



## 1. Chemical product and company identification

<b>Product name</b>	Castrol Syntec Blend 20W-50
<b>MSDS #</b>	460920
<b>Code</b>	460920-US12, US13
<b>Product use</b>	Engine oils. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
<b>Manufacturer</b>	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: (973) 633-2200 Telecopier: (973) 633-7475
<b>EMERGENCY HEALTH INFORMATION:</b>	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)
<b>EMERGENCY SPILL INFORMATION:</b>	1 (800) 424-9300 CHEMTREC (USA)
<b>OTHER PRODUCT INFORMATION</b>	1 (866) 4 BP - MSDS (866-427-6737 Toll Free - North America) email: bpcares@bp.com

## 2. Composition/information on ingredients

Ingredient name	CAS #	%
Base oil - highly refined	Mixture	0 - 100
Zinc alkyl dithiophosphate	68649-42-3	1 - 5

## 3. Hazards identification

<b>Physical state</b>	Liquid.
<b>Color</b>	Not available.
<b>Emergency overview</b>	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, cracking and/or dermatitis.
<b>Routes of entry</b>	Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential health effects</b>	
<b>Eyes</b>	May cause eye irritation.
<b>Skin</b>	May cause skin irritation. Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis. Used engine oil may contain hazardous components which have the potential to cause skin cancer.
<b>Inhalation</b>	May cause respiratory tract irritation.
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation and diarrhea.

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**Medical conditions aggravated by over-exposure**

None identified.

See toxicological information (section 11).

## 4. First aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
<b>Skin contact</b>	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention if irritation develops.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
<b>Ingestion</b>	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

<b>Flammability of the product</b>	May be combustible at high temperature.
<b>Flash point</b>	>200 °C (Open cup)
<b>Products of combustion</b>	carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO <sub>2</sub> etc.) sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> etc.) phosphorus oxides metal oxide/oxides
<b>Unusual fire/explosion hazards</b>	Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts.
<b>Fire-fighting media and instructions</b>	In case of fire, use water fog, foam, dry chemicals, or carbon dioxide. Do not use water jet.
<b>Protective clothing (fire)</b>	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## 6. Accidental release measures

<b>Personal precautions</b>	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").
<b>Environmental precautions and clean-up methods</b>	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.
<b>Personal protection in case of a large spill</b>	Chemical splash goggles. Chemical resistant protective suit. Boots. Chemical resistant gloves. Vapor respirator or a self-contained breathing apparatus. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.  CAUTION: The protection provided by air-purifying respirators is limited. Use a positive pressure air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are not known, or if concentrations exceed the protection limits of air-purifying respirator.

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## 7. Handling and storage

<b>Handling</b>	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.
<b>Storage</b>	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.

## 8. Exposure controls/personal protection

### Occupational exposure limits

<b>Ingredient name</b>	<b>Occupational exposure limits</b>
Base oil - highly refined	<b>ACGIH (United States).</b> STEL: 10 mg/m <sup>3</sup> 15 minute(s). Form: Oil mist, mineral TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Oil mist, mineral <b>OSHA (United States).</b> TWA: 5 mg/m <sup>3</sup> 8 hour(s). Form: Oil mist, mineral
Zinc alkyl dithiophosphate	None assigned.

Some states may enforce more stringent exposure limits.

**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

<b>Eyes</b>	Avoid contact with eyes. Chemical splash goggles.
<b>Skin and body</b>	Avoid contact with skin and clothing. Wear suitable protective clothing.
<b>Respiratory</b>	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.
<b>Hands</b>	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

<b>Physical state</b>	Liquid.
<b>Heat of combustion</b>	Not available.
<b>Pour Point</b>	-30 to -24 °C
<b>Specific gravity</b>	0.875 to 0.887
<b>Solubility</b>	insoluble in water.
<b>Viscosity</b>	Kinematic: 19.97 to 20.81 mm <sup>2</sup> /s (19.97 to 20.81 cSt) at 100°C

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## 10. Stability and reactivity

<b>Stability and reactivity</b>	The product is stable.
<b>Conditions to avoid</b>	Not available.
<b>Incompatibility with various substances</b>	Reactive or incompatible with the following materials: oxidizing materials.
<b>Hazardous decomposition products</b>	carbon oxides (CO, CO <sub>2</sub> ) (carbon monoxide, carbon dioxide) nitrogen oxides (NO, NO <sub>2</sub> etc.) sulfur oxides (SO <sub>2</sub> , SO <sub>3</sub> etc.) phosphorus oxides metal oxide/oxides
<b>Hazardous polymerization</b>	Will not occur.

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## 11. Toxicological information

<b>Acute toxicity</b>	USED ENGINE OILS Combustion products resulting from the operation of internal combustion engines contaminate engine oils during use. Used engine oil may contain hazardous components which have the potential to cause skin cancer. Frequent or prolonged contact with all types and makes of used engine oil must therefore be avoided and a high standard of personal hygiene maintained.
<b>Chronic toxicity</b>	
<b>Carcinogenic effects</b>	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).
<b>Mutagenic effects</b>	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as a mutagen.
<b>Reproductive effects</b>	No component of this product at levels greater than or equal to 0.1% is classified by established regulatory criteria as a reproductive toxin.
<b>Teratogenic effects</b>	No component of this product at levels greater than 0.1% is classified by established regulatory criteria as teratogenic or embryotoxic.

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## 12. Ecological information

### Ecotoxicity

No testing has been performed by the manufacturer.

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## 13. Disposal considerations

<b>Waste information</b>	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.**

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## 14. Transport information

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

## 15. Regulatory information

### U.S. Federal regulations

**United States inventory (TSCA 8b):** All components are listed or exempted.

TSCA 12(b) one-time export notification:: Diphenylamine

TSCA 12(b) annual export notification: Alkylated phenol (P-00-346); lead

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 Syntec Blend 20W-50: Immediate (Acute) Health Hazard

### SARA 313

	Product name	CAS number	Concentration
Form R - Reporting requirements	Zinc alkyl dithiophosphate	68649-42-3	0 - 1.4328
Supplier notification	Zinc alkyl dithiophosphate	68649-42-3	0 - 1.4328

CERCLA Sections 102a/103 Hazardous Substances (40 CFR Part 302.4):: Zinc alkyl dithiophosphate: 1 lbs. (0.4536 kg); Arsenic: 1 lbs. (0.4536 kg); Cadmium: 10 lbs. (4.536 kg); lead: 10 lbs. (4.536 kg); phosphorodithioc acid, O,O - di- C1-14- alkyl esters zinc salts ; phosphorodithioc acid, O,O - di- C1-14- alkyl esters zinc salts ;

### State regulations

#### Massachusetts Substances

**Massachusetts RTK:** The following components are listed: MINERAL OIL, PETROLEUM DISTILLATES, HYDROTREATED LIGHT PARAFFINIC

#### New Jersey Hazardous Substances

**New Jersey Hazardous Substances:** The following components are listed: Calcium long chain alkaryl sulphonate;ZINC compounds

#### Pennsylvania RTK Hazardous Substances

**Pennsylvania RTK:** The following components are listed: ZINC COMPOUNDS

**WARNING:** This product contains a chemical known to the State of California to cause cancer. Paraffin oils, .; 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

**Canada inventory:** All components are listed or exempted.

**Europe inventory:** At least one component is not listed in EINECS but all such components are listed in ELINCS.

**Australia inventory (AICS):** All components are listed or exempted.

**China inventory (IECSC):** All components are listed or exempted.

**Japan inventory (ENCS):** At least one component is not listed.

**Korea inventory (KECI):** All components are listed or exempted.

**Philippines inventory (PICCS):** At least one component is not listed.

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## 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

06/13/2007.

#### 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.*

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