SAFETY DATA SHEET

Castrol ON EV Transmission Fluid D2

Section 1. Chemical product and company identification

GHS product identifier Castrol ON EV Transmission Fluid D2

Product code 470525-DE41

SDS no. 470525

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

Product use EV Transmission Fluid - Dry e-motor
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Supplier Castrol Madeni Yağlar Ticaret A.Ş
İçerenköy Mah. Değirmen Yolu Cad. Mengerler Blok No: 28/1 İç Kapı No: 12
Ataşehir/İstanbul

EMERGENCY TELEPHONE NUMBER CASTROL DIRECT 0212 473 77 37
Carechem: +44 (0) 1235 239 670 (24/7)
Ministry of Health National Poison Information Centre: 114 (24 hours)

Section 2. Hazards identification

Classification of the substance or mixture SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3

GHS label elements

Signal word No signal word.

Hazard statements H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Prevention P273 - Avoid release to the environment.

Response Not applicable.

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 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.

Section 3. Composition/information on ingredients

Ingredient name	%	Identifiers	Classification	Type
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	≥50 - ≤75	CAS: 72623-87-1 EC: 276-738-4	ASPIRATION HAZARD - Category 1	[1]
1-Decene, homopolymer, hydrogenated	≤10	CAS: 68037-01-4 EC: 500-183-1	ASPIRATION HAZARD - Category 1	[1]
Dec-1-ene, homopolymer, hydrogenated	≤10	CAS: 68037-01-4 EC: 500-393-3	ASPIRATION HAZARD - Category 1	[1]
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	≤10	CAS: 68037-01-4 EC: 500-393-3	ASPIRATION HAZARD - Category 1	[1]
Distillates (petroleum), solvent-dewaxed heavy paraffinic	≤3	CAS: 64742-65-0 EC: 265-169-7	ASPIRATION HAZARD - Category 1	[1]
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	<1	CAS: 192268-65-8	ACUTE TOXICITY (oral) - Category 5 REPRODUCTIVE TOXICITY - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4	[1]
zinc isodecyl phosphorodithioate	≤0.3	CAS: 25103-54-2 EC: 246-618-6	ACUTE TOXICITY (oral) - Category 5 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	[1]
2,6-di-tert-butylphenol	≤0.3	CAS: 128-39-2 EC: 204-884-0	SKIN CORROSION/IRRITATION - Category 2 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1	[1]

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.

Type

[1] Substance classified with a health or environmental hazard

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

Section 4. First aid measures

Description of necessary first aid measures

Inhalation If inhaled, remove to fresh air. 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.

Skin contact Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention if symptoms occur.

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.

Most important symptoms/effects, acute and delayed

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

Section 4. First aid measures

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

Specific treatments	No specific treatment.
Notes to physician	Treatment should in general be symptomatic and directed to relieving any effects.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

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	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: carbon oxides (CO, CO_2) (carbon monoxide, carbon dioxide)
Special protective actions for fire-fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Put on appropriate personal protective equipment. Floors may be slippery; use care to avoid falling. Contact emergency personnel.
For emergency responders	Entry into a confined space or poorly ventilated area contaminated with vapour, 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 spilt 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.

Methods and material 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.

Section 6. Accidental release measures

Large spill

Stop leak if without risk. Move containers from spill area. Approach the 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 spilt 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). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour 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 spilt material and runoff with soil and surface waterways.

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 unlabelled 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

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

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

Section 8. Exposure controls/personal protection

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.

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.

Colour Brown.

Odour Not available.

Odour threshold Not available.

pH Not applicable.

Melting 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]

Evaporation rate Not available.

Flammability Not available.

Lower and upper explosion limit/flammability limit Not available.

Vapour pressure

Section 9. Physical and chemical properties

Ingredient name	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	<0.07501	<0.01	ASTM D 5191			
1-Decene, homopolymer, hydrogenated	<0.0041	<0.00055	ASTM E 1194-87			
Distillates (petroleum), hydrotreated heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), solvent-dewaxed heavy paraffinic	<0.07501	<0.01	ASTM D 5191			
Distillates (petroleum), solvent-refined heavy paraffinic	<0.07501	<0.01	ASTM D 5191			

Relative vapour density Not available.

Relative 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

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	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 mm^2/s (32.2 cSt) at 40°C
Kinematic: 6.3 to 6.8 mm^2/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 polymerisation will not occur.

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

Section 10. Stability and reactivity

Incompatible materials Reactive or incompatible with the following materials: oxidising 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	Result	Species	Dose	Exposure
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
1-Decene, homopolymer, hydrogenated	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
Dec-1-ene, homopolymer, hydrogenated	LD50 Dermal	Rat	>2000 mg/kg	-
	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	-
	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
Distillates (petroleum), hydrotreated heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	>5 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	LC50 Inhalation Dusts and mists	Rat	>5.53 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	-
zinc isodecyl	LD50 Dermal	Rat	>5000 mg/kg	-

phosphorodithioate				
	LD50 Oral	Rat	3100 mg/kg	-
2,6-di-tert-butylphenol	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
1-Decene, homopolymer, hydrogenated	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
Dec-1-ene, homopolymer, hydrogenated	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
Distillates (petroleum), hydrotreated heavy paraffinic	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	-	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Non-irritant to skin.	Rabbit	-	-	-
zinc isodecyl phosphorodithioate	Eyes - Non-irritating to the eyes.	Unspecified	-	-	-
	Skin - Non-irritant to skin.	Unspecified	-	-	-
2,6-di-tert-butylphenol	Eyes - Non-irritating to the eyes.	Rabbit	-	-	-
	Skin - Irritant	Rabbit	-	-	-

Sensitisation

Section 11. Toxicological information

Product/ingredient name	Route of exposure	Test authority / Test number		Species	Result	Remarks
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	skin	OECD	406	Guinea pig	Not sensitising	Based on studies with similar substances.
1-Decene, homopolymer, hydrogenated	skin	OECD	406	Guinea pig	Not sensitising	-
Dec-1-ene, homopolymer, hydrogenated	skin	OECD	406	Guinea pig	Not sensitising	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	skin	OECD	406	Guinea pig	Not sensitising	-
Distillates (petroleum), hydrotreated heavy paraffinic	skin	OECD	406	Guinea pig	Not sensitising	Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	skin	OECD	406	Guinea pig	Not sensitising	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	skin	OECD	406	Guinea pig	Not sensitising	-
zinc isodecyl phosphorodithioate	skin	OECD	406	Guinea pig	Not sensitising	Based on studies with similar substances.
2,6-di-tert-butylphenol	skin	OECD	406	Guinea pig	Not sensitising	-

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Positive
	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative

	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
1-Decene, homopolymer, hydrogenated	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
Dec-1-ene, homopolymer, hydrogenated	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
Distillates (petroleum), hydrotreated heavy paraffinic	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	473 In vitro Mammalian	Experiment: In vitro	Negative

	Chromosomal Aberration Test	Subject: Mammal - species unspecified	
	476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammal - species unspecified	Negative
zinc isodecyl phosphorodithioate	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammal - species unspecified	Negative
2,6-di-tert-butylphenol	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative
	OECD 473 In vitro Mammalian	Experiment: In vitro	Negative

	Chromosomal Aberration Test	Subject: Mammal - species unspecified

Carcinogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Distillates (petroleum), hydrotreated heavy paraffinic	Negative - Dermal - Unspecified	Mouse	-	-
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Negative - Dermal - Unspecified	Mouse	-	-

Reproductive toxicity

Product/ ingredient name	Test authority / Test number		Species	Exposure	Dose	Developmental toxin	Maternal toxicity	Fertility	Remarks
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD	421	Rat	-	Oral	Negative	Negative	Negative	Based on studies with similar substances.
1-Decene, homopolymer, hydrogenated	OECD	415	Rat	-	Oral	Negative	Negative	Negative	-
Dec-1-ene, homopolymer, hydrogenated	OECD	415	Rat	-	Oral	Negative	Negative	Negative	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	OECD	415	Rat	-	Oral	Negative	Negative	Negative	-
Distillates (petroleum), hydrotreated heavy paraffinic	OECD	421	Rat	-	Oral	Negative	Negative	Negative	Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD	421	Rat	-	Oral	Negative	Negative	Negative	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	OECD	421	Rat	-	Oral	Negative	Negative	Negative	-

zinc isodecyl phosphorodithioate	OECD	421	Rat	-	Oral	Negative	Negative	Negative	-
2,6-di-tert-butylphenol	OECD	421	Rat	-	Oral	Equivocal	Positive	Negative	Not classified.

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	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

Information on 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 Vapour inhalation under ambient conditions is not normally a problem due to low vapour pressure.

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

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 vapour, mists or fumes resulting from thermal decomposition products occurs.

Skin contact Adverse symptoms may include the following:
irritation
dryness
cracking

Ingestion No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Eye contact Potential risk of transient stinging or redness if accidental eye contact occurs.

Inhalation Overexposure to the inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

Skin contact Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Ingestion Ingestion of large quantities may cause nausea and diarrhoea.

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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Test authority / Test number		Species	Result	Exposure	Effects	Remarks
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD	202	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	Based on studies with similar substances.
	OECD	203	Fish	Acute LL50 >100 mg/l	96 hours	-	Based on studies with similar substances.
	OECD	201	Algae	Acute NOEL ≥100 mg/l	72 hours	-	-
	OECD	211	Daphnia	Chronic NOEL ≥1000 mg/l	21 days	-	Based on studies with similar substances.
1-Decene, homopolymer, hydrogenated	Equivalent to OECD	201	Algae	Acute EL50 >1000 mg/l	72 hours	-	-
	OECD	202	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	-
	OECD	203	Fish	Acute LL50 >1000 mg/l	96 hours	-	-
	OECD	211	Daphnia	Chronic NOELR 125 mg/l	21 days	-	-
Dec-1-ene, homopolymer, hydrogenated	Equivalent to OECD	201	Algae	Acute EL50 >1000 mg/l	72 hours	-	-
	OECD	202	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	-
	OECD	203	Fish	Acute LL50 >1000 mg/l	96 hours	-	-
	OECD	211	Daphnia	Chronic NOELR 125 mg/l	21 days	-	-
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	OECD	201	Algae	Acute EL50 >1000 mg/l	72 hours	-	Based on studies with similar substances.
	OECD	202	Daphnia	Acute EL50 >1000 mg/l	48 hours	-	Based on studies with similar substances.
	OECD	203	Fish	Acute LL50 >1000 mg/l	96 hours	-	-

	OECD	211	Daphnia	Chronic NOELR 125 mg/l	21 days	-	Based on studies with similar substances.
Distillates (petroleum), hydrotreated heavy paraffinic	OECD	201	Algae	Acute EL50 >100 mg/l	72 hours	-	Based on studies with similar substances.
	OECD	202	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	Based on studies with similar substances.
	OECD	203	Fish	Acute LL50 >100 mg/l	96 hours	-	Based on studies with similar substances.
	OECD	201	Algae	Chronic NOEL ≥100 mg/l	72 hours	-	Based on data available for this or related materials.
	OECD	211	Daphnia	Chronic NOEL 10 mg/l	21 days	-	Based on studies with similar substances.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD	201	Algae	Acute EL50 >100 mg/l	72 hours	-	Based on studies with similar substances.
	OECD	202	Daphnia	Acute EL50 >10000 mg/l	48 hours	-	Based on studies with similar substances.
	OECD	203	Fish	Acute LL50 >100 mg/l	96 hours	-	Based on studies with similar substances.
	OECD	201	Algae	Chronic NOEL ≥100 mg/l	72 hours	-	Based on studies with similar substances.
	OECD	211	Daphnia	Chronic NOEL 10 mg/l	21 days	-	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	OECD	201	Algae	Acute EC50 >100 mg/l	72 hours	-	-
	OECD	202	Daphnia	Acute EC50	48 hours	-	-

				>100 mg/l			
	OECD	203	Fish	Acute LC50 >100 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic NOEC >100 mg/l	72 hours	-	-
	OECD	211	Daphnia	Chronic NOEC 0.026 mg/l	21 days	-	-
	OECD	210	Fish	Chronic NOEC 0.0044 mg/l	87 days	-	-
zinc isodecyl phosphorodithioate	OECD	202	Daphnia	Acute EC50 0.2 mg/l	48 hours	-	-
	OECD	201	Algae	Acute ErC50 >1.6 mg/l	72 hours	-	-
	OECD	203	Fish	Acute LC50 >0.28 mg/l	96 hours	-	-
2,6-di-tert-butylphenol	OECD	201	Algae	Acute EL50 1.2 mg/l	96 hours	-	-
	OECD	202	Daphnia	Acute EL50 0.45 mg/l	48 hours	-	-
	OECD	203	Fish	Acute LC50 1.4 mg/l	96 hours	-	-
	OECD	201	Algae	Chronic NOEC 0.64 mg/l	96 hours	-	-
	OECD	211	Daphnia	Chronic NOEC 0.035 mg/l	21 days	-	-

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

Persistence and degradability

Partially biodegradable.

Product/ingredient name	Test	Result	Remarks
Lubricating oils (petroleum), C20-50, hydrotreated neutral oil-based	OECD 301F	31 % - Inherent - 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.
Distillates (petroleum), solvent-dewaxed heavy paraffinic	OECD 301F	31 % - Not readily - 28 days	Based on studies with similar substances.
reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	OECD 301D	0 % - Not readily - 28 days	-
zinc isodecyl phosphorodithioate	OECD 301b	1 % - Not readily - 28 days	Based on studies with similar substances.
2,6-di-tert-butylphenol	OECD 301B	24 % - Not readily - 28 days	-

Section 12. Ecological information

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	>6.5	-	High
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	>10	-	High
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
2,6-di-tert-butylphenol	4.5	-	High

Mobility in soil

Mobility Spillages may penetrate the soil causing ground water contamination.

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 minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	IMDG	IATA
UN number	Not regulated.	Not regulated.
UN proper shipping name	-	-

Section 14. Transport information

Transport hazard class(es)	-	-
Packing group	-	-
Environmental hazards	No.	No.
Additional information	-	-

Special precautions for user Not available.

Section 15. Regulatory information

Regulation according to other foreign laws

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

Section 16. Other information

History

Date of printing	7/11/2025
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Date of previous issue	7/11/2025
Version	2.04
Prepared by	Product Stewardship

Key to abbreviations

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
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,

Section 16. Other information

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.