



Nonfood Compounds
Program Listed
H1 & HT1

Exact™ Heat Transfer Oils

Food Grade Heat Transfer Oils

About Exact™ Heat Transfer Oils

Exact™ Heat Transfer Oils are premium quality lubricants using severely hydro-treated food grade oils and the highest quality additives. Exact™ Heat Transfer Oils are engineered under these strict constraints to offer prolonged service life under severe operating conditions. Exact™ Heat Transfer Oils meet FDA Regulations 21 CFR 178.3570 and international food standards. Exact™ Heat Transfer Oils are NSF H1 and HT1 registered, as well as Canadian Food Inspection Agency approved.

Applications


Exact™ Heat Transfer Oils are best suited for:

- Food processing areas including central cooking facilities, edible oil deodorizing and deep-frying oil
- Heat transfer systems and drying systems in food, beverage and pharmaceuticals
- General purpose lubrication
- Heating baths requiring non-toxic qualities to ensure worker's health

Available Packaging

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

Discover

the  exact advantage
www.exactspecialty.com

Exact™ Heat Transfer Oils

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Performance Benefits

Exact™ Heat Transfer Oils provide the following benefits:

- Odourless and non-toxic
- Elastomer and seal material compatibility
- Resists oxidative breakdown to provide sludge-free systems, extended fluid life, and decreased downtime
- Provide a safeguard against rust and corrosion in most environments
- Protects your equipment and metal parts with anti-wear technology for use in tough operating conditions
- Low carbon build-up on parts
- Formulated to operate in wet or dry food processing environments
- Thermally stable fluid providing efficiency for extend periods
- Low evaporation rate

Technically Speaking

Heat Transfer Oils		
ISO Viscosity Grade	38	100
NSF Registration Number	136874	139795
Viscosity, cSt @ 40°C	38.0	100.0
Viscosity, cSt @ 100°C	6.0	11.0
Viscosity, SUS @ 100°F	180	475.0
Viscosity, SUS @ 210°F	45.0	63.0
Viscosity Index	100	93.8
Flash Point, °C (COC)	> 200.0	> 200.0
Flash Point, °F (COC)	> 392.0	> 392.0
Pour Point, °C/°F	-18/0	-18/0
Rust, Dist. Water	Pass	Pass
Specific Gravity, g/ml	0.850	0.870
Density, lbs./US Gal	7.093	7.260

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

Exact™ Heat Transfer Oils – Material Safety Data Sheet (MSDS)

SECTION 1: Product Information and Company Identification

Common Name	Exact™ Heat Transfer Oils
Product Code	E2505, E2506
Material Use	Food Grade Heat Transfer Oils
Manufacturer	Commonwealth Oil Corporation 2080 Ferriss Rd. N., Harrow ON. N0R 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, %
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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

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

SECTION 3: Hazards Information

Chemical Family	▪ Petroleum Hydrocarbon
Physical State	▪ Liquid
Emergency Overview	▪ No specific hazard
	▪ Use with care
	▪ Follow good industrial hygiene practices
Routes of Entry	▪ Dermal and eye contact, inhalation, ingestion
Potential Acute and Chronic Health Effects	▪ None known. No carcinogenic, mutagenic or teratogenic effects known.
Medical Conditions Aggravated By Overexposure	▪ Repeated or prolonged exposure is not known to aggravate medical conditions.
Overexposure Signs and Symptoms	▪ Not available

- See SECTION 11 for Toxicological Data

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 30 minutes. Cold water may be used. Get medical attention should irritation occurs.
Skin Contact	▪ Remove any contaminated clothing. Wash with soap and water. Get medical attention should irritation occurs.
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. Should large amounts be swallowed, call a physician immediately.
Note to Physician	▪ Not available

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SECTION 5: Fire Fighting Measures

Flammability	<ul style="list-style-type: none">▪ Low hazard – combustible or burns at temperatures above flash point
Auto-Ignition Temperature	<ul style="list-style-type: none">▪ 354°C (670°F)
Flash Point (COC)	<ul style="list-style-type: none">▪ > 200°C (> 392°F)
Flammable Limits	<ul style="list-style-type: none">▪ Not established
Hazardous Combustion Products	<ul style="list-style-type: none">▪ Products are smoke, carbon monoxide and carbon dioxide
Fire Hazard in Presence of Various Substances	<ul style="list-style-type: none">▪ Flammable in presence of open flames, spark, static discharge and at or above flash point
Explosion Hazard in Presence of Various Substances	<ul style="list-style-type: none">▪ Risk in Presence of Mechanical Impact: Not available▪ Risk in Presence of Static Discharge: Not available
Fire Fighting Media and Instructions	<ul style="list-style-type: none">▪ Small Fire: Use dry chemical powder▪ Large Fire: Use water spray, fog, or foam. Do not use water jet.
Protective Clothing (Fire)	<ul style="list-style-type: none">▪ 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
Special Remarks on Fire Hazards	<ul style="list-style-type: none">▪ Container explosion may occur under fire conditions or when heated. Cool closed containers exposed to fire

SECTION 6: Accidental Release Measures

Small Spill and Leak	<ul style="list-style-type: none">▪ Absorb with an inert material and put spilled material into appropriate waste disposal
Large Spill and Leak	<ul style="list-style-type: none">▪ 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

- See SECTION 8 for Personal Protective Equipment and SECTION 13 for Waste Disposal

SECTION 7: Handling and Storage

Handling	<ul style="list-style-type: none">▪ Avoid breathing vapors or spray mists▪ Avoid contact with eyes, skin and clothing▪ Always wash your hands after handling
Storage	<ul style="list-style-type: none">▪ Use with adequate ventilation▪ Proper grounding procedures should be used as static charge may accumulate▪ 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

Personal Protection

Eyes	▪ Safety glasses or goggles
Body	▪ Lab coat or suitable protective clothing
Respiratory	▪ Not required under normal and intended usage conditions
Hands	▪ Chemical resistant or oil impervious gloves
Feet	▪ Shoes (as required by work place)
Protection for Large Spills	▪ Splash goggles, full suit, vapour respirator, boots, chemical resistant gloves
	▪ Self Contained Breathing Apparatus (SCBA) should be used to avoid inhalation of product

Engineering Controls

- Good general 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): 5 mg/m³

Oil Mist – Severely Refined

- TLV-TWA: 5 mg/m³
- Form: Mist

Consult your local authorities for your acceptable exposure limits

SECTION 9: Physical and Chemical Properties

Physical State	▪ Liquid
Appearance and Colour	▪ Clear, colourless solution
Odour	▪ Mild Petroleum
pH	▪ N/A
Flash Point (COC)	▪ > 200°C (> 392°F)
Boiling/Condensation Point	▪ Not Established
Pour Point	▪ -18°C (0°F)
Freezing Point	▪ Not Established
Specific Gravity	▪ 0.85 - 0.87 g/mL (Water = 1g/mL)
Density	▪ 7.093 - 7.260 lbs./US Gal
Vapor Pressure	▪ < 1 mm Hg @ 20°C (68°F)
Vapor Density	▪ > 1 (Air = 1)
% Volatility, by volume	▪ Not available
Evaporation Rate	▪ Negligible
VOC	▪ N/A
Viscosity (cSt @ 40°C)	▪ 38, 100 (typical)
Solubility in Water	▪ Not soluble

Exact™ Heat Transfer Oils – Material Safety Data Sheet (MSDS)

SECTION 10: Stability and Reactivity

Stability and Reactivity	▪ Product is 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
Conditions of Instability	▪ Extended exposure to high temperatures can cause decomposition
Hazardous Polymerization	▪ Will not occur

SECTION 11: Toxicological Information

Toxicity Data

Ingredient Name

Hydrotreated Distillate, Heavy Paraffin C20 -50 (CAS# 64742-54-7)

- **Carcinogenicity: The IARC has concluded that severely hydro-treated mineral oils are not carcinogenic. This product meets the OSHA guidance for severe hydro-treating.**

Hydrotreated Distillate, Light Paraffin C15 -30 (CAS# 64742-55-8)

Carcinogenicity: The IARC has concluded that severely hydro-treated mineral oils are not carcinogenic. This product meets the OSHA guidance for severe hydro-treating.

Target Organ (s): Administration of certain mineral hydrocarbon white oils in the diet to Fischer 344 rats at 1500 mg/kg/day for 90 days resulted in the formation of micro-granulomas in the liver. However this response was not observed in the studies conducted with other rat strains or dogs.

Microgranulomas like those observed in the Fischer 344 rats have not been found in humans.

SECTION 12: Ecological Information

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

SECTION 13: Disposal Considerations

- Wastes should be disposed of in accordance to local, federal and state environmental control regulations
- Incinerate waste materials whenever possible.

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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 products 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

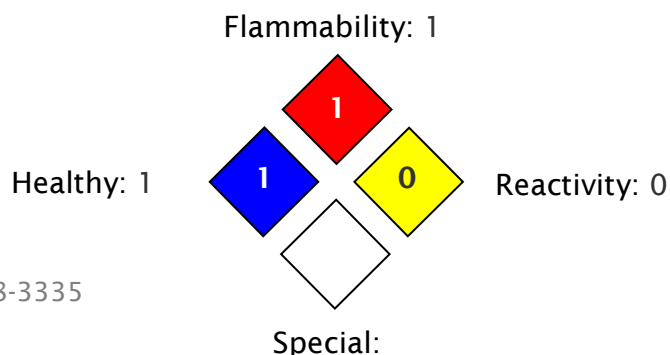
United States: State Regulations

- California Prop. 65: No products found

Canada: WHMIS

- Not controlled under WHMIS (Canada)
- 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*."

Mexico: Classification



Exact™ Heat Transfer Oils – Material Safety Data Sheet (MSDS)

SECTION 16: Other Information

Label Requirements

- “Use with care”
- “Use as directed”

Hazardous Material Information System (USA) (HMIS):

Health	1
Fire Hazard	1
Reactivity	0
Personal Protection	B

National Fire Protection Association (USA) (NFPA):

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Note 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 or 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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