



Nonfood Compounds  
Program Listed H2

## Precise™ Zinc Free NAW Lubricating Oils

### Zinc Free Lubricating Oils

#### About Precise™ Zinc Free NAW Lubricating Oils

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**Precise™ Zinc Free NAW Lubricating Oils** are premium quality, light coloured, non anti-wear oils made from highly refined paraffin base stocks for excellent stability. **Precise™ Zinc Free NAW Lubricating Oils** are specifically formulated for operation under normal temperature ranges and are compounded to assure excellent protection against rust, foam and oxidation. These oils meet or exceed the requirements for those applications needing R&O hydraulic or non anti-wear turbine oil properties.

#### Applications

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**Precise™ Zinc Free NAW Lubricating Oils** are best suited for:


- Hydraulic applications that demand ashless chemistry due to silver-plated pump components
- Extended high-temperature operations
- High pressure or frequent overload scenarios
- Non anti-wear hydraulic or turbine oil specifications

#### Available Packaging

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These products are available in pails (19L/5 US Gal), drums (208L/55 US Gal), and bulk (1250L/330 US Gal) containers.

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# Precise™ Zinc Free NAW Lubricating Oils

## Zinc Free Lubricating Oils

### Performance Benefits

Precise™ Zinc Free NAW Lubricating Oils meet or exceed the requirements for industrial and mobile hydraulic systems, which call for:

OEM	Specification
Vickers	▪ I-286-S, M-2950-S
Racine	▪ Variable volume vane pumps
DIN 51524	▪ Part 2
Jeffrey	▪ No. 87
US Steel	▪ 127, 136
General Motors	▪ LH-04-1, LH-06-1, LH-15-1
Dension	▪ HF-1, HF-2, HF-0
Cincinnati Milacron	▪ P-68, P-69, P-70
Lee-Norse	▪ 100-1
Ford	▪ M-6C32
BF Goodrich	▪ 0152
AFNOR	▪ E 48-603

### Technically Speaking

ISO Viscosity Grade	32	46	68
NSF Registration Number	137084	137085	137086
Viscosity, cSt @ 40°C	32	46	68
Viscosity, cSt @ 100°C	5.3	6.7	9.1
Viscosity, SUS @ 100°F	150.5	214	330
Viscosity, SUS @ 210°F	43.6	48.1	54
Viscosity Index	98.3	98	98
Flash Point, °C (COC)	> 205	> 210	> 210
Flash Point, °F (COC)	> 400	> 410	> 410
Pour Point, °C/°F	-30/-22	-22/-8	-22/-8
Rust, Dist. Water	Pass	Pass	Pass
Specific Gravity, g/mL	0.860	0.864	0.870
Density, lbs./US Gal	7.16	7.19	7.21

*These are typical figures and do not constitute a specification.*

### Handling and Safety Information

For information on the safe handling and use of this product, refer to its **Material Safety Data Sheet (MSDS)**, obtainable from [www.exactspecialty.com](http://www.exactspecialty.com)



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## SECTION 1: Product Information and Company Identification

Common Name	Precise™ Zinc Free NAW Lubricating Oils
Product Code	E1080, E1085, E1090
Material Use	Zinc Free Lubricating Oils
Manufacturer	Commonwealth Oil Corporation 2080 Ferriss Rd. N., Harrow ON. NOR 1G0
In Case of Emergency	CANUTEC (613) 996-6666, collect 24 hours

## SECTION 2: Composition and Information on Ingredients

Component	CAS Registry #	OSHA PEL	ACGIH TVL	Concentration, %
<b>This material is classified as not hazardous under OSHA regulations in the United States, the WHMIS in Canada and NOM-018-STPS-2000 in Mexico</b>				

- See SECTION 8 for Exposure Limits and SECTION 11 for Toxicological Data

## SECTION 3: Hazards Information

Chemical Family	<ul style="list-style-type: none"> <li>Petroleum hydrocarbon</li> </ul>
Physical State	<ul style="list-style-type: none"> <li>Liquid</li> </ul>
Emergency Overview	<ul style="list-style-type: none"> <li>No specific hazard</li> <li>Use with care</li> <li>Follow good industrial hygiene practices</li> </ul>
Routes of Entry	<ul style="list-style-type: none"> <li>Dermal and eye contact, inhalation, ingestion</li> </ul>
Potential Acute Health Effects	<ul style="list-style-type: none"> <li>None known</li> </ul>
Medical Conditions Aggravated By Overexposure	<ul style="list-style-type: none"> <li>None known</li> </ul>
Overexposure Signs and Symptoms	<ul style="list-style-type: none"> <li>Not available</li> </ul>

- See SECTION 11 for Toxicological Data

## SECTION 4: First Aid Measures

Eye Contact	<ul style="list-style-type: none"> <li>Check for and remove any contact lenses. In case of contact, flush eyes with plenty of water for at least 30 minutes. Cold water may be used. Get medical attention should irritation persist.</li> </ul>
Skin Contact	<ul style="list-style-type: none"> <li>Remove any contaminated clothing. Wash with soap and water. Get medical attention should irritation persist.</li> </ul>
Inhalation	<ul style="list-style-type: none"> <li>If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</li> </ul>

## Precise™ Zinc Free NAW Lubricating Oils – Material Safety Data Sheet (MSDS)

Ingestion

- Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious patient. Should large amounts be swallowed, call a physician.
- Not available

Note to Physician

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### SECTION 5: Fire Fighting Measures

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Flammability

Auto-Ignition Temperature

Flash Point (COC)

Flammable Limits

Hazardous Combustion Products

Fire Hazard in Presence of Various Substances

Explosion Hazard in Presence of Various Substances

Fire Fighting Media and Instructions

Protective Clothing (Fire)

Special Remarks on Fire Hazards

- Low hazard – combustible or burns at temperatures above flash point
  - 354°C (670°F)
  - > 205°C (> 400°F) to > 210°C (> 410°F)
  - Not established
  - Products are smoke, carbon monoxide, carbon dioxide, and trace oxides of sulfur
  - Flammable in presence of open flames, spark, static discharge and at or above flash point
  - Risk in Presence of Mechanical Impact: Not available
  - Risk in Presence of Static Discharge: Not available
  - Small Fire: Use dry chemical powder
  - Large Fire: Use water spray, fog, or foam. Do not use water jet.
  - Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use MSHA/NIOSH approved respirator or equivalent
  - Do not use force stream as this could cause the fire to spread
  - SCBA should be worn by fire fighters
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### SECTION 6: Accidental Release Measures

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Small Spill and Leak

Large Spill and Leak

- Absorb with an inert material and put spilled material into appropriate waste disposal
  - Absorb with an inert material and put spilled material into 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
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- See SECTION 8 for Personal Protective Equipment and SECTION 13 for Waste Disposal

### SECTION 7: Handling and Storage

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Handling

- Proper grounding procedures should be used as static charge may accumulate
- Avoid breathing vapors or spray mists
- Avoid contact with eyes, skin and clothing
- Always wash your hands after handling
- Do not cut, weld, heat or pressurize containers

# Precise™ Zinc Free NAW Lubricating Oils – Material Safety Data Sheet (MSDS)

## Storage

- Keep containers tightly closed
- Store in dry, cool, and ventilated areas
- Do not cut, weld, heat or pressurize empty containers
- Do not store near open flames or sources of ignition

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## SECTION 8: Exposure Controls and Personal Protection

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### Personal Protection

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- |                             |   |
|-----------------------------|---|
| Eyes                        | ▪ Safety glasses or goggles are advisable   |
| Body                        | ▪ Lab coat or suitable protective clothing are advisable  |
| Respiratory                 | ▪ Not required under normal and intended usage conditions   |
| Hands                       | ▪ Chemical resistant or oil impervious gloves are advisable   |
| Feet                        | ▪ Shoes (as required by work place)   |
| Protection for Large Spills | ▪ Splash goggles, full suit, vapor respirator, boots, chemical resistant gloves<br>▪ Self contained breathing apparatus should be used to avoid inhalation of product |
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### Engineering Controls

- Good ventilation should be sufficient to control airborne levels
- Local exhaust is recommended to control emissions at the source
- Mechanical ventilation should be used for confined areas
- Eyewash stations and safety showers should be proximal to the workstation

### Exposure Limits

- ACGIH TLV (US and Canada)

### Oil Mist – Severely Refined

- TLV-TWA: 5mg/m<sup>3</sup>
- Form: Mist

*Consult your local authorities for your acceptable exposure limits*

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## SECTION 9: Physical and Chemical Properties

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|----------------------------|--|
| Physical State             | ▪ Liquid                                 |
| Appearance and Colour      | ▪ Clear, golden amber to dark brown      |
| Odour                      | ▪ Petroleum odour                        |
| pH                         | ▪ N/A                                    |
| Flash Point (COC)          | ▪ > 205°C (> 400°F) to > 210°C (> 410°F) |
| Boiling/Condensation Point | ▪ > 260°C (500°F)                        |
| Pour Point                 | ▪ -22°C/-8°F to -30°C/-22°F              |
| Freezing Point             | ▪ Not available                          |
| Specific Gravity           | ▪ 0.860 – 0.870g/mL (Water = 1g/mL)      |
| Density                    | ▪ 7.16 – 7.21 lbs./US Gal                |
| Vapor Pressure             | ▪ < 0.5 mmHg @ 20°C                      |
| Vapor Density              | ▪ > 1.0 (Air = 1)                        |
| % Volatility, by volume    | ▪ N/A                                    |
| Evaporation Rate           | ▪ Negligible                             |
| VOC                        | ▪ N/A                                    |
| Viscosity (cSt @ 40°C)     | ▪ 32, 46, 68                             |
| Solubility in Water        | ▪ Insoluble                              |
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# Precise™ Zinc Free NAW Lubricating Oils – Material Safety Data Sheet (MSDS)

## SECTION 10: Stability and Reactivity

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Stability and Reactivity	▪ Stable
Incompatibility with Various Substances	▪ Reactive with strong oxidizing agents
Hazardous Decomposition Products	▪ Fumes, smoke, carbon monoxide and oxides of sulfur in case of incomplete combustion
Hazardous Polymerization	▪ Will not occur

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## SECTION 11: Toxicological Information

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### Chronic Effects on Humans

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Eyes	▪ Slightly irritating, but will not injure eye tissue
Skin	▪ Low toxicity. Prolonged exposure may irritate
Ingestion	▪ Low toxicity
Inhalation	▪ Negligible under normal conditions
	▪ Elevated temperatures, or mechanical action may cause vapors, mists or fumes which may be irritating to the eyes, nose, throat and lungs

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### Other Effects

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Acute Toxic Data	▪ Avoid breathing mist and fumes
	▪ Proper ventilation should be utilized
Other Toxic Effects on Humans	▪ Low
Special Remarks on Toxicity to Animals	▪ Low
Special Remarks on Other Toxic Effects on Humans	▪ None reported

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## SECTION 12: Ecological Information

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BOD and COD	▪ Not established
Biodegradability/OECD	▪ Not established
Mobility	▪ Not established
Products of Degradation	▪ Not established
Products of Biodegradation	▪ Not established
Special Remarks on the Products of Biodegradation	▪ Not established

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## SECTION 13: Disposal Considerations

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- Wastes should be disposed of in accordance to local, federal and state environmental control regulations

# Precise™ Zinc Free NAW Lubricating Oils – Material Safety Data Sheet (MSDS)

## 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	-	-	-	-	-
IMDG Code	Not regulated	-	-	-	-	-
IATADGR Class	Not regulated	-	-	-	-	-

- **NAERG** (North American Emergency Response Guide): N/A

## SECTION 15: Regulatory Information

### United States: Federal Regulations

- **TSCA 8(b) Inventory:** All components are listed or exempt
- **SARA 302/304/311/312 Extremely Hazardous Substances:** No products found
- **SARA 302/304 Emergency Planning and Notification:** No products found
- **SARA 302/304/311/312 Hazardous Chemicals:** No products found
- **SARA 311/312 MSDS Distribution – Chemical Inventory – Hazard Identification:** No products found
- **Clean Water Act (CWA) 307:** No products found
- **Clean Water Act (CWA) 311:** No products found
- **Clean Air Act (CAA) 112 Accidental Release Prevention:** No products found
- **Clean Air Act (CAA) 112 Regulated Flammable Substances:** No products found
- **Clean Air Act (CAA) 112 Regulated Toxic Substances:** No products found

### United States: State Regulations

- **California Prop. 65:** No products found

### Canada: WHMIS

- Not controlled under WHMIS
- **CEPA DSL:** All products are listed or exempt
- "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 the *Controlled Products Regulations*."

