

Material Safety Data Sheet



1. Chemical product and company identification

Product name	Castrol Heat Transfer Oil 1590
MSDS #	460813
Code	460813-US06
Product use	Heat transfer fluid. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Manufacturer	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200 Telecopier: (973) 633-7475
EMERGENCY HEALTH INFORMATION:	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)
EMERGENCY SPILL INFORMATION:	1 (800) 424-9300 CHEMTREC (USA)
OTHER PRODUCT INFORMATION	1 (866) 4 BP - MSDS (866-427-6737 Toll Free - North America) email: bpcares@bp.com

2. Composition/information on ingredients

Ingredient name	CAS #	% by weight
Base oil - highly refined	64742-54-7	95 - 100
Base oil - highly refined	proprietary	1 - 5

3. Hazards identification

Physical state	Liquid.
Color	Amber.
Emergency overview	CAUTION! MAY CAUSE EYE IRRITATION. MAY CAUSE SKIN IRRITATION. MAY CAUSE RESPIRATORY TRACT IRRITATION. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Routes of entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Potential health effects	
Eyes	May cause eye irritation.
Skin	May cause skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.
Inhalation	May cause respiratory tract irritation.
Ingestion	Ingestion may cause gastrointestinal irritation and diarrhea.

Product name Castrol Heat Transfer Oil 1590	Product code 460813-US06	Page: 1/5
Version 1	Date of issue 10/02/2006.	Format US
		Language ENGLISH. (ENGLISH)
	Build 4.2.8	

Medical conditions aggravated by over-exposure

None identified.

See toxicological Information (section 11).

4. First aid measures

Eye contact	Cold product - Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists. Hot product - Flood with water to dissipate heat. In the event of any product remaining, do not try to remove it other than by continued irrigation with water. Obtain medical attention immediately.
Skin contact	Cold Product - Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable. Hot Product - Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain medical advice immediately.
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 person. Get medical attention if symptoms appear. If large quantities of this material are swallowed, call a physician immediately.

5. Fire-fighting measures

Flammability of the product	May be combustible at high temperature.
Flash point	204 °C (Open cup) Cleveland.
Products of combustion	These products are carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide), sulfur oxides (SO ₂ , SO ₃ etc.). Some metallic oxides.
Unusual fire/explosion hazards	This material is not explosive as defined by established regulatory criteria.
Fire-fighting media and instructions	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide. Do not use water jet.
Protective clothing (fire)	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

6. Accidental release measures

Personal precautions	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (See Section: "Exposure controls/personal protection"). Follow all fire fighting procedures (See Section: "Fire-fighting measures").
Environmental precautions and clean-up methods	If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal. Avoid contact of spilled material with soil and prevent runoff entering surface waterways. See Section 13 for Waste Disposal Information.
Personal protection in case of a large spill	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

7. Handling and storage

Handling	Avoid contact with skin and clothing. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Use only with adequate ventilation. Avoid breathing vapor or mist. Wash thoroughly after handling.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area. Empty containers may contain harmful, flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld, reuse or dispose of containers unless adequate precautions are taken against these hazards.

Product name Castrol Heat Transfer Oil 1590

Product code 460813-US06

Page: 2/5

Version 1 **Date of issue** 10/02/2006.

Format US

Language ENGLISH.

Build 4.2.8

(ENGLISH)

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name

Base oil - highly refined

Occupational exposure limits

ACGIH (United States).

STEL: 10 mg/m³ 15 minute(s). Form: Oil mist, mineral

TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral

OSHA (United States).

TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral

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OSHA (United States).

TWA: 5 mg/m³ 8 hour(s). Form: Oil mist, mineral

Control Measures

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the work-station location.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protection

Eyes

Avoid contact with eyes. Chemical splash goggles.

Skin and body

Avoid contact with skin and clothing. Wear suitable protective clothing.

Respiratory

Use only with adequate ventilation. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.

Hands

Wear gloves that cannot be penetrated by chemicals or oil.

Recommended: nitrile gloves

The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Consult your supervisor or S.O.P. for special handling directions

Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state

Liquid.

Odor

Petroleum

Color

Amber.

Heat of combustion

Not available.

Pour Point

-23 °C

Density

870 kg/m³ (0.87 g/cm³) at 15°C

Solubility

insoluble in water.

Viscosity

Kinematic: 46 mm²/s (46 cSt) at 40°C

Kinematic: 7 mm²/s (7 cSt) at 100°C

Viscosity Index

100

Product name Castrol Heat Transfer Oil 1590

Product code 460813-US06

Page: 3/5

Version 1 **Date of issue** 10/02/2006.

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(ENGLISH)

10. Stability and reactivity

Stability and reactivity	The product is stable.
Conditions to avoid	Keep away from heat, sparks and flame.
Incompatibility with various substances	Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	Products of combustion: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide), sulfur oxides (SO ₂ , SO ₃ etc.). Some metallic oxides.
Hazardous polymerization	Will not occur.

11. Toxicological information

Chronic toxicity

Carcinogenic effects	No component of this product at levels greater than 0.1% is identified as a carcinogen by ACGIH or the International Agency for Research on Cancer (IARC). No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program (NTP) or the U.S. Occupational Safety and Health Act (OSHA).
Mutagenic effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
Reproductive effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a reproductive toxin.
Teratogenic effects	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

12. Ecological information

Ecotoxicity	No testing has been performed by the manufacturer.
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13. Disposal considerations

Waste information	Avoid contact of spilled material and runoff with soil and surface waterways. Consult an environmental professional to determine if local, regional or national regulations would classify spilled or contaminated materials as hazardous waste. Use only approved transporters, recyclers, treatment, storage or disposal facilities. Dispose of in accordance with all applicable local and national regulations.
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Consult your local or regional authorities.

14. Transport information

Not classified as hazardous for transport (DOT, TDG, IMO/IMDG, IATA/ICAO)

15. Regulatory information

U.S. Federal regulations	US INVENTORY (TSCA): In compliance. This product is not regulated under Section 302 of SARA and 40 CFR Part 355. SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Castrol Heat Transfer Oil 1590: Immediate (Acute) Health Hazard
SARA 313	
Form R - Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds.

Product name Castrol Heat Transfer Oil 1590	Product code 460813-US06	Page: 4/5
Version 1	Date of issue 10/02/2006.	Format US
	Build 4.2.8	Language ENGLISH. (ENGLISH)

Supplier notification

This product does not contain any hazardous ingredients at or above regulated thresholds.

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: Cadmium: 10 lbs. (4.536 kg); Arsenic: 1 lbs. (0.4536 kg); lead: 10 lbs. (4.536 kg);

State regulations

No products were found.

WARNING: This product contains a chemical known to the State of California to cause cancer. Arsenic

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm. Cadmium; lead

Inventories

AUSTRALIAN INVENTORY (AICS): In compliance.

CANADA INVENTORY (DSL): In compliance.

CHINA INVENTORY (IECS): In compliance.

EC INVENTORY (EINECS/ELINCS): In compliance.

JAPAN INVENTORY (ENCS): In compliance.

KOREA INVENTORY (ECL): In compliance.

PHILIPPINE INVENTORY (PICCS): In compliance.

16. Other information

Label requirements

CAUTION!

MAY CAUSE EYE IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

HMIS® Rating :

Health 1 -
Flammability 1
Physical Hazard 0
Personal protection X

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



History

Date of issue

10/02/2006.

Date of previous issue

No Previous Validation.

Prepared by

Product Stewardship

Notice to reader

NOTICE : This Material Safety Data Sheet is based upon data considered to be accurate at the time of its preparation. Despite our efforts, it may not be up to date or applicable to the circumstances of any particular case. We are not responsible for any damage or injury resulting from abnormal use, from any failure to follow appropriate practices or from hazards inherent in the nature of the product.

Product name Castrol Heat Transfer Oil 1590	Product code 460813-US06	Page: 5/5
Version 1	Date of issue 10/02/2006.	Format US
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