

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier Optigear BM 100
SDS # 450750
Code 450750-US03

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

Product use Gear lubricant
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: +1-888-CASTROL

Supplier PAN AMERICAN ENERGY S.L., SUCURSAL
ARGENTINA AV. LEANDRO N. ALEM 1180
PISO 11 – C1001AAT
CIUDAD AUTÓNOMA DE BUENOS AIRES.

Consultas Técnicas 0800-888-8088

EMERGENCY HEALTH INFORMATION: TELÉFONO PARA EMERGENCIAS (24 HORAS) CIQUIME: 0800-222-2933
+1-800-424-9300 (CHEMTREC USA)
+1-703-527-3887 (CHEMTREC outside the US)

EMERGENCY TELEPHONE NUMBER

SECTION 2: Hazards identification

Classification of the substance or mixture SKIN IRRITATION - Category 3
SKIN SENSITIZATION - Category 1
AQUATIC HAZARD (ACUTE) - Category 3
AQUATIC HAZARD (LONG-TERM) - Category 3

GHS label elements

Hazard pictograms



Signal word Warning

Hazard statements H316 - Causes mild skin irritation.
H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention P280 - Wear protective gloves.
P273 - Avoid release to the environment.
P261 - Avoid breathing vapor.
P272 - Contaminated work clothing should not be allowed out of the workplace.

Response P362 + P364 - Take off contaminated clothing and wash it before reuse.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.

SECTION 2: Hazards identification

Storage

Not applicable.

Disposal

P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Other hazards which do not result in classification

None known.

SECTION 3: Composition/information on ingredients

Substance/mixture

Mixture

Highly refined mineral oil and additives.

Other means of identification

Not available.

Ingredient name	%	CAS number
Distillates (petroleum), hydrotreated heavy paraffinic	≥75 - ≤90	64742-54-7
Distillates (petroleum), hydrotreated heavy paraffinic	≥10 - ≤25	64742-54-7
Residual oils (petroleum), solvent-dewaxed	≤3	64742-62-7
Zinc dialkyl dithiophosphate	≤2.4	68457-79-4
Sulfonic acids, petroleum, magnesium salts	≤3	61789-87-5
Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3)	≤1.9	-
maleic anhydride	≤0.1	108-31-6

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 or the environment 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 advice/attention.

Inhalation

If inhaled, remove to fresh air. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Get medical attention if symptoms occur.

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 if adverse health effects persist or are severe.

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.

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SECTION 4: First aid measures

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. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments

No specific treatment.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use foam or all-purpose dry chemical to extinguish.

Unsuitable extinguishing media

Do not use water jet.

Specific hazards arising from the chemical

Swarf fires - Neat metal working oils may fume, thermally decompose or ignite if they come into contact with red hot swarf. To minimise the generation of red hot swarf ensure that a sufficient flow of oil is correctly directed to the cutting edge of the tool to flood it throughout cutting operations. As an additional precaution swarf should be regularly cleared from the immediate area to prevent the risk of fire. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects.

Hazardous thermal decomposition products

Combustion products may include the following:
metal oxide/oxides
carbon oxides (CO, CO₂) (carbon monoxide, carbon dioxide)
nitrogen oxides (NO, NO₂ 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). Water polluting material. May be harmful to the environment if released in large quantities.

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SECTION 6: Accidental release measures

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. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. 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. Avoid contact of spilled material and runoff with soil and surface waterways. Concentrations of mist, fumes and vapors in enclosed spaces may result in the formation of explosive atmospheres. Excessive splashing, agitation or heating must be avoided. During metal working, solid particles from workpieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasions result in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible. The presence of certain metals in the workpiece or tool, such as chromium, cobalt and nickel, can contaminate the metalworking fluid, as can bacteria, and as a result may induce allergic and other skin reactions, especially if personal hygiene is inadequate.

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.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits

<u>Ingredient name</u>	<u>Exposure limits</u>
Distillates (petroleum), hydrotreated heavy paraffinic	Ministry of Labor, Employment and Social Security. Argentina (Resolution 295,11/2003) (Argentina). [Aceite mineral] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2003 Form: mist STEL: 10 mg/m ³ 15 minutes. Issued/Revised: 11/2003 Form: mist

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SECTION 8: Exposure controls/personal protection

Distillates (petroleum), hydrotreated heavy paraffinic

Ministry of Labor, Employment and Social Security. Argentina (Resolution 295,11/2003) (Argentina). [Aceite mineral]

TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2003 Form: mist

STEL: 10 mg/m³ 15 minutes. Issued/Revised: 11/2003 Form: mist

Residual oils (petroleum), solvent-dewaxed

Ministry of Labor, Employment and Social Security. Argentina (Resolution 295,11/2003) (Argentina). [Aceite mineral]

TWA: 5 mg/m³ 8 hours. Issued/Revised: 11/2003 Form: mist

STEL: 10 mg/m³ 15 minutes. Issued/Revised: 11/2003 Form: mist

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

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.

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SECTION 8: Exposure controls/personal protection

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. For protection against metal working fluids, respiratory protection that is classified as "resistant to oil" (class R) or oil proof (class P) should be selected where appropriate. Depending on the level of airborne contaminants, an air-purifying, half-mask respirator (with HEPA filter) including disposable (P- or R-series) (for oil mists less than 50mg/m³), or any powered, air-purifying respirator equipped with hood or helmet and HEPA filter (for oil mists less than 125 mg/m³). Where organic vapours are a potential hazard during metalworking operations, a combination particulate and organic vapour filter may be necessary. 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

Brown.

Odor

Not available.

Odor threshold

Not available.

pH

Not applicable.

Melting point/freezing point

Not available.

Boiling point, initial boiling point, and boiling range

Not available.

Flash point

Open cup: >200°C (>392°F) [Cleveland]

Pour point

-21 °C

Evaporation rate

Not available.

Flammability

Not applicable. Based on - Physical state

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

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SECTION 9: Physical and chemical properties

Distillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Residual oils (petroleum), solvent-dewaxed	<0.07501	<0.01	ASTM D 5191			
Zinc dialkyl dithiophosphate	0.000019	0.0000025	EU A.4	0.00017	0.000023	EU A.4

Relative vapor density

Not available.

Density

<1000 kg/m³ (<1 g/cm³) 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: 100 mm²/s (100 cSt) at 40°C
Kinematic: 6.8 mm²/s (6.8 cSt) at 100°C

VOC

3.5 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 excessive heat.

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	Test	Species	Result	Exposure	Remarks
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Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances.
	LD50 Oral	Rat	>5000 mg/kg	-	Based on studies with similar substances.
	LD50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances.
	LD50 Oral	Rat	>5000 mg/kg	-	Based on studies with similar substances.
	LD50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	Based on studies with similar substances.
Zinc dialkyl dithiophosphate	LD50 Dermal	Rat	>20000 mg/kg	-	-
	LD50 Oral	Rat	3600 mg/kg	-	-
Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3)	LD50 Dermal	Rat	>2000 mg/kg	-	-
	LD50 Oral	Rat	>2000 mg/kg	-	-
maleic anhydride	LD50 Dermal	Rabbit	2620 mg/kg	-	-
	LD50 Oral	Rat	1090 mg/kg	-	-

Conclusion/Summary Not available.

Irritation/Corrosion

Product/ingredient name	Species	Result	Score	Exposure	Observation	Conc.	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	Rabbit	Eyes - Non-irritating to the eyes.	-	-	-	-	Based on studies with similar substances.
	Rabbit	Skin - Mild irritant	-	-	-	-	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy	Rabbit	Eyes - Non-irritating to	-	-	-	-	Based on studies with

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paraffinic		the eyes.					similar substances.
	Rabbit	Skin - Mild irritant	-	-	-	-	Based on studies with similar substances.
Zinc dialkyl dithiophosphate	Rabbit	Eyes - Severe irritant	-	-	-	-	-
	Rabbit	Skin - Irritant	-	-	-	-	-
Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3)	Rabbit	Eyes - Redness of the conjunctivae	≥2	-	-	-	-
	Rabbit	Skin - Moderate irritant	-	-	-	-	-
maleic anhydride	Rabbit	Eyes - Corrosive	-	-	-	-	-
	Rabbit	Skin - Corrosive	-	-	-	-	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
Zinc dialkyl dithiophosphate	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3)	skin	Guinea pig	Sensitizing	-
maleic anhydride	Respiratory	Rat	Sensitizing	-
	skin	Mouse	Sensitizing	SCL >= 0.001% Cat 1A

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
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Distillates (petroleum), hydrotreated heavy paraffinic	471 Bacterial Reverse Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Bacteria		
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
Distillates (petroleum), hydrotreated heavy paraffinic	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
Distillates (petroleum), hydrotreated heavy paraffinic	471 Bacterial Reverse Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Bacteria		
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
Distillates (petroleum), hydrotreated heavy paraffinic	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified		
Zinc dialkyl dithiophosphate	471 Bacterial Reverse Mutation Test	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Bacteria		
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro	Negative	-
	Subject: Mammal - species unspecified			
Zinc dialkyl dithiophosphate	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo	Negative	Based on studies with similar substances.
		Subject: Mammal -		

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species unspecified

maleic anhydride	OECD 471	Experiment: In vitro Subject: Bacteria	Negative	-
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on studies with similar substances.
	OECD 475	Experiment: In vivo Subject: Mammalian-Animal	Negative	-

Conclusion/Summary Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Result	Exposure
<input checked="" type="checkbox"/> Zinc dialkyl dithiophosphate	Positive	Negative	Negative	Rat	Oral	-

Conclusion/Summary Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
<input checked="" type="checkbox"/> Zinc dialkyl dithiophosphate	Negative - Oral	Rat	-	-

Conclusion/Summary Not available.

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<input checked="" type="checkbox"/> maleic anhydride	Category 1	inhalation	respiratory system

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated heavy paraffinic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Routes of entry anticipated: Dermal, Inhalation, Eyes.

Potential acute health effects

Eye contact

No known significant effects or critical hazards.

Skin contact

Causes mild skin irritation. Defatting to the skin. May cause an allergic skin reaction.

Inhalation

Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Ingestion

Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

Adverse symptoms may include the following:
pain or irritation
watering
redness

Skin contact

Adverse symptoms may include the following:
irritation
redness
dryness
cracking

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Inhalation No specific data.

Ingestion No specific data.

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

General No known significant effects or critical hazards.

Carcinogenicity No known significant effects or critical hazards.

Mutagenicity No known significant effects or critical hazards.

Teratogenicity 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

Route	ATE value
Oral	178942.57 mg/kg

SECTION 12: Ecological information

Toxicity

Product/ingredient name	Species	Test/Result	Exposure	Effects	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	-
	Fish	Acute LL50 >100 mg/l	96 hours	-	-
	Algae	Chronic NOEL ≥100 mg/l	72 hours	-	Based on studies with similar substances.
	Daphnia	Chronic NOEL 10 mg/l	21 days	-	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	-
	Fish	Acute LL50 >100 mg/l	96 hours	-	-

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	Algae	Chronic NOEL ≥100 mg/l	72 hours	-	Based on data available for this or related materials.
	Daphnia	Chronic NOEL 10 mg/l	21 days	-	Based on studies with similar substances.
Zinc dialkyl dithiophosphate	Daphnia	Acute EL50 23 mg/l	48 hours	-	-
	Algae	Acute ErL50 24 mg/l	72 hours	-	-
	Fish	Acute LL50 4.5 mg/l	96 hours	-	-
	Algae	Chronic NOELR 10 mg/l	72 hours	-	-
Reaction product of ammonium molybdate and C12-C24-diethoxylated alkylamine (1:5-1:3)	Daphnia	Chronic EC50 6.8 mg/l	48 hours	-	-
maleic anhydride	Algae	Acute EC50 65.78 mg/l	72 hours	-	-
	Daphnia	Acute EC50 37.9 mg/l	48 hours	-	-
	Fish	Acute LC50 75 mg/l	72 hours	-	-
	Algae	Chronic EC10 10.4 mg/l	72 hours	-	-

Conclusion/Summary

Not available.

Environmental effects

This material is harmful to aquatic life with long lasting effects.

Persistence and degradability

Not expected to be rapidly degradable.

Product/ingredient name	Test	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	Based on studies with similar substances.
Zinc dialkyl dithiophosphate	OECD 301B	1.5 % - Not readily - 28 days	-
maleic anhydride	OECD 301B	>90 % - 25 days	Readily biodegradable

Conclusion/Summary

Not available.

Bioaccumulative potential

Not available.

SECTION 12: Ecological information

Mobility in soil

Soil/water partition coefficient (K_{oc})

Not available.

Mobility

Non-volatile. 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. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA/ICAO
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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

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SECTION 15: Regulatory information

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[Other regulations](#)

[Australia inventory \(AIC\)](#)

All components are listed or exempted.

[Canada inventory](#)

At least one component is not listed in DSL but all such components are listed in NDSL.

[China inventory \(IECSC\)](#)

All components are listed or exempted.

[Japan inventory \(CSCL\)](#)

At least one component is not listed.

[Korea inventory \(KECI\)](#)

At least one component is not listed.

[Philippines inventory \(PICCS\)](#)

At least one component is not listed.

[Taiwan Chemical Substances Inventory \(TCSI\)](#)

All components are listed or exempted.

[United States inventory \(TSCA 8b\)](#)

All components are active 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

[History](#)

[Date of issue/Date of revision](#)

04/17/2024.

[Date of previous issue](#)

03/22/2022.

[Prepared by](#)

Product Stewardship

[Key to abbreviations](#)

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

UN = United Nations

VOC = Volatile Organic Compound

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](#)

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SECTION 16: Other information

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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