

		Page: 1
SAFETY DATA SHEET		Revision Date: 05/17/2019
		Print Date: 5/29/2019
		SDS Number: R0367943
MaxLife™ DEX/MERC Automatic Transmission Fluid		Version: 1.7
822421		

GHS classification in accordance with the Hazardous Products Regulations
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : MaxLife™ DEX/MERC
Automatic Transmission Fluid

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

Recommended use : Lubricant

Details of the supplier of the safety data sheet Valvoline Canada Corp 905 Winston Churchill Blvd Mississauga ON L5J 4P2 Canada 1-800-TEAMVAL (1-800-832-6825) SDS@valvoline.com	Emergency telephone number 1-800-VALVOLINE (1-800-825-8654) Regulatory Information Number 1-800-TEAMVAL (1-800-832-6825) Product Information 1-800-TEAMVAL (1-800-832-6825)
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SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration (%)
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	Asp. Tox. 1; H304	>=70.00 - < 90.00
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	Asp. Tox. 1; H304	>=1.00 - < 5.00

		Page: 2
SAFETY DATA SHEET		Revision Date: 05/17/2019
		Print Date: 5/29/2019
MaxLife™ DEX/MERC Automatic Transmission Fluid		SDS Number: R0367943
822421		Version: 1.7

DODECYL HYDROXYPROPYL SULFIDE	67124-09-8	Skin Sens. 1; H317	>=0.10 - < 1.00
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SECTION 4. FIRST AID MEASURES

General advice	: No hazards which require special first aid measures.
If inhaled	: If breathed in, move person into fresh air. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of skin contact	: First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
In case of eye contact	: Remove contact lenses. Protect unharmed eye.
If swallowed	: Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	: No symptoms known or expected.
Notes to physician	: No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray Foam Carbon dioxide (CO2) Dry chemical
Specific hazards during firefighting	: Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	: carbon dioxide and carbon monoxide Hydrocarbons
Specific extinguishing	:

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

methods

Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

Other information : Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.

Conditions for safe storage : Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Materials to avoid : No materials to be especially mentioned.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible	Basis

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

			concentration	
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	TWA	5 mg/m3 Mist	CA AB OEL
		STEL	10 mg/m3 Mist	CA AB OEL
		TWAEV	5 mg/m3 Mist	CA QC OEL
		STEV	10 mg/m3 Mist	CA QC OEL
		TWA	1 mg/m3 Mist	CA BC OEL
		PEL	5 mg/m3 particulate	CAL PEL
HYDROTREATED LIGHT PARAFFINIC DISTILLATE	64742-55-8	TWA	5 mg/m3 Mist	CA AB OEL
		STEL	10 mg/m3 Mist	CA AB OEL
		TWAEV	5 mg/m3 Mist	CA QC OEL
		STEV	10 mg/m3 Mist	CA QC OEL
		TWA	1 mg/m3 Mist	CA BC OEL

Engineering measures

: General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment**Respiratory protection**

: Respiratory protection is not required under normal conditions of use.

No personal respiratory protective equipment normally required.

Eye protection

: Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Skin and body protection

: Wear resistant gloves (consult your safety equipment supplier).
Wear as appropriate:
Safety shoes

Hygiene measures

: General industrial hygiene practice.

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

Version: 1.7

MaxLife™ DEX/MERC Automatic Transmission Fluid

822421

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: red
Odour	: mild
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Boiling point/boiling range	: > 218 °C (1013 hPa)
Flash point	: 201 - 249 °C Method: Cleveland open cup
Evaporation rate	: < 1 Ethyl Ether
Flammability (solid, gas)	: No data available
Self-ignition	: No data available
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: 1 hPa Calculated Vapor Pressure
Relative vapour density	: > 1 AIR=1
Relative density	: No data available
Density	: 0.8518 g/cm3 (15.56 °C)
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : 28.8 mm²/s (40 °C)

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : excessive heat

Incompatible materials : alkalis
Strong acids
Strong oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation

Skin contact

Eye Contact

Ingestion

Acute toxicity

Not classified based on available information.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.58 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

Assessment: Not classified as acutely toxic by inhalation under GHS.

Remarks: No mortality observed at this dose.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: No mortality observed at this dose.

DODECYL HYDROXYPROPYL SULFIDE:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: Not classified as acutely toxic by dermal absorption under GHS.

Skin corrosion/irritation

Not classified based on available information.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Species : Rabbit
Result : No skin irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Assessment : Slight, transient irritation
Result : Slight, transient irritation

DODECYL HYDROXYPROPYL SULFIDE:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result : Slight, transient irritation
Remarks : Expected based on components.

Remarks : Unlikely to cause eye irritation or injury.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Species : Rabbit
Result : No eye irritation

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Result : Slight, transient irritation
Assessment : Slight, transient irritation

DODECYL HYDROXYPROPYL SULFIDE:

Species : Rabbit
Result : No eye irritation

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Test Type : Buehler Test
Species : Guinea pig
Assessment : Does not cause skin sensitisation.

DODECYL HYDROXYPROPYL SULFIDE:

Test Type : Local lymph node assay
Species : Guinea pig
Assessment : May cause sensitisation by skin contact.
Method : OECD Test Guideline 429

Germ cell mutagenicity

Not classified based on available information.

Components:**DODECYL HYDROXYPROPYL SULFIDE:**

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Result: negative

Carcinogenicity

Not classified based on available information.

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

Carcinogenicity - : Classified based on DMSO extract content < 3% (Regulation
Assessment (EC) 1272/2008, Annex VI, Part 3, Note L)

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Product:

No aspiration toxicity classification

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

Components:**Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:**

May be fatal if swallowed and enters airways.

HYDROTREATED LIGHT PARAFFINIC DISTILLATE:

May be fatal if swallowed and enters airways.

Further information**Product:**

Remarks : No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Acute aquatic toxicity Category 3; Harmful to aquatic life.

Long-term (chronic) aquatic hazard : Chronic aquatic toxicity Category 3; Harmful to aquatic life with long lasting effects.

Components:

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 203
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 202

Toxicity to algae : NOEL (Pseudokirchneriella subcapitata (green algae)): >= 100 mg/l
End point: Growth inhibition
Exposure time: 72 h
Test Type: static test
Test substance: WAF
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOELR (Oncorhynchus mykiss (rainbow trout)): >= 1,000 mg/l
Exposure time: 14 d

Toxicity to daphnia and other : NOEL (Daphnia (water flea)): 10 mg/l

**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

MaxLife™ DEX/MERC Automatic Transmission Fluid

Version: 1.7

822421

aquatic invertebrates
(Chronic toxicity)

Exposure time: 21 d
Test substance: WAF
Method: OECD Test Guideline 211

DODECYL HYDROXYPROPYL SULFIDE:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 0.58 mg/l
Exposure time: 48 h
Test Type: static test
Test substance: WAF

Toxicity to algae : EL50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Test substance: WAF

M-Factor (Short-term (acute) aquatic hazard) : 1

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEL (Daphnia magna (Water flea)): 0.32 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211
GLP: yes

M-Factor (Long-term (chronic) aquatic hazard) : 1

Persistence and degradability**Components:**

Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

DODECYL HYDROXYPROPYL SULFIDE:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 5 %
Exposure time: 28 d
Method: OECD Test Guideline 301F

No data available

Bioaccumulative potential**Components:**

	Page: 11
SAFETY DATA SHEET	Revision Date: 05/17/2019
	Print Date: 5/29/2019
	SDS Number: R0367943
MaxLife™ DEX/MERC Automatic Transmission Fluid	Version: 1.7
822421	

DODECYL HYDROXYPROPYL SULFIDE:

Partition coefficient: n-octanol/water : log Pow: 4.7 - 6.5

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

Components:

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

General advice : Dispose of in accordance with all applicable local, state and federal regulations.

The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

TDG

		Page: 12
SAFETY DATA SHEET		Revision Date: 05/17/2019
		Print Date: 5/29/2019
		SDS Number: R0367943
MaxLife™ DEX/MERC Automatic Transmission Fluid 822421		Version: 1.7

Not regulated as a dangerous good

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

The components of this product are reported in the following inventories:

DSL	: All components of this product are on the Canadian DSL
AICS	: On the inventory, or in compliance with the inventory
ENCS	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TCSI	: On the inventory, or in compliance with the inventory
TSCA	: On TSCA Inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 05/17/2019

NFPA:	HMIS III:
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**SAFETY DATA SHEET**

Revision Date: 05/17/2019

Print Date: 5/29/2019

SDS Number: R0367943

Version: 1.7

MaxLife™ DEX/MERC Automatic Transmission Fluid

822421

Flammability Health Instability Special hazard.	<table border="1"><tr><td>HEALTH</td><td>0</td></tr><tr><td>FLAMMABILITY</td><td>1</td></tr><tr><td>PHYSICAL HAZARD</td><td>0</td></tr></table> 0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic	HEALTH	0	FLAMMABILITY	1	PHYSICAL HAZARD	0
HEALTH	0						
FLAMMABILITY	1						
PHYSICAL HAZARD	0						

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements

H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.

Sources of key data used to compile the Safety Data Sheet

Valvoline internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Valvoline's Environmental Health and Safety Department (1-800-VALVOLINE).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

	Page: 14
SAFETY DATA SHEET	Revision Date: 05/17/2019
	Print Date: 5/29/2019
	SDS Number: R0367943
MaxLife™ DEX/MERC Automatic Transmission Fluid 822421	Version: 1.7

ICAO : International Civil Aviation Organization
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"
 IMDG : International Maritime Code for Dangerous Goods
 ISO : International Organization for Standardization
 logPow : octanol-water partition coefficient
 LCxx : Lethal Concentration, for xx percent of test population
 LDxx : Lethal Dose, for xx percent of test population.
 ICxx : Inhibitory Concentration for xx of a substance
 Ecxx : Effective Concentration of xx
 N.O.S.: Not Otherwise Specified
 OECD : Organization for Economic Co-operation and Development
 OEL : Occupational Exposure Limit
 P-Statement : Precautionary Statement
 PBT : Persistent , Bioaccumulative and Toxic
 PPE : Personal Protective Equipment
 STEL : Short-term exposure limit
 STOT : Specific Target Organ Toxicity
 TLV : Threshold Limit Value
 TWA : Time-weighted average
 vPvB : Very Persistent and Very Bioaccumulative
 WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
 DOT : Department of Transportation
 FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
 HMIRC : Hazardous Materials Information Review Commission
 HMIS : Hazardous Materials Identification System
 NFPA : National Fire Protection Association
 NIOSH : National Institute for Occupational Safety and Health
 OSHA : Occupational Safety and Health Administration
 PMRA : Health Canada Pest Management Regulatory Agency
 RTK : Right to Know
 WHMIS : Workplace Hazardous Materials Information System