialkyl dithiophosphate) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity - Repeated Exposure:	(Polyolefin) Not expected to cause organ damage from prolonged or repeated exposure (similar compound) (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) In a 13-week oral study in rats at up to 500 mg/kg/day, the LOAEL was 125 mg/kg/day based on organ weight changes, reddening/discoloration of organs and atrophy in male sex organs (similar oil) (Zinc dialkyl dithiophosphate) No data.
Aspiration Hazard:	This product is not expected to pose an appreciable aspiration hazard.
Additional Information:	None.

Section 12: Ecological Information

If available, ecological data for the product is given, otherwise component data is listed.

Acute Ecotoxicity:	This product is not expected to be appreciably harmful to aquatic species. (Polyolefin) Not expected to be harmful to aquatic organisms. (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) LL50 (Fathead minnow) > 100 mg/l/96 hr, EL50 (Daphna magna) > 10000 mg/l/48 hr, NOEL (algae) ≥ 100 mg/l/72 hr (Zinc dialkyl dithiophosphate) LC50 (Rainbow trout) 4.5 mg/l/96 hr (surrogate compound) EL50 (Daphna magna) 5.4 mg/l/48 hr (surrogate compound), EbC50 (green algae) 2.1 mg/l/96 hr (surrogate compound).
Mobility:	(Polyolefin) No data. (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) No data. (Zinc dialkyl dithiophosphate) Absorbs to soil and has low mobility (surrogate compound).
Persistence/Degradability:	(Polyolefin) No data. (Lubricating oils (petroleum) C20-50, hydrotreated neutral oil-based) Not readily biodegradable (2-4% in 28 days). (Zinc dialkyl dithiophosphate) Not readily biodegradable (4.2% in 28 days - surrogate compound).
Bioaccumulation:	(Polyolefin) No data. (Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based) No data. (Zinc dialkyl dithiophosphate) Not expected to bioaccumulate in aquatic organisms.
Other adverse effects:	None.

Section 13: Disposal Considerations

Environmental precautions:	Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.
Product disposal	Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.
Container disposal:	Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

Section 14: Transport Information

DOT (US)

Proper Shipping Name:	Not regulated
UN Number:	None
Class:	None
Packaging Group:	None
Reportable Quantity:	None
Marine Pollutant:	None

Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.

IATA

Proper Shipping Name:	Not regulated
UN Number:	None
Class:	None
Packing Group:	None

IMDG

Proper Shipping Name:	Not regulated
UN Number:	None
Class:	None
Packing Group:	None
Marine Pollutant:	None

Section 15: Regulatory Information

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	One or more components of this product are not listed on the Canadian Domestic Substance List. Limited quantities are permitted.
EU REACh:	One or more components of this product may not have been pre-listed or registered under REACh. Limited quantities are permitted.
TSCA Sec 12(b) Export Notification:	This product does not contain a chemical at or above de-minimis concentrations which requires reporting
Canadian WHMIS Classification:	None. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

Massachusetts Right-to-Know:	This product contains materials subject to disclosure under the Massachusetts Right-to-Know Law: - Lubricating oils (petroleum), C20-50 hydrotreated neutral oil-based (as petroleum distillates)
New Jersey Right-to-Know:	This product contains materials subject to disclosure under the New Jersey Right-to-Know Law: - Lubricating oils (petroleum), C20-50 hydrotreated neutral oil-based (as petroleum distillates) - Zinc dialkyl dithiophosphate (as zinc compound) (3012)
Pennsylvania Right-to-Know:	This product contains materials subject to disclosure under the Pennsylvania Right-to-Know Law: - Lubricating oils (petroleum), C20-50 hydrotreated neutral oil-based (as petroleum distillates) - Zinc dialkyl dithiophosphate (as zinc compound)
California Proposition 65:	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	None
SARA TITLE III-Section 313 (40 CFR 372):	This product contains materials which are listed in Section 313 at or above de minimis concentrations: - Zinc dialkyl dithiophophate (as zinc compound)
CERCLA Hazardous Substance (40 CFR 302):	This product contains materials subject to reporting under CERCLA and Section 304 of EPCRA: - Zinc dialkyl dithiophophate (as zinc compound)
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1)

Other Chemical Inventories:

Australia (AICS):	All components of this product are listed.
China (IECSC):	One or more components may not be listed.
Japan (ENCS):	One or more components may not be listed.
Korea (KCI):	One or more components may not be listed.
Phillippines (PICCS):	All components of this product are listed.
Taiwan (TCSI):	One or more components may not be listed.

Section 16: Other Information

NFPA Rating - HEALTH	1
NFPA Rating - FIRE	1
NFPA Rating - REACTIVITY	0
NFPA Rating - SPECIAL	NONE

Full text of H-Statements referred to under Section 3

H304	May be fatal if swallowed and enters airways
H350	May cause cancer
H361	Suspected of damaging fertility or the unborn child
H318	Causes serious eye damage
H319	Causes serious eye irritation
H315	Causes skin irritation
H411	Toxic to aquatic life with long lasting effects

SDS Date Issued	January 25, 2019
SDS Current Version	1.0 Version Date: January 25, 2019
SDS Revision History	v1.0 Initial version

Abbreviations:

GHS: Globally Harmonized System of Classification and Labeling of Chemicals
CAS#: Chemical Abstract Services Number
ACGIH: American Conference of Governmental Industrial Hygenists
OSHA: Occupational Safety and Health Administration
NFPA: National Fire Protection Association
DOT: US Department of Transportation
RCRA: US Resource Conservation and Recovery Act
TLV: Threshold Limit Value
TWA: Time-Weighted Average
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit
WEEL: Workplace Environmental Exposure Levels
AIHA: American Industrial Hygiene Association
NTP: National Toxicology Program
IARC: International Agency for Research on Cancer
LD50: Lethal Dose 50%
LC50: Lethal Concentration 50%
NOAEL: No Observed Adverse Effect Level
NOEL: No Observed Effect Level
EC50: Effective Concentration 50%
LL50: Lethal Loading Ratio 50%
BCF: Bioconcentration Factor
BOD: Biological Oxygen Demand
Koc: Soil Organic Carbon Partition Coefficient
Tlm: Median Tolerance Limit

Key References

United States National Library of Medicine's TOXNET
Patty's Toxicology, 5th Edition
European Commission's Institute for Health and Consumer Protection
European Chemicals Agency (ECHA)
American Conference of Governmental Industrial Hygienists
International Agency for Research on Cancer
United States National Toxicology Program
United States Occupational Safety and Health Administration
United States Department of Transportation
Supplier Material Safety Data Sheets

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Prepared by:	ChemOne Compliance LLC