



1. Chemical product and company identification

Product name CASTROL BLUE HYDRAULIC PLUS 46
MSDS # 460111
Code 460111-US06
Product use Hydraulic 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

3. Hazards identification

Physical state Liquid.
Color Clear. Blue.
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. High pressure skin injections are serious medical emergencies. Injury will not appear serious at first; within a few hours, tissue will become swollen, discolored and extremely painful.
Inhalation May cause respiratory tract irritation.
Ingestion 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

Eye contact	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin contact	Immediately wash exposed skin with soap and water. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Accidental high pressure injection through the skin requires immediate medical attention.
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. 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	215 °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 prolonged or repeated contact with skin. Avoid contact with eyes. Use only with adequate ventilation. Wash thoroughly after handling. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.
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.

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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

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 suitable gloves.

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

Oily (Slight.)

Color

Clear. Blue.

Heat of combustion

Not available.

Pour Point

-26 °C

Specific gravity

0.863

Solubility

insoluble in water.

Viscosity

Kinematic: 46.65 mm²/s (46.65 cSt) at 40°C

Kinematic: 6.8 mm²/s (6.8 cSt) at 100°C

SUS: 215 SUS at 38°C

Viscosity Index

103

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 and reducing materials.

Hazardous decomposition products

Products of combustion: carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide), sulfur oxides (SO₂, SO₃ etc.), some metallic oxides.

Hazardous polymerization

Will not occur.

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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.

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.

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 BLUE HYDRAULIC PLUS 46: Immediate (Acute) Health Hazard
SARA 313	
Form R - Reporting requirements	This product does not contain any hazardous ingredients at or above regulated thresholds.
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):: Zinc dialkyl dithiophosphate; Ethyl acrylate: 1000 lbs. (453.6 kg); xylene: 100 lbs. (45.36 kg); Ethylbenzene: 1000 lbs. (453.6 kg);
State regulations	No products were found. WARNING: This product contains a chemical known to the State of California to cause cancer. Ethylbenzene; Ethyl acrylate

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