



# Commonwealth Oil

## CommCool™ HD



Non-Chlorinated Semi-Synthetic Metalworking Fluid

### WHAT IT DOES:

**CommCool™ HD** semi-synthetic metalworking fluid has been specifically formulated to provide you with superior performance for all your metalworking needs. **CommCool™ HD** is one of the most economical and most efficient products available on the market today. **CommCool™ HD** offers a broad range of performance features. This product has excellent bio-resistance, emulsion stability, plus rust and corrosion prevention characteristics that exceed other available products. This unique formulation provides superior cooling and lubricity properties, which promote increased tool life and superior surface finishes. **CommCool™ HD** is formulated to work in a wide range of water hardness conditions and to perform well even in moderately hard or very soft water. **CommCool™ HD**, like all Commonwealth products, has optimal health, safety and environmental benefits designed right into the product.

**CommCool™ HD** has additional lubricity and extreme pressure additives, giving it the performance characteristics needed for medium to heavy duty machining applications.

### WHERE TO USE IT:

**CommCool™ HD** is highly recommended for:

- Lathes
- Drill Presses
- Milling Machines
- CNC Machines

### PERFORMANCE BENEFITS:

**CommCool™ HD** has been specifically formulated to deliver the following performance benefits:

- Excellent lubricity properties for medium to heavy duty work.
- Economical.
- Mixes readily with water of varying degrees of hardness.
- Exhibits excellent bioresistance characteristics.
- Operator and environmentally safe.
- Has excellent corrosion protection.
- Can be rinsed away easily with water.





## TECHNICALLY SPEAKING:

Test	CommCool™ HD
pH Concentrate	10 ±10%
pH @ 5%	9 ±10%
Cast Iron Chip Test – ASTM#D-4627 (Modified)	Pass
Refractive Index (RI) Factor	Multiply RI by 1.78 for concentration %
RI for 5% emulsion	2.80
RI for 10% emulsion	5.60
Density, lbs./US Gallon	8.32
Specific Gravity	1.00

These are typical figures and do not constitute a specification.

### Handling & Safety Information

For information on the safe handling and use of this product, refer to the Material Safety Data Sheet obtainable from Commonwealth Oil Corporation.

### The Effects of Water Quality on Emulsion Stability

To obtain the best performance from this or any water miscible metalworking fluid, begin with quality water. Water hardness in parts per million (PPM) of calcium and magnesium varies by region. To determine your plant's water hardness, telephone your regional Water Treatment Plant or send a 4 ounce sample to our laboratory, and we will determine the water hardness for you. Water hardness may also be reported in grains of hardness. To convert to parts per million, multiply by 17.5 (1 grain = 17.5 PPM). The best emulsion stability and wetting ability are obtained with reverse osmosis, distilled or de-ionized water or a blend of them. The ideal water hardness range is greater than 25 PPM but less than 125 PPM. Exceptionally hard water (above 200 PPM) can have a de-stabilizing effect on this coolant, and can often prematurely deplete rust inhibitor, metal passivating, and other performance additives. To ensure optimum performance of the coolant, mix according to the following minimum concentrations.

SUGGESTED MINIMUM MIXING CONCENTRATIONS FOR WATER HARDNESS					
	0 – 50 PPM	50 – 100 PPM	100 – 200 PPM	200 – 300 PPM	300 – 400 PPM
<b>CommCool™ HD</b>	4% (25:1)	4.5% (22:1)	5% (20:1)	6% (16:1)	7% (13:1)

### Proper Mixing and Care of Coolants

- ◆ Always add concentrate to water with a small amount of agitation
- ◆ Protect product from freezing
- ◆ If product has frozen, allow it to thaw naturally and completely to room temperature. The product should be checked for consistency. If necessary, product can be re-mixed with slight agitation
- ◆ Store coolant containers indoors. If coolant drums must be stored outdoors, place them on their sides to minimize the potential for water to enter drums
- ◆ Never expose coolants to temperature extremes
- ◆ Do not add any other compound to this or any other coolant unless recommended by the manufacturer



**Available in Pails, Drums and One-Way Bulk Containers**

CommCool<sup>™</sup> HD



**SECTION 1: Product Information and Company Identification**

**Common Name** : CommCool<sup>™</sup> HD  
**Product Code** : 10180  
**Material Use** : Semi-Synthetic Metalworking Fluid  
**Supplier/Manufacturer** : Commonwealth Oil, 2080 Ferriss Rd N., Harrow, ON, N0R 1G0  
**In Case of Emergency** : CANUTEC (613) 996-6666 COLLECT 24 Hr

**SECTION 2: Composition, Information on Ingredients**

Component	CAS Registry No.	OSHA PEL	ACGIH TLV	Concentration %
Fatty Acid Amide Mixture	Mixture	Not Available	Not Available	< 9.0
Petroleum Sulfonate	Mixture	Not Available	Not Available	< 5.0
Corrosion Inhibitor Additive	Mixture	5mg/m <sup>3</sup>	5mg/m <sup>3</sup>	< 2.5
ETHYLENE OXIDE-NONYLPHENOL POLYMER	9016-45-9	Not Available	Not Available	< 2.5
Triethanolamine	102-71-6	5mg/m <sup>3</sup>	5mg/m <sup>3</sup>	< 3.0

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

**SECTION 3: Hazards Identification**

**Chemical Family** : Complex Mixture  
**Physical State** : Liquid  
**Emergency Overview** : No specific Hazard  
 Use with care.  
 Follow good Industrial Hygiene practices.  
**Routes of Entry** : Dermal contact, eye contact, inhalation and ingestion.  
**Potential Acute Health Effects** : No known significant effects or critical hazards.  
**Potential Chronic Health Effects** : Not applicable for carcinogenic, mutagenic, or teratogenic effects.  
**Medical Conditions Aggravated by Overexposure** : Repeated or prolonged exposure is not known to aggravate medical condition.  
**Overexposure Signs and 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 if irritation occurs and or persists.  
**Skin Contact** : Remove any contaminated clothing. Wash with soap and water. Get medical attention if irritation occurs and or persists.  
**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 patient. If large amounts of this material are swallowed, call a physician immediately.

**Notes to Physician** : Not available

### SECTION 5: Fire Fighting Measures

**Flammability of the Product** : Not Applicable (Water-Based Product)  
**Auto Ignition Temperature** : Not Applicable (Water-Based Product)  
**Flash Point (COC)** : Not Applicable (Water-Based Product)  
**Flammable Limits** : No Data  
**Hazardous Combustion Products** : These products are not combustible.  
**Fire Hazards in Presence of various Substances** : Not Applicable.  
 Slightly flammable in the presence of heat and complete water evaporation.  
**Explosion Hazard 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 spilled material in an appropriate waste disposal.  
**Large Spill and Leak** : Absorb with an inert material and put spilled material in an appropriate waste disposal.  
 Do not allow any potentially contaminated water including rainwater, runoff from fire fighting or spills 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** : Use proper grounding procedures as material can accumulate static charges. Avoid breathing vapors or spray mists. Avoid contact with eyes, skin and clothing. After handling, always wash hands thoroughly with soap and water. Do not cut, weld, heat or pressurize containers.  
 Use with adequate ventilation.  
**Storage** : Keep container tightly closed. Store in a dry, cool and well-ventilated area. Do not cut, weld, heat or pressurize empty containers. Do not store near open flames or sources of ignition.

### SECTION 8: Exposure Controls, Personal Protection

**Engineering Controls** : Good general ventilation should be sufficient to control airborne levels. Local exhaust is recommended to control emissions at the source. Mechanical ventilation is recommended for confined areas. Ensure eyewash stations and safety showers are proximal to the work station location.

#### Personal Protection

**Eyes** : Safety glasses or goggles are advisable.  
**Body** : Lab coat or suitable protective clothing is advisable.  
**Respiratory** : A respirator is not needed under normal and intended usage conditions.  
**Hands** : Chemical resistant or oil impervious gloves are advisable.  
**Feet** : Shoes (as required by the work place).  
**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** : 5 mg/m<sup>3</sup> ACGIH TLV (United States and Canada)  
**Oil Mist – Severely refined** TLV-TWA: 5 mg/m<sup>3</sup> Form: Mist  
Consult local authorities for your acceptable exposure limits.

### SECTION 9: Physical and Chemical Properties

**Physical State** : Liquid  
**Appearance and Color** : Clear to slightly turbid blue/green solution.  
**Odour** : Mild pleasant odour.  
**pH** : 10 ±10%  
**Flash Point (COC)** : Not Applicable  
**Boiling/Condensation Point** : 100°C (212°F)  
**Pour Point °C (°F)** : Not Established  
**Freezing Point** : 0°C (32°F)  
**Specific Gravity** : 1.00 (Water = 1)  
**Density, lbs./Gallon** : 8.32  
**Vapor Pressure** : Not Applicable  
**Vapor Density** : Not Applicable  
**% Volatility, By volume** : Similar to Water  
**Evaporation Rate** : Negligible (nBuAc=1)  
**VOC** : Not Applicable  
**Viscosity cSt @ 40°C** : Not Established  
**Solubility in Water** : Soluble

### SECTION 10: Stability and Reactivity

**Stability and Reactivity** : The product is stable.  
**Incompatibility with Various Substances** : Reactive with strong oxidizing agents.  
**Hazardous Decomposition Products** : Fumes, smoke, and carbon monoxide and sulphur oxides in case of incomplete combustion.  
**Hazardous Polymerization** : Will not occur

### SECTION 11: Toxicological Information

**Acute Toxicity Data** : Avoid breathing mist and fumes. Proper ventilation should be utilized.  
**Chronic Effects on Humans:**  
**Eyes** : Slightly irritating, but will not injure eye tissue. May irritate the eyes.  
**Skin** : Low toxicity. Frequent or prolonged contact may irritate the skin.  
**Ingestion** : Low toxicity.  
**Inhalation** : Negligible hazard at normal temperatures. Elevated temperatures or mechanical action may form vapors, mists or fumes, which may be irritating to the eyes, nose, throat and lungs. Avoid breathing vapors or mists.  
**Other Toxic Effects on Humans** : Low  
**Special Remarks on Toxicity to Animals** : Low  
**Special Remarks on Other Toxic Effects on Humans** : None reported.

### SECTION 12: Ecological Information

**BOD and COD** : Not Established  
**Biodegradability/OECD** : Not Established  
**Mobility** : Not Established  
**Products of Degradation** : Not Established

**Toxicity of the Products of Biodegradation** : Not Established  
**Special Remarks on the Products of Biodegradation** : Not Established

**SECTION 13: Disposal Considerations**

**Waste Information** : Waste should be disposed of in accordance to local, federal and state environmental control regulations.

Consult your local or regional authorities.

**SECTION 14: Transport Information**

Regulatory Information	UN Number	Proper Shipping Name	Class	Packing Group	Label	Additional Information
<b>United States (DOT)</b>	Not Regulated	-	-	-	-	-
<b>Canada (TDG)</b>	Not Regulated	-	-	-	-	-
<b>Mexico (NOM-004-SCT2-1994)</b>	Not Regulated	-	-	-	-	-
<b>IMDG Code</b>	Not Regulated	-	-	-	-	-
<b>IATADGR Class</b>	Not Regulated	-	-	-	-	-

**NAERG** (North American Emergency Response Guide): Not applicable

**SECTION 15: Regulatory Information**

**United States**

**U.S. Federal Regulations** : TSCA 8(b) inventory: All components listed.  
 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.

**State Regulations**

: California prop. 65: No products found.

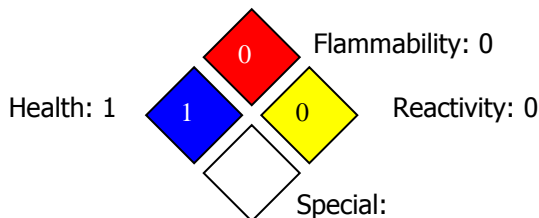
**Canada**

**WHMIS (Canada)** : Class D2B WHMIS (Canada)  
 CEPA DSL: All components listed.

**Mexico**

**Classification**

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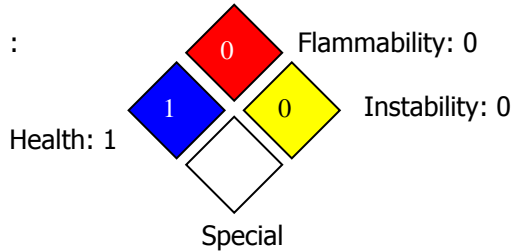
**SECTION 16: Other Information**

**Label Requirements** : USE WITH CARE.  
USE AS DIRECTED.

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

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	B

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



**Date of Issue** : March 14, 2017

**Date of Previous Issue** : March 12, 2014  
**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 of 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.

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