

Section 1. Identification

Product name Performance Bio HE 32 TG
SDS # 469024
Code 469024-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.
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 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 considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture SKIN SENSITIZATION - Category 1
 TOXIC TO REPRODUCTION - Category 2

GHS label elements

Hazard pictograms



Signal word Warning

Hazard statements May cause an allergic skin reaction.
 Suspected of damaging fertility or the unborn child.

Precautionary statements

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Avoid breathing vapor. Contaminated work clothing must not be allowed out of the workplace.

Response IF exposed or concerned: Get medical attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical attention. Take off contaminated clothing and wash it before reuse.

Storage Store locked up.

Disposal Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazards not otherwise classified None known.

Section 2. Hazards identification

Hazards identified when used

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.

Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture

Mixture

Vegetable oil and additives

Ingredient name	%	CAS number
Canola oil	≥80	CAS: 120962-03-0
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	≥0.1 - ≤1	CAS: 68411-46-1
dihydro-3-(tetrapropenyl)furan-2,5-dione	≥0.1 - ≤1	CAS: 26544-38-7

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

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

Eye contact

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.

Skin contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Clean shoes thoroughly before reuse. In the event of any complaints or symptoms, avoid further exposure. Get medical attention. If skin irritation or rash occurs: Get medical attention.

Inhalation

If inhaled, remove to fresh air. 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 unconscious, place in recovery position and get medical attention immediately. Get medical attention.

Protection of first-aiders

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Notes to physician

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.

Specific treatments

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:
phosphorus oxides
carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)
sulfur oxides (SO, SO₂ etc.)

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 Contact 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. Avoid breathing vapor or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling.

For emergency responders Entry into a confined space or poorly ventilated area contaminated with vapor, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained breathing apparatus. Wear a suitable chemical protective suit. Chemical resistant boots. 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. Approach release from upwind. 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. Contaminated absorbent material may pose the same hazard as the spilled product. 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Section 7. Handling and storage

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. Store locked up. 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

Ingredient name	Exposure limits
Canola oil	OSHA PEL (United States) TWA 8 hours: 15 mg/m ³ . Form: Total dust (Vegetable oil Mist). Issued/Revised: 6/1993. TWA 8 hours: 5 mg/m ³ . Form: Respirable fraction (Vegetable oil Mist). Issued/Revised: 6/1993.
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene dihydro-3-(tetrapropenyl)furan-2,5-dione	None. None.

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

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. Contaminated work clothing should not be allowed out of the workplace. 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

Section 8. Exposure controls/personal 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

Yellow. [Light]

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

Closed cup: >200°C (>392°F) [Pensky-Martens ASTM D 93]
Open cup: >200°C (>392°F) [Cleveland ASTM D 92]

Pour point

-33 °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
O,O,O-Triphenyl phosphorothioate	0	0				

Relative vapor density

Not available.

Density

<1000 kg/m³ (<1 g/cm³) at 15.6°C

Solubility(ies)

Section 9. Physical and chemical properties

Media	Result
water	Not soluble

Partition coefficient: n-octanol/water Not applicable.

Auto-ignition temperature	Ingredient name	°C	°F	Method
	reaction mass of isomers of: C7-9-alkyl 3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate	365	689	

Decomposition temperature Not available.

Viscosity Kinematic: 36 mm²/s (36 cSt) at 40°C
Kinematic: 8.2 mm²/s (8.2 cSt) at 100°C (ASTM D 445)

VOC 0.46 g/l

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.

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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Result

Rat - Oral - LC50

>5000 mg/kg
OECD 401

Rat - Dermal - LC50

>2000 mg/kg
OECD 402

Skin corrosion/irritation

Product/ingredient name

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Result

Rabbit - Skin - Slightly irritating to the skin.

OECD 404

Serious eye damage/eye irritation

Product/ingredient name

Result

Section 11. Toxicological information

Benzenamine, N-phenyl-, reaction products
with 2,4,4-trimethylpentene

Rabbit - Eyes - Not irritant
OECD 405

Respiratory corrosion/irritation

Not available.

Respiratory or skin sensitization

Product/ingredient name

Benzenamine, N-phenyl-, reaction products
with 2,4,4-trimethylpentene

Result

Guinea pig - skin
OECD 406
Result: Not sensitizing

Germ cell mutagenicity

Product/ingredient name

Benzenamine, N-phenyl-, reaction products
with 2,4,4-trimethylpentene

Result

In vitro - Bacteria
OECD 471
Result: Negative
In vitro - Mammalian-Animal
OECD 487
Result: Negative
In vitro - Mammalian-Animal
OECD 476
Result: Negative

Carcinogenicity

Not available.

Reproductive toxicity

Product/ingredient name

Benzenamine, N-phenyl-, reaction products
with 2,4,4-trimethylpentene

Result

Rat - Oral
OECD 443
Maternal toxicity: Negative
Fertility effects: Positive
Developmental: Negative

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

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	May cause an allergic skin reaction.
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 redness dryness cracking reduced fetal weight increase in fetal deaths skeletal malformations
Ingestion	Adverse symptoms may include the following: reduced fetal weight increase in fetal deaths skeletal malformations

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

Short term exposure

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	Suspected of damaging fertility.

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

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Result

Acute - ErC50

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

Acute - EC50

OECD 202
Daphnia
51 mg/l [48 hours]

Acute - LC50

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

Chronic - EC10

OECD 211
Daphnia
1.69 mg/l [21 days]

Chronic - NOEC

OECD 201
Algae
≥10 mg/l [72 hours]

Persistence and degradability

Expected to be biodegradable.

Product/ingredient name

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene

Result

OECD 301B
1% [28 days]

Bioaccumulative potential

Not available.

Product/ingredient name	LogP _{ow}	BCF	Potential
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	5.1	-	High

Mobility in soil

Soil/Water partition coefficient

Not available.

Mobility

Liquid. insoluble in water.

Other adverse effects

No known significant effects or critical hazards.

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Section 13. Disposal considerations

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

SKIN SENSITIZATION - Category 1
TOXIC TO REPRODUCTION - Category 2

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: Canola oil

New Jersey

None of the components are listed.

Pennsylvania

The following components are listed: Canola oil

California Prop. 65

⚠ WARNING: This product can expose you to chemicals including Strong inorganic acid mists containing sulfuric acid, which is known to the State of California to cause cancer, and Methanol, 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.

Other regulations

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Australia inventory (AIIIC)	At least one component is not listed.
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)	Not determined.
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	02/03/2026.
Date of previous issue	04/17/2024.
Prepared by	Product Stewardship
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.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the

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material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken. You can contact the BP Group to ensure that this document is the most current available. Alteration of this document is strictly prohibited.