

SAFETY DATA SHEET

Castrol Transmax ATF DEXRON®-VI MERCON®
LV Multivehicle

In accordance with Industrial Safety and Health Act

Section 1. Chemical product and company identification

Product name Castrol Transmax ATF DEXRON®-VI MERCON® LV Multivehicle

Code 469577-KR09

SDS no. 469577

Supplier BP Korea Ltd.
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Republic of Korea

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EMERGENCY TELEPHONE NUMBER Carechem: +65 3158 1074 (24/7)

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

**Use of the substance/
mixture** Automatic transmission fluid
For specific application advice see appropriate Technical Data Sheet or consult our company representative.

Section 2. Hazards identification

GHS Classification Not classified.

GHS label elements, including precautionary statements

Signal word No signal word.

Hazard statements No known significant effects or critical hazards.

Precautionary statements

Prevention Not applicable.

Response Not applicable.

Storage Not applicable.

Disposal Not applicable.

**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%). Proprietary performance additives.

Hazardous ingredients

Section 3. Composition/information on ingredients

Ingredient name	Synonym	CAS number	%
Distillates (petroleum), hydrotreated heavy paraffinic	Baseoil - unspecified; Distillates, 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	64742-54-7	51.217
Distillates (petroleum), hydrotreated light paraffinic	Baseoil - unspecified; Distillates, petroleum, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated (mild) light paraffinic; Distillates (petroleum), hydro-treated light paraffinic; Paraffin oil; DISTILLATES (PETROLEUM) HYDROTREATED LIGHT PARAFFINIC; DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; ALIPHATIC HYDROCARBON, SULFURIZED; Distillates (petroleum), hydrotreated light paraffinic, Baseoil - unspecified	64742-55-8	40.508
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Baseoil - unspecified; Lubricating oils, petroleum, C15-30, hydrotreated neutral oil based; Paraffin oil; Lubricating oils (petroleum), C15-C30, hydrotreated neutral oil-based; Lubricating oils, petroleum, C15-30-hydrotreated neutral oil-based; Lubricating oils (petroleum), (C=15-30), hydrotreated neutral oil-based; OILS, LUBRICATING	72623-86-0	1.647

Section 3. Composition/information on ingredients

Distillates (petroleum), hydrotreated light paraffinic	<p>(PETROLEUM) HYDROTREATED NEUTRAL OIL-BASED C15-30; Lubricating oils (petroleum), C15-30, hydrotreated neutral oil- based, Baseoil - unspecified Baseoil - unspecified; Distillates, petroleum, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated light paraffinic; Mineral oil, petroleum distillates, hydrotreated (mild) light paraffinic; Distillates (petroleum), hydro-treated light paraffinic; Paraffin oil; DISTILLATES (PETROLEUM) HYDROTREATED LIGHT PARAFFINIC; DISTILLATES, HYDROTREATED LIGHT PARAFFINIC; ALIPHATIC HYDROCARBON, SULFURIZED; Distillates (petroleum), hydrotreated light paraffinic, Baseoil - unspecified</p>	64742-55-8	1.098
Bis (2-hydroxyethyl) tallow alkylamine	<p>Ethanol, 2,2'-iminobis-, N- tallow alkyl derivatives; Amines, tallow alkyl, ethoxylated; Alkyl* N,N-bis (2-hydroxyethyl)amine; N- (Tallow-alkyl) derivatives of 2,2'-iminodiethanol; N,N- Dipolyoxyalkylene-N-alkyl (or alkenyl) (C6-28) amine; 2,2'-Iminobisethanol, N- tallow alkyl derivs.; BIS TALLOW (2-HYDROXYETHYL) AMINE; ETHANOL, 2,2'- IMINOBIS-, N-TALLOW ALKYL DERIVATIVE; DERIVATIVES, ETHANOL, 2,2'-IMINOBIS, N-TALLOW ALKYL; Ethanol,2,2'- iminobis-,N-tallow alkyl dervis.; 2,2'-(C16-18 (evennumbered, C18 unsaturated) alkyl imino) diethanol</p>	61791-44-4	0.099918
dimantine	<p>1-Octadecanamine, N,N- dimethyl-; Dimethylstearylamine; N,N-</p>	124-28-7	0.099918

Section 3. Composition/information on ingredients

<p>3-(isodecyloxy)propylamine</p>	<p>Dimethyloctadecylamine; Octadecyldimethylamine; Dimethyl stearamine; dimethyl(octadecyl)amine; N,N-dimethyloctadecan- 1-amine; Octadecylamine, N,N-dimethyl; Dimethyloctadecylamine; N, N-Dimethyl- 1-octadecanamine; Octadecyl tertiary amine 1-Propanamine, 3- (isodecyloxy)-; Isodecyloxypropylamine; 3-Isodecyloxypropylamine; Propylamine, 3-isodecoxy-; 3-(Isodecyloxy)propan- 1-amine; Alkyl(C1-20) -3-aminopropyl ether; 3- (Isodecyloxy) -1-propanamine; 3- (8-methylnonoxy)propan- 1-amine</p>	<p>30113-45-2</p>	<p>0.0549</p>
<p>2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol</p>	<p>1H-Imidazole-1-ethanol, 2- (8-heptadecen-1-yl) -4,5-dihydro-; 1H-Imidazole- 1-ethanol, 2- (8-heptadecenyl) -4,5-dihydro-; 2-Imidazoline- 1-ethanol, 2- (8-heptadecenyl)-; 2- (8-heptadecenyl) -2-imidazoline-1-ethanol; 1- (2-Hydroxyethyl)-2- (heptadecenyl)imidazoline; OLEYL HYDROXYETHYL IMIDAZOLINE; 2- (2-heptadec-8-enyl- 2-imidazolin-1-yl)ethanol/(Z) -2-(8-heptadecenyl) -4,5-dihydro-1H-imidazole- 1-ethanol; Oleyl imidazoline; 2-(2-(Heptadec-8-en-1-yl) -4,5-dihydro-1H-imidazol- 1-yl)ethanol; 2-Alkyl(or alkenyl,C8-18) -1-hydroxyethylimidazoline; 2-Alkyl (or alkenyl, C7-23) -1-hydroxyethylimidazoline</p>	<p>95-38-5</p>	<p>0.03294</p>

Non-hazardous ingredients

Section 3. Composition/information on ingredients

Ingredient name	Synonym	CAS number	%
Trade secret.	Trade secret.	Trade secret.	1.098 - 1.647
Trade secret.	Trade secret.	Trade secret.	1.098 - 1.647
Trade secret.	Trade secret.	Trade secret.	0.549 - 1.098
Trade secret.	Trade secret.	Trade secret.	0.549 - 1.098
Trade secret.	Trade secret.	Trade secret.	0.549 - 0.99918
Trade secret.	Trade secret.	Trade secret.	0.3294 - 0.549
Trade secret.	Trade secret.	Trade secret.	0.1098 - 0.2196
Trade secret.	Trade secret.	Trade secret.	0.1098 - 0.2196
Trade secret.	Trade secret.	Trade secret.	0.1098 - 0.2196
Trade secret.	Trade secret.	Trade secret.	0.1098 - 0.2196
Trade secret.	Trade secret.	Trade secret.	0.0549 - 0.1087

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

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	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. 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. Get medical attention if symptoms occur.
<u>Indication of immediate medical attention and special treatment needed, if necessary</u>	
Specific treatments	No specific treatment.
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.
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.

Section 5. Firefighting measures

<u>Extinguishing media</u>	
Suitable	In case of fire, use foam, dry chemical or carbon dioxide extinguisher or spray.
Not suitable	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) nitrogen oxides (NO, NO ₂ etc.)
Special protective equipment for fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Section 5. Firefighting 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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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 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.

Large spill

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

Section 7. Handling and storage

Precautions for safe handling

Protective measures

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

Advice on general occupational hygiene

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

Conditions for safe storage, including any incompatibilities

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

Not suitable

Prolonged exposure to elevated temperature

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
Distillates (petroleum), hydrotreated heavy paraffinic	ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction
Distillates (petroleum), hydrotreated light paraffinic	ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction

Section 8. Exposure controls/personal protection

Lubricating oils (petroleum), C-15-30, hydrotreated neutral oil-based	ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction
Distillates (petroleum), hydrotreated light paraffinic	ACGIH TLV (United States). [Mineral Oil, pure, highly and severely refined] TWA: 5 mg/m ³ 8 hours. Issued/Revised: 11/2009 Form: Inhalable fraction

Biological exposure indices

No exposure indices known.

Other ingredients including trade secret: not applicable

Recommended monitoring procedures

Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

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.

Personal protective equipment

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.

Eye protection

Safety glasses with side shields.

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.

Section 8. Exposure controls/personal protection

Skin 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.

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.

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

Red.

Odour

Not available.

Odour threshold

Not available.

pH

Not applicable.

Melting/freezing point

Not available.

Boiling point, initial boiling point, and boiling range

Not available.

Flash point

Open cup: 214°C (417.2°F) [Cleveland]

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

Not applicable. Based on - Physical state

Lower and upper explosive (flammable) limits

Not available.

Vapour pressure

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Distillates (petroleum), hydrotreated heavy paraffinic	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), hydrotreated light paraffinic	<0.08	<0.011	ASTM D 5191			
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	<0.08	<0.011	ASTM D 5191			
Distillates (petroleum), hydrotreated light paraffinic	<0.08	<0.011	ASTM D 5191			

Solubility(ies)

Product name Castrol Transmax ATF DEXRON®-VI MERCON® LV Multivehicle

Product code 469577-KR09

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Section 9. Physical and chemical properties

Media	Result
Water	Not soluble
Vapour density	Not available.
Relative density	Not available.
Density	<1000 kg/m ³ (<1 g/cm ³) at 15°C
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Kinematic: 30.2 mm ² /s (30.2 cSt) at 40°C Kinematic: 5.6 to 6.2 mm ² /s (5.6 to 6.2 cSt) at 100°C
Molecular weight	Not applicable as it is a mixture
<u>Particle characteristics</u>	
Median particle size	Not applicable.

Section 10. Stability and reactivity

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).
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 likely routes of exposure Routes of entry anticipated: Dermal, Inhalation, Eyes.

Acute toxicity

Inhalation	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion	No known significant effects or critical hazards.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Eye contact	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

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

Section 11. Toxicological information

Product/ingredient name	Test	Species	Result	Exposure	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances. 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 mg/l	4 hours	
Distillates (petroleum), hydrotreated light paraffinic	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on studies with similar substances. 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 mg/l	4 hours	
Lubricating oils (petroleum), C15-30, 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	>2000 mg/kg	-	
	LD50 Oral	Rat	>5000 mg/kg	-	
dimantine	LC50 Dermal	Rabbit	8000 mg/kg	-	-
	LD50 Oral	Rat	1230 mg/kg	-	-
3-(isodecyloxy) propylamine	LC50 Dermal	Rabbit	>2000 mg/kg	-	Based on studies with similar substances.
	LC50 Oral	Rat	500 to 2000 mg/kg	-	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl) ethanol	LD50 Oral	Rat	1265 mg/kg	-	-

Irritation/Corrosion

Product/ingredient name	Test authority / Test number	Species	Route / Result	Conc.	Remarks
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Section 11. Toxicological information

Distillates (petroleum), hydrotreated heavy paraffinic	OECD	405	Rabbit	Eyes - Non-irritating to the eyes.	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Mild irritant	-	
Distillates (petroleum), hydrotreated light paraffinic	OECD	405	Rabbit	Eyes - Non-irritating to the eyes.	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Mild irritant	-	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	OECD	405	Rabbit	Eyes - Non-irritating to the eyes.	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Non-irritant to skin.	-	
dimantine	OECD	405	Rabbit	Eyes - Visible necrosis	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Corrosive	-	
3-(isodecyloxy)propylamine	OECD	437	BCOP	Eyes - Severe irritant	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Corrosive	-	
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	OECD	405	Rabbit	Eyes - Visible necrosis	-	Based on studies with similar substances. Based on studies with similar substances.
	OECD	404	Rabbit	Skin - Visible necrosis	-	

Skin corrosion or irritation Not available for product and all ingredients.

Serious eye damage/eye irritation Not available for product and all ingredients.

Respiratory Irritation Not available for product and all ingredients.

Sensitisation

Respiratory Sensitisation

Section 11. Toxicological information

Not available for product
and all ingredients.

Skin Sensitisation

Product/ingredient name	Route of exposure	Species	Result	Remarks
Distillates (petroleum), hydrotreated heavy paraffinic	skin	Guinea pig	Not sensitising	Based on studies with similar substances.
Distillates (petroleum), hydrotreated light paraffinic	skin	Guinea pig	Not sensitising	Based on studies with similar substances.
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	skin	Guinea pig	Not sensitising	Based on studies with similar substances.
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	skin	Guinea pig	Not sensitising	Based on studies with similar substances.

CMR - ISHA Article 42 Public Notice No 2016-41 Occupational Exposure Limits

Product/ingredient name	CAS number	Classification
Ethylene oxide	75-21-8	GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 1A REPRODUCTIVE TOXICITY - Category 2
Toluene	108-88-3	

Carcinogenicity

Quinazoline	Route of exposure unreported	Rat	Negative - Route of exposure unreported - Unspecified	-	104 weeks	Based on studies with similar substances.
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Germ cell mutagenicity

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

Section 11. Toxicological information

hydrotreated light paraffinic	Bacterial Reverse Mutation Test	Subject: Bacteria		with similar substances.	
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro	Negative	Based on studies with similar substances.	
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	OECD 471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified	Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Subject: Bacteria	Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 476 In vitro Mammalian Cell Gene Mutation Test	Subject: Mammal - species unspecified	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.
dimantine	OECD 476	Subject: Mammal - species unspecified	Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 471	Subject: Mammalian-Animal	Experiment: In vivo	Negative	-
3-(isodecyloxy) propylamine	OECD 471	Subject: Bacteria	Experiment: In vitro	Negative	Based on studies with similar substances.
	OECD 474	Subject: Bacteria	Experiment: In vivo	Negative	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	471 Bacterial Reverse Mutation Test	Subject: Mammal - species unspecified	Experiment: In vitro	Negative	Based on studies with similar substances.
	473 In vitro Mammalian Chromosomal Aberration Test	Subject: Bacteria	Experiment: In vitro	Negative	Based on studies with similar substances.
		Subject: Mammal - species unspecified			

Reproductive toxicity

Section 11. Toxicological information

Product/ ingredient name	Test detail	Species	Exposure	Developmental toxin	Maternal toxicity	Fertility	Remarks
Distillates (petroleum), hydrotreated light paraffinic	OECD 421	Rat	Oral -	Negative	Negative	Negative	Based on studies with similar substances.
dimantine	OECD 421	Rat	Oral -	Negative	Positive	Negative	-
3-(isodecyloxy) propylamine	OECD 422	Rat	Oral -	Negative	Negative	Negative	-
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	OECD 422	Rat	Oral -	Negative	Positive	Negative	Based on studies with similar substances.

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.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Ethylene oxide	Category 3	-	Respiratory tract irritation
Toluene	Category 3 Category 3	-	Narcotic effects Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol	Category 2	oral	digestive system, thymus

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.

Aspiration hazard

Name	Result
Distillates (petroleum), hydrotreated light paraffinic	ASPIRATION HAZARD - Category 1
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	ASPIRATION HAZARD - Category 1

Other information Not available.

Section 12. Ecological information

Ecotoxicity No known significant effects or critical hazards.

Persistence/degradability

Expected to be biodegradable.

Mobility in soil Spillages may penetrate the soil causing ground water contamination.

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

Section 12. Ecological information

Other adverse effects	No known significant effects or critical hazards.
Other ecological information	Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Section 13. Disposal considerations

Disposal methods The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Disposal precautions This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	IMDG	IATA
A. UN number	Not regulated.	Not regulated.
B. UN proper shipping name	-	-
C. Transport hazard class(es)	-	-
D. Packing group	-	-
E. Environmental hazards	No.	No.
F. Additional information	-	-

Special precautions for user Not available.

Section 15. Regulatory information

Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) None of the components are listed.

Exposure Limits of Chemical Substances and Physical Factors

The following components have an OEL:

- Distillates (petroleum), hydrotreated heavy paraffinic
- Distillates (petroleum), hydrotreated light paraffinic
- Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based
- Distillates (petroleum), hydrotreated light paraffinic

Section 15. Regulatory information

ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors)	The following components are listed: ethylene oxide, toluene
ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement)	None of the components are listed.
ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up)	The following components are listed: metal working fluids: oil mist, mineral
Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control)	None of the components are listed.

Regulation according to Chemicals Control Act

Article 20 Toxic Chemicals (K-Reach Article 20)	Not applicable
Article 18 Prohibited (K-Reach Article 27)	None of the components are listed.
Article 20 Restricted (K-Reach Article 27)	None of the components are listed.
CCA Article 11 (TRI)	None of the components are listed.
CCA Article 39 (Accident Precaution Chemicals)	None of the components are listed.
Dangerous Materials Safety Management Act	Class: Class 4 - Flammable Liquid Item: 6. Class 4 petroleums Threshold: 6000 L Danger category: III Signal word: Contact with sources of ignition prohibited
Wastes regulation	Designated Waste

Regulation according to other foreign laws

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.
REACH Status	For the REACH status of this product please consult your company contact, as identified in Section 1.
Japan inventory (CSCL)	At least one component is not listed.
Korea inventory (KECI)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.
Taiwan inventory (TCSI)	All components are listed or exempted.
United States inventory (TSCA 8b)	All components are active or exempted.

Section 16. Other information

History

Source of Information

Sources of key data used to compile the Safety Data Sheet: Hazard assessment review data, toxicological reviews, and product physical properties; component supplier hazard communication data; and other publically available resources.

Date first prepared

23/10/2018

Number of revisions and date of last revision

7 10/04/2024.

Prepared by

Product Stewardship

Key to abbreviations

AMP = Acceptable Maximum Peak

ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.

ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail

ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail

CAS Number = Chemical Abstracts Service Registry Number

HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.

ICAO = International Civil Aviation Organization.

IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.

IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.

IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.

NOHSC = National Occupational Health & Safety Commission, Australia

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation [Regulation (EC) No. 1907/2006]

TWA = Time weighted average

STEL = Short term exposure limit

UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

TCCA = Toxic Chemical Control Act

GHS = Global Harmonized System

ISHA = Industrial Safety and Health Act

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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It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP

Section 16. Other information

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