

## Section 1. Identification

**Product name** Blue Hydraulic Plus 46  
**SDS #** 460111  
**Code** 460111-US03

### Relevant identified uses of the substance or mixture and uses advised against

**Product use** Hydraulic fluid.  
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

**Supplier** BP Lubricants USA Inc.  
1500 Valley Road  
Wayne, NJ 07470  
Telephone: +1-888-CASTROL

**EMERGENCY HEALTH INFORMATION:** +1-800-447-8735

**EMERGENCY SPILL INFORMATION:** +1-800-424-9300 (CHEMTREC USA)  
+1-703-527-3887 (CHEMTREC outside the US)

## Section 2. Hazards identification

**OSHA/HCS status** This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture** Not classified.

### GHS label elements

**Signal word** No signal word.

**Hazard statements** No known significant effects or critical hazards.

### Precautionary statements

**Prevention** Not applicable.

**Response** Not applicable.

**Storage** Not applicable.

**Disposal** Not applicable.

**Hazards not otherwise classified** Defatting to the skin.  
Note: High Pressure Applications  
Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency.  
See 'Notes to physician' under First-Aid Measures, Section 4 of this Safety Data Sheet.

## Section 3. Composition/information on ingredients

**Substance/mixture** Mixture  
Highly refined base oil (IP 346 DMSO extract < 3%). Proprietary performance additives.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥90	CAS: 64742-54-7

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## Section 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### Description of necessary first aid measures

<b>Eye contact</b>	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Check for and remove any contact lenses. Get medical attention.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognized skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training.

### Most important symptoms/effects, acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	Treatment should in general be symptomatic and directed to relieving any effects.  Note: High Pressure Applications Injections through the skin resulting from contact with the product at high pressure constitute a major medical emergency. Injuries may not appear serious at first but within a few hours tissue becomes swollen, discolored and extremely painful with extensive subcutaneous necrosis. Surgical exploration should be undertaken without delay. Thorough and extensive debridement of the wound and underlying tissue is necessary to minimize tissue loss and prevent or limit permanent damage. Note that high pressure may force the product considerable distances along tissue planes.
<b>Specific treatments</b>	No specific treatment.

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.

**Unsuitable extinguishing media** Do not use water jet.

**Specific hazards arising from the chemical** In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous combustion products** Combustion products may include the following:  
carbon oxides (CO, CO<sub>2</sub>) (carbon monoxide, carbon dioxide)

**Special protective actions for fire-fighters** No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

**Special protective equipment for fire-fighters** Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

#### For emergency responders

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

#### Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

#### Small spill

Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### Large spill

Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### Precautions for safe handling

#### Protective measures

Put on appropriate personal protective equipment (see Section 8).

#### Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. Contaminated work clothing should not be allowed out of the workplace. See also Section 8 for additional information on hygiene measures.

#### Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Store and use only in equipment/containers designed for use with this product. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

#### Not suitable

Prolonged exposure to elevated temperature

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

<u>Ingredient name</u>	<u>Exposure limits</u>
Distillates (petroleum), hydrotreated heavy paraffinic	<b>OSHA PEL (United States) [Oil mist, mineral]</b> TWA 8 hours: 5 mg/m <sup>3</sup> . Issued/Revised: 6/1993. <b>ACGIH TLV (United States) [Mineral Oil, pure, highly and severely refined] A4.</b> TWA 8 hours: 5 mg/m <sup>3</sup> . Form: Inhalable fraction. Issued/Revised: 11/2009.

While specific OELs for certain components may be shown in this section, other components may be present in any mist, vapor or dust produced. Therefore, the specific OELs may not be applicable to the product as a whole and are provided for guidance only.

#### Biological exposure indices

## Section 8. Exposure controls/personal protection

No exposure indices known.

### Appropriate engineering controls

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and appropriate standards. For further information contact your national organisation for standards.

Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits.

The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible.

### Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### Eye/face protection

Safety glasses with side shields.

#### Skin protection

##### Hand protection

Wear protective gloves if prolonged or repeated contact is likely. Wear chemical resistant gloves. 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.

##### Body protection

Use of protective clothing is good industrial practice.

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

##### Other skin protection

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

##### Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. Safety procedures should be developed for each intended application. Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

**Physical state** Liquid.

**Color** Blue.

**Odor** Not available.

**Odor threshold** Not available.

**pH** Not applicable.

**Melting point/freezing point** Not available.

**Boiling point or initial boiling point and boiling range** Not available.

**Flash point**  Open cup: >185°C (>365°F) [Cleveland ASTM D 92]


**Pour point** -36 °C

**Evaporation rate** Not available.

**Flammability** Not available.

**Lower and upper explosion limit/flammability limit** Not available.

**Vapor pressure**

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
 Stillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			

**Relative vapor density** Not available.

**Density** <1000 kg/m<sup>3</sup> (<1 g/cm<sup>3</sup>) at 15°C


**Solubility(ies)**

Media	Result
water	Not soluble

**Partition coefficient: n-octanol/water** Not applicable.

**Auto-ignition temperature** Not available.

**Decomposition temperature** Not available.

**Viscosity**  Kinematic: 45.9 mm<sup>2</sup>/s (45.9 cSt) at 40°C  
Kinematic: 6.88 mm<sup>2</sup>/s (6.88 cSt) at 100°C (ASTM D 445)

### Particle characteristics

**Median particle size** Not applicable.

## Section 10. Stability and reactivity

**Reactivity** No specific test data available for this product. Refer to Conditions to avoid and Incompatible materials for additional information.

**Chemical stability** The product is stable.

**Possibility of hazardous reactions** Under normal conditions of storage and use, hazardous reactions will not occur.  
Under normal conditions of storage and use, hazardous polymerization will not occur.

**Conditions to avoid** Avoid all possible sources of ignition (spark or flame).

**Incompatible materials** Reactive or incompatible with the following materials: oxidizing materials.

## Section 10. Stability and reactivity

### Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

##### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

##### Result

###### Rat - Oral - LD50

>5000 mg/kg  
OECD 401

###### Rabbit - Dermal - LD50

>5000 mg/kg  
OECD 402

###### Rat - Inhalation - LC50 Dusts and mists

>5 mg/l [4 hours]  
OECD 403

#### Skin corrosion/irritation

##### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

##### Result

###### Rabbit - Skin - Mild irritant

OECD 404

#### Serious eye damage/eye irritation

##### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

##### Result

###### Rabbit - Eyes - Non-irritating to the eyes.

OECD 405

#### Respiratory corrosion/irritation

Not available.

#### Respiratory or skin sensitization

##### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

##### Result

###### Guinea pig - skin

OECD 406

Result: Not sensitizing

#### Germ cell mutagenicity

##### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

##### Result

###### In vitro - Bacteria

Bacterial Reverse Mutation Test

Result: Negative

###### In vitro - Mammal - species unspecified

In vitro Mammalian Chromosomal Aberration Test

Result: Negative

###### In vivo - Mammal - species unspecified

Mammalian Erythrocyte Micronucleus Test

Result: Negative

###### In vitro - Mammal - species unspecified

In vitro Mammalian Cell Gene Mutation Test

## Section 11. Toxicological information

Result: Negative

### Carcinogenicity

#### **Product/ingredient name**

Distillates (petroleum), hydrotreated heavy paraffinic

#### **Result**

**Mouse - Dermal - Unspecified**

OECD 451

Result: Negative

Not available.

### Reproductive toxicity

#### **Product/ingredient name**

Distillates (petroleum), hydrotreated heavy paraffinic

#### **Result**

**Rat - Oral**

OECD 421

Maternal toxicity: Negative

Fertility effects: Negative

Developmental: Negative

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

#### **Eye contact**

No known significant effects or critical hazards.

#### **Inhalation**

Vapor inhalation under ambient conditions is not normally a problem due to low vapor pressure.

#### **Skin contact**

No known significant effects or critical hazards.

#### **Ingestion**

No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

#### **Eye contact**

No specific data.

#### **Inhalation**

No specific data.

#### **Skin contact**

Adverse symptoms may include the following:  
irritation  
dryness  
cracking

#### **Ingestion**

No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### **Short term exposure**

## Section 11. Toxicological information

Potential immediate effects	Not available.
Potential delayed effects	Not available.
Long term exposure	
Potential immediate effects	Not available.
Potential delayed effects	Not available.

### Potential chronic health effects

Not available.

**Conclusion/Summary [Product]** Not available.

General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

N/A

## Section 12. Ecological information

### Toxicity

No testing has been performed by the manufacturer.

#### Product/ingredient name

Distillates (petroleum), hydrotreated heavy paraffinic

#### Result

##### **Acute - EL50**

OECD 201  
Algae  
>100 mg/l [72 hours]

##### **Acute - EL50**

OECD 202  
Daphnia  
>10000 mg/l [48 hours]

##### **Acute - LL50**

OECD 203  
Fish  
>100 mg/l [96 hours]

##### **Chronic - NOEL**

OECD 201  
Algae  
≥100 mg/l [72 hours]

##### **Chronic - NOEL**

OECD 211  
Daphnia  
10 mg/l [21 days]

### Persistence and degradability

Expected to be biodegradable.

#### Product/ingredient name

#### Result

**Product name** Blue Hydraulic Plus 46

**Product code** 460111-US03

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**Version** 3 **Date of issue** 11/14/2025.

**Format** US

**Language** ENGLISH



## Section 12. Ecological information

Distillates (petroleum), hydrotreated heavy paraffinic

OECD 301F  
31% [28 days] - Not readily

### Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

### Mobility in soil

Soil/Water partition coefficient

Not available.

Mobility

Spillages may penetrate the soil causing ground water contamination.

### Other adverse effects

No known significant effects or critical hazards.

### Other ecological information

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

## Section 13. Disposal considerations

### Disposal methods

The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.
Additional information	-	-	-	-

### Special precautions for user

Not available.

### Transport in bulk according to IMO instruments

Not available.

## Section 15. Regulatory information

### U.S. Federal regulations

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

### TSCA 12(b) - Chemical export notification

Not applicable.

### SARA 302/304

#### Composition/information on ingredients

No products were found.

### SARA 311/312

**Classification** Not applicable.

### 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.

### State regulations

**Massachusetts** The following components are listed: OIL MIST, MINERAL

**New Jersey** None of the components are listed.

**Pennsylvania** None of the components are listed.

### **California Prop. 65**

**⚠ WARNING:** This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. This product can expose you to chemicals including Naphthalene, 2-ethylhexyl acrylate and Ethyl acrylate, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

### Other regulations

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

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

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

**Japan inventory (CSCL)** All components are listed or exempted.

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

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

**Taiwan Chemical Substances Inventory (TCSI)** All components are listed or exempted.

**REACH Status** For the REACH status of this product please consult your company contact, as identified in Section 1.

## Section 16. Other information

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



### History

**Date of issue/Date of revision** 11/14/2025.

**Date of previous issue** 12/19/2023.

**Prepared by** Product Stewardship

## Section 16. Other information

### Key to abbreviations

ACGIH = American Conference of Industrial Hygienists  
ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
CAS Number = Chemical Abstracts Service Registry Number  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
OEL = Occupational Exposure Limit  
SDS = Safety Data Sheet  
STEL = Short term exposure limit  
TWA = Time weighted average  
UN = United Nations  
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.  
Varies = may contain one or more of the following 64741-88-4, 64741-89-5, 64741-95-3, 64741-96-4, 64742-01-4, 64742-44-5, 64742-45-6, 64742-52-5, 64742-53-6, 64742-54-7, 64742-55-8, 64742-56-9, 64742-57-0, 64742-58-1, 64742-62-7, 64742-63-8, 64742-65-0, 64742-70-7, 72623-85-9, 72623-86-0, 72623-87-1

 Indicates information that has changed from previously issued version.

### Notice to reader

*All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.*

*The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from BP Group.*

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