

SAFETY DATA SHEET



Castrol ON EV Transmission Fluid D2

Section 1. Identification

GHS product identifier	Castrol ON EV Transmission Fluid D2
Product code	470525-DE41
SDS #	470525
Relevant identified uses of the substance or mixture and uses advised against	
Identified uses	<input checked="" type="checkbox"/> EV Transmission Fluid - Dry e-motor For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Uses advised against	Consult with experts for use other than relevant identified use.
Manufacturer	BP Lubricants USA Inc. 1500 Valley Road Wayne, NJ 07470 Telephone: 1-888-CASTROL
Supplier	Wakefield Canada Inc. 3620 Lakeshore Blvd West Toronto, Ontario, Canada M8W 1P2 Phone Number - 416-252-5511
EMERGENCY HEALTH INFORMATION:	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)
EMERGENCY TELEPHONE NUMBER	1 (800) 447-8735 Outside the US: +1 703-527-3887 (CHEMTREC)

Section 2. Hazard identification

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

GHS label elements
Hazard pictograms



Signal word	Warning
Hazard statements	H361 - Suspected of damaging fertility or the unborn child.
Precautionary statements	
General	P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves, protective clothing and eye or face protection.
Response	P308 + P313 - IF exposed or concerned: Get medical attention.
Storage	P405 - Store locked up.
Disposal	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Section 2. Hazard identification

Other hazards which do not result in classification Defatting to the skin.

Section 3. Composition/information on ingredients

Substance/mixture Mixture

Highly refined base oil (IP 346 DMSO extract < 3%). Synthetic base stock. Proprietary performance additives.

Ingredient name	Synonyms	% (w/w)	CAS number	
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Baseoil - unspecified; Lubricating oils, petroleum, C20-50, hydrotreated neutral oil based; Lubricating oils, petroleum, C20-50-hydrotreated neutral oil-based; Lubricating oils (petroleum), (C=20-50) hydrotreated neutral oil-based; Lubricating oils (petroleum), C20-50 hydrotreated neutral oil based; OILS, LUBRICATING (PETROLEUM) C20-50, HYDROTREATED NEUTRAL OIL-BASED; Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based, Baseoil - unspecified; Lubricating oils, petroleum, C20-50, hydrotreated neutral oil-based; Lubricating oils (petroleum), C20-C50, hydrotreated neutral oilbased	≥60 - ≤80	72623-87-1	
1-Decene, homopolymer, hydrogenated	Dec-1-ene, oligomers, hydrogenated; 1-Decene, homopolymer, hydrogenated; Hydrogenated polydecene; E 907; hydrogenated poly-1-decene; hydrogenated polydec-1-ene; hydrogenated poly-alpha-olefin; 1-Decene, hydrogenated; Hydrogenated decene homopolymer; Hydrogenation products of dec-1-ene polymer; Hydrogenation reaction products of polymer of dec-1-ene; Hydrogenated polymer of dec-1-ene; HOMOPOLYMER, DECENE HYDROGENATED; synthetic oil	≥10 - ≤30	68037-01-4	
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	Dec-1-ene, oligomers, hydrogenated; 1-Decene, homopolymer, hydrogenated; Hydrogenated polydecene; E 907; hydrogenated poly-1-decene; hydrogenated polydec-1-ene; hydrogenated poly-alpha-olefin; 1-Decene, hydrogenated; Hydrogenated decene homopolymer; Hydrogenation products of dec-1-ene polymer; Hydrogenation reaction products of polymer of dec-1-ene; Hydrogenated polymer of dec-1-ene; HOMOPOLYMER, DECENE HYDROGENATED; synthetic oil	≥10 - ≤30	68037-01-4	
Distillates (petroleum), hydrotreated	Baseoil - unspecified; Distillates,	≥1 - ≤5	64742-54-7	

Section 3. Composition/information on ingredients

heavy paraffinic	petroleum, hydrotreated heavy paraffinic; Mineral oil, petroleum distillates, hydrotreated heavy paraffinic; Distillates (petroleum), hydro-treated heavy paraffinic; Paraffin oil; HYDROTREATED HEAVY PARAFFINIC DISTILLATE; DISTILLATES (PETROLEUM) HYDROFVLD; Distillates (petroleum), hydrotreated heavy paraffinic, Baseoil - unspecified			
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Baseoil - unspecified; Distillates, petroleum, solvent dewaxed heavy paraffinic; Mineral oil, petroleum distillates, solvent-dewaxed heavy paraffinic; Paraffin oil; Distillates, petroleum, solvent-dewaxed heavy paraffinic; Distillate (Pet.) solvent-dewaxed heavy paraffinic; SOLVENT REFINED PARAFFINIC MINERAL OIL; OILS, PARAFFINIC, HEAVY, SOLVENT DEWAXED; Solvent dewaxed heavy paraffinic petroleum oil; PARAFFINIC PETROLEUM DISTILLATES; Distillates (petroleum), solvent-dewaxed heavy paraffinic, Baseoil - unspecified	≥1 - ≤5	64742-65-0	
Distillates (petroleum), solvent-refined heavy paraffinic	Baseoil - unspecified; Distillates, petroleum, solvent refined heavy paraffinic; Solvent-refined heavy paraffinic distillate; Mineral oil, petroleum distillates, solvent-refined heavy paraffinic; Mineral oil, petroleum distillates, solvent-refined (severe) heavy paraffinic; Paraffin oil; DISTILLATES, PETROLEUM, solvent-refined heavy paraffinic; Base oil, lubricant base stock; Base oil, bright stock, lubricant; SOLVENT-REFINED HEAVY PARAFFINIC PETROLEUM; SOLVENT REFINED HEAVY PARAFFINIC DISTILLATES	≥1 - ≤5	64741-88-4	
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Phosphorothioic acid, O,O,O-triphenyl esters, tert-Bu derivs.; Phosphorothioic acid, O,O,O-triphenyl esters, tert-Bu derivs; Phosphorothioic acid, O,O,O-triphenyl ester tert-butyl derivs; Phenol, tertiary butylated thionophosphate(3:1)	≥0.1 - ≤1	192268-65-8	

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

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. Get medical attention. If skin irritation or rash occurs: Get medical advice/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.

Most important symptoms/effects, acute and delayed

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	Defatting to the skin. May cause skin dryness and irritation.
Ingestion	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	No specific data.
Inhalation	May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.
Skin contact	Adverse symptoms may include the following: irritation 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

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.
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 thermal decomposition products	Combustion products may include the following: carbon oxides (CO, CO ₂) (carbon monoxide, carbon dioxide)

Section 5. Fire-fighting measures

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".

Wear appropriate personal protective equipment, as indicated in Section 8.

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). 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.

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.

Section 7. Handling and storage

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
<input checked="" type="checkbox"/> Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	CA Alberta Provincial (Canada). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Issued/Revised: 7/2009 Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Issued/Revised: 7/2009 Form: Mist CA Quebec Provincial (Canada). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Issued/Revised: 1/2000 Form: mist STEV: 10 mg/m ³ 15 minutes. Issued/Revised: 1/2000 Form: mist
Distillates (petroleum), hydrotreated heavy paraffinic	CA Alberta Provincial (Canada). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Issued/Revised: 7/2009 Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Issued/Revised: 7/2009 Form: Mist CA Quebec Provincial (Canada). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Issued/Revised: 1/2000 Form: mist STEV: 10 mg/m ³ 15 minutes. Issued/Revised: 1/2000 Form: mist
Distillates (petroleum), solvent-dewaxed heavy paraffinic	CA Alberta Provincial (Canada). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Issued/Revised: 7/2009 Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Issued/Revised: 7/2009 Form: Mist CA Quebec Provincial (Canada). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Issued/Revised: 1/2000 Form: mist STEV: 10 mg/m ³ 15 minutes. Issued/Revised: 1/2000 Form: mist
Distillates (petroleum), solvent-refined heavy paraffinic	CA Alberta Provincial (Canada). [Oil] 8 hrs OEL: 5 mg/m ³ 8 hours. Issued/Revised: 7/2009 Form: Mist 15 min OEL: 10 mg/m ³ 15 minutes. Issued/Revised: 7/2009 Form: Mist CA Quebec Provincial (Canada). [Mineral oil (mist)] TWAEV: 5 mg/m ³ 8 hours. Issued/Revised: 1/2000 Form: mist STEV: 10 mg/m ³ 15 minutes. Issued/Revised: 1/2000 Form: mist

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

Section 8. Exposure controls/personal protection

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

Brown.

Odor

Not available.

Odor threshold

Not available.

pH

Not applicable.

Section 9. Physical and chemical properties

Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Open cup: >220°C (>428°F) [Cleveland ASTM D 92]
Pour point	-57 °C
Drop Point	Not available.
Evaporation rate	Not available.
Flammability	
Flammability (solid, gas)	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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	<0.08	<0.011	ASTM D 5191			
1-Decene, homopolymer, hydrogenated	<0.0041	<0.00055	ASTM E 1194-87			
Distillates (petroleum), hydrotreated heavy paraffinic	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), solvent-dewaxed heavy paraffinic	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), solvent-refined heavy paraffinic	<0.08	<0.011	ASTM D 5191			

Relative vapor density	Not available.
Density	<1000 kg/m ³ (<1 g/cm ³) at 15°C
Relative density	Not available.
Solubility(ies)	

Media	Result
water	Not soluble

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

Auto-ignition temperature

Ingredient name	°C	°F	Method
1-Decene, homopolymer, hydrogenated	343 to 369	649.4 to 696.2	ASTM D 2159
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	343 to 369	649.4 to 696.2	ASTM D 2159

Decomposition temperature

Not available.

Viscosity

Kinematic: 32.2 mm²/s (32.2 cSt) at 40°C
Kinematic: 6.3 to 6.8 mm²/s (6.3 to 6.8 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.
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
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	Based on studies with similar substances. Based on studies with similar substances. Based on studies with similar substances.
	LD50 Dermal	Rat	>5000 mg/kg	-	
	LD50 Oral	Rat	>5000 mg/kg	-	
1-Decene, homopolymer, hydrogenated	LD50 Dermal	Rat	>2000 mg/kg	-	Based on studies with similar substances. Based on studies with similar substances.
	LD50 Oral	Rat	>5000 mg/kg	-	
	LD50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours	
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	LD50 Dermal	Rat	>2000 mg/kg	-	Based on studies with similar substances.
	LD50 Oral	Rat	>2000 mg/kg	-	
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances. Based on studies with similar substances.
	LD50 Oral	Rat	>5000 mg/kg	-	
	LD50 Inhalation	Rat	>5 mg/l	4 hours	

Section 11. Toxicological information

Dusts and mists					studies with similar substances. Based on studies with similar substances. Based on studies with similar substances. Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours	
	LD50 Dermal	Rat	>2000 mg/kg	-	
	LD50 Oral	Rat	>5000 mg/kg	-	
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	LD50 Oral	Rat	>2000 mg/kg	-	-

Sensitization

Product/ingredient name	Route of exposure	Species	Result	Remarks
▣ Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
1-Decene, homopolymer, hydrogenated	skin	Guinea pig	Not sensitizing	-
Dec-1-ene, homopolymer, hydrogenated	skin	Guinea pig	Not sensitizing	-
Distillates (petroleum), hydrotreated heavy paraffinic	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	skin	Guinea pig	Not sensitizing	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	skin	Guinea pig	Not sensitizing	-

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
▣ Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro	Positive	Based on studies with similar substances.
	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on studies with similar substances.
	OECD 474 Mammalian Erythrocyte	Experiment: In vivo Subject: Mammal - species unspecified	Negative	Based on studies with similar substances.

Section 11. Toxicological information

1-Decene, homopolymer, hydrogenated	Micronucleus Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	-
	OECD 471 Bacterial Reverse Mutation Test	Subject: Bacteria Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Subject: Mammal - species unspecified Experiment: In vivo	Negative	Based on studies with similar substances.
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	OECD 471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Subject: Bacteria Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Subject: Mammal - species unspecified Experiment: In vivo	Negative	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	Based on studies with similar substances.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Subject: Bacteria Experiment: In vitro	Negative	Based on studies with similar substances.
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	Based on studies with similar substances.
	474 Mammalian Erythrocyte Micronucleus Test	Subject: Mammal - species unspecified Experiment: In vivo	Negative	Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD 471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 473 <i>In vitro</i> Mammalian Chromosomal	Subject: Bacteria Experiment: In vitro	Negative	Based on studies with similar substances.

Section 11. Toxicological information

reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Aberration Test	Subject: Mammal - species unspecified			
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro	Negative		Based on studies with similar substances.
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Subject: Unspecified Experiment: In vivo	Negative		Based on studies with similar substances.
	OECD 471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	-	
	OECD 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Subject: Bacteria Experiment: In vitro	Negative	-	
	OECD 476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Subject: Mammal - species unspecified Experiment: In vitro	Negative	-	
		Subject: Mammal - species unspecified			

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Result	Exposure
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Negative	Negative	Negative	Rat	Oral	-
1-Decene, homopolymer, hydrogenated	Negative	Negative	Negative	Rat	Oral	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	Negative	Negative	Negative	Rat	Oral	-
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Negative	Negative	Negative	Rat	Oral	-

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Negative - Oral	Rat	-	-
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Positive - Oral	Rat	-	-

Aspiration hazard

Name	Result
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1
1-Decene, homopolymer, hydrogenated	ASPIRATION HAZARD - Category 1
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	ASPIRATION HAZARD - Category 1
Distillates (petroleum), solvent-dewaxed heavy paraffinic	ASPIRATION HAZARD - Category 1

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.

Skin contact

Defatting to the skin. May cause skin dryness and irritation.

Inhalation

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

Ingestion

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact

No specific data.

Inhalation

May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.

Skin contact

Adverse symptoms may include the following:
irritation
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

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

Suspected of damaging the unborn child.

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

Not available.

Section 12. Ecological information

Toxicity

No testing has been performed by the manufacturer.

Product/ingredient name	Species	Test/Result	Exposure	Effects	Remarks
-------------------------	---------	-------------	----------	---------	---------

Section 12. Ecological information

Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	Based on studies with similar substances.
	Fish	Acute LL50 >100 mg/l	96 hours	-	Based on studies with similar substances.
	Algae	Acute NOEL ≥100 mg/l	72 hours	-	-
	Daphnia	Chronic NOEL ≥1000 mg/l	21 days	-	Based on studies with similar substances.
1-Decene, homopolymer, hydrogenated	Algae	Acute EL50 >1000 mg/l	72 hours	-	-
	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	-
	Fish	Acute LL50 >1000 mg/l	96 hours	-	-
	Daphnia	Chronic NOELR 125 mg/l	21 days	-	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	Algae	Acute EL50 >1000 mg/l	72 hours	-	Based on studies with similar substances.
	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	Based on studies with similar substances.
	Fish	Acute LL50 >1000 mg/l	96 hours	-	-
	Daphnia	Chronic NOELR 125 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	-	-
	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), solvent-dewaxed heavy paraffinic	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	Based on studies with similar substances.

Section 12. Ecological information

	Algae	Acute ErL50 100 mg/l	72 hours	-	Based on studies with similar substances.
	Fish	Acute LL50 >100 mg/l	96 hours	-	Based on studies with similar substances.
	Algae	Chronic NOELR 100 mg/l	72 hours	-	Based on studies with similar substances.
	Daphnia	Chronic NOELR 10 to 1000 mg/l	21 days	-	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Algae	Acute EC50 >100 mg/l	72 hours	-	-
	Daphnia	Acute EC50 >100 mg/l	48 hours	-	-
	Fish	Acute LC50 >100 mg/l	96 hours	-	-
	Algae	Chronic NOEC >100 mg/l	72 hours	-	-
	Daphnia	Chronic NOEC 0.026 mg/l	21 days	-	-
	Fish	Chronic NOEC 0.0044 mg/l	87 days	-	-

Conclusion/Summary Not available.

Persistence and degradability

Partially biodegradable.

Bioaccumulative potential

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

Product/ingredient name	LogP _{ow}	BCF	Potential
1-Decene, homopolymer, hydrogenated	>10	-	High
Dec-1-ene, homopolymer, hydrogenated	>10	-	High
Dec-1-ene, oligomers, hydrogenated			
Distillates (petroleum), solvent-refined heavy paraffinic	3.9 to 6	-	High
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	4.8 to 8.8	-	High

Mobility in soil

Soil/water partition coefficient (K_{oc}) Not available.

Mobility Spillages may penetrate the soil causing ground water contamination.

Section 12. Ecological information

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. 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

	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


Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

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.

Section 15. Regulatory information

Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan Chemical Substances Inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are active or exempted.
REACH Status	 The company, as identified in Section 1, sells this product in the EU in compliance with the current requirements of REACH.

Section 16. Other information

History

Date of issue/Date of revision	4/26/2024
Date of previous issue	06/06/2023.
Version	4
Prepared by	Product Stewardship
Key to abbreviations	ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor CAS Number = Chemical Abstracts Service Registry Number GHS = Globally Harmonized System of Classification and Labelling of Chemicals HPR = Hazardous Products Regulations 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) REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006] UN = United Nations 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

References Not available.

 **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 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.