

Valvoline[™] RESTORE & PROTECT FULL SYNTHETIC 0W-20 Motor Oil

Version: 2.0	Revision Date: 12/11/2023	Print Date: 02/06/2024
SECTION 1. IDENTIFICATION		
Product name	: Valvoline™ RESTORE & PROTECT FULL SYNTH 20 Motor Oil	ETIC 0W-
Product code	: 904538	
Manufacturer or supplier's	details	
Company name of supplier	: Valvoline Global Operations	
Address	: 100 Valvoline Way Lexington, KY 40509 United States of America (USA)	
Telephone	: 1-800-TEAMVAL (1-800-832-6825)	
E-mail address	: SDS@valvolineglobal.com	
Emergency telephone number	: +1-800-VALVOLINE (+1-800-825-8654)	

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a hazardous substance or mixture.

GHS label elements

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture



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Components

Chemical name	CAS-No.	Concentration (% w/w)
DISTILLATES (PETROLEUM),	64742-54-7	>= 50 - < 60
HYDROTREATED HEAVY		
PARAFFINIC		
DISTILLATES (PETROLEUM),	64742-54-7	>= 30 - < 40
HYDROTREATED HEAVY		
PARAFFINIC		

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	Do not leave the victim unattended.
If inhaled	:	If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.
In case of eye contact	:	Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. 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.
		Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	:	High volume water jet



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Hazardous combustion products	: carbon dioxide and carbon monoxide		
Further information	: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to l circumstances and the surrounding environment.	ocal	
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighti necessary.	ng if	

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8. Use personal protective equipment.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
Conditions for safe storage	:	Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components CAS-No. Value type Control Basis	



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		(Form of exposure)	parameters / Permissible concentration	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA (Inhalable particulate matter)	5 mg/m3	ACGIH

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required.
Eye protection	:	Safety glasses
Skin and body protection	:	Protective suit
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Odour	:	No data available
Odour Threshold	:	No data available
рН	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	394 - 480 °F / 201 - 249 °C



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Evaporation rate	:	No data available	
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	:	No data available	
Relative vapour density	:	No data available	
Relative density	:	No data available	
Density	:	0.842 g/cm3	
Solubility(ies) Water solubility	:	No data available	
Solubility in other solvents	:	No data available	
Partition coefficient: n- octanol/water	:	No data available	
Decomposition temperature	:	No data available	
Viscosity Viscosity, dynamic	:	No data available	
Viscosity, kinematic	:	44.1 mm2/s (104 °F / 40 °C)	
Oxidizing properties	:	No data available	

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No decomposition if stored and applied as directed.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	: None known.



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Incompatible materials	: Strong oxidizing agents	
Hazardous decomposition products	: No hazardous decomposition products are known.	
ECTION 11. TOXICOLOGICAL	INFORMATION	
Acute toxicity Not classified based on avai	able information.	
Components:		
DISTILLATES (PETROLEU	M), HYDROTREATED HEAVY PARAFFINIC:	
Acute oral toxicity	: LD50 (Rat): > 15 g/kg	
Acute dermal toxicity	: LD50 (Rabbit): > 5 g/kg	
DISTILLATES (PETROLEU	M), HYDROTREATED HEAVY PARAFFINIC:	
Acute oral toxicity	: LD50 (Rat): > 15 g/kg	
Acute dermal toxicity	: LD50 (Rabbit): > 5 g/kg	
Skin corrosion/irritation Not classified based on avai	able information.	
Components:		
DISTILLATES (PETROLEU	M), HYDROTREATED HEAVY PARAFFINIC:	
Assessment Result	Slight, transient irritationSlight, transient irritation	
DISTILLATES (PETROLEU	M), HYDROTREATED HEAVY PARAFFINIC:	
Assessment Result	Slight, transient irritationSlight, transient irritation	
Serious eye damage/eye ir	itation	
Not classified based on avai	able information.	
Components:		
•	M), HYDROTREATED HEAVY PARAFFINIC:	
Result Assessment	No eye irritationNo eye irritation	
•	M), HYDROTREATED HEAVY PARAFFINIC:	
Result	: No eye irritation	



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Assessment

: No eye irritation

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

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

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Carcinogenicity Assessment	· · · · ·	Classified based on DMSO extract content < (EC) 1272/2008, Annex VI, Part 3, Note L)	3% (Regulation
IARC		genic to humans um), solvent-dewaxed heavy paraffinic eated or mildly treated)	64742-65-0
OSHA	•	this product present at levels greater than or regulated carcinogens.	equal to 0.1% is
NTP		an carcinogen eum), solvent-dewaxed heavy paraffinic reated and Mildly Treated)	64742-65-0

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.



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Components:

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

May be fatal if swallowed and enters airways.

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

No aspiration toxicity classification

Further information

Product:

Remarks

: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity		
Product:		
Ecotoxicology Assessment Acute aquatic toxicity	:	Not classified based on available information.
Chronic aquatic toxicity	:	Not classified based on available information.
Components:		
	ъ. н.	
•		
DISTILLATES (PETROLEUM Toxicity to fish		IYDROTREATED HEAVY PARAFFINIC: LL50 (Fish): > 100 mg/l Exposure time: 96 h

Toxicity to algae/aquatic plants	:	EL50 (Algae, algal mat (Algae)): > 100 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	:	NOEC (Fish): 10 mg/l
	:	NOEC (Aquatic invertebrates): 10 mg/l

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified based on available information.



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Chronic aquatic toxicity	:	Not classified based on available information.	
DISTILLATES (PETROLEUM)), H	IYDROTREATED HEAVY PARAFFINIC:	
Toxicity to fish	:	LL50 (Fish): > 100 mg/l Exposure time: 96 h	
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Aquatic invertebrates): > 10,000 mg/l Exposure time: 48 h	
Toxicity to algae/aquatic plants	:	EL50 (Algae, algal mat (Algae)): > 100 mg/l Exposure time: 72 h	
Toxicity to fish (Chronic	:	NOEC (Fish): 10 mg/l	
toxicity) Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Aquatic invertebrates): 10 mg/l	
Ecotoxicology Assessment			
Acute aquatic toxicity	:	Not classified based on available information.	
Chronic aquatic toxicity	:	Not classified based on available information.	
Persistence and degradabilit No data available	ty		
Bioaccumulative potential			
Components:			
DISTILLATES (PETROLEUM) Partition coefficient: n- octanol/water), H :	IYDROTREATED HEAVY PARAFFINIC: log Pow: Expected > 7	
Mobility in soil No data available			
Other adverse effects			
Product:			
Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part Protection of Stratospheric Ozone - CAA Section 602 Substances Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defin U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A	2 Class I ed by the



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		В).	
Additional ecological information	:	No data available	
SECTION 13. DISPOSAL CON	SIDE	RATIONS	
Disposal methods			
Contaminated packaging	:	Empty containers should be taken to an approve handling site for recycling or disposal.	ed waste
SECTION 14. TRANSPORT IN	FORM	IATION	
International Regulations	i i		
UNRTDG Not regulated as a danger	ous go	od	
IATA-DGR Not regulated as a dangero	us goo	od	
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

49 CFR Not regulated as a dangerous good

Special precautions for user

Not applicable

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

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.



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SARA 302 Extremely Haza This material does not conta			-	-	
SARA 311/312 Hazards	:	No SARA Hazards	S		
SARA 313	:	The following com established by SA			evels
		Zinc O,O,O',O'- tetrakis(1,3- dimethylbutyl) bis(phosphorodit hioate	2215-35-2	>= 0.1 - < 7	1 %
		Zinc, bis[O,O- bis(2-ethylhexyl) phosphorodithioa to-S,S']-, (T-4)-	4259-15-8	>= 0.1 - < 7	1 %
		PHOSPHORODI THIOIC ACID, MIXED O,O- BIS(1,3- DIMETHYLBUTY L AND ISO-PR) ESTERS, ZINC SALTS	84605-29-8	< 0.1 %	

Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act



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ersion: 2.0	Revision Date: 12/11/2023		Print Date: 02/06/2024
US State Regu	llations		
Massachusett	s Right To Know		
	ILLATES (PETROLEUM), HYDROTREATED HEAVY AFFINIC	64742-54-7	
Pennsylvania	Right To Know		
PAR	ILLATES (PETROLEUM), HYDROTREATED HEAVY AFFINIC	64742-54-7	
PAR	ILLATES (PETROLEUM), HYDROTREATED HEAVY AFFINIC PRIETARY SUBSTANCE OF HITEC 11188 -	64742-54-7	d
	00276110	Not Assigne	u
Zinc bis(p	O,O,O',O'-tetrakis(1,3-dimethylbutyl) hosphorodithioate	2215-35-2	
	lates, petroleum, solvent-refined heavy paraffinic	64741-88-4	
	lates (petroleum), solvent-dewaxed heavy paraffinic bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (T-	64742-65-0 4259-15-8	
DIST HEA	TILLATES (PETROLEUM), SOLVENT-DEWAXED VY PARAFFINIC	64742-65-0	
DIME	SPHORODITHIOIC ACID, MIXED O,O-BIS(1,3- ETHYLBUTYL AND ISO-PR) ESTERS, ZINC SALTS	84605-29-8	
DIPF	IENYLAMINE	122-39-4	
	als of High Concern		
PAR	TILLATES (PETROLEUM), HYDROTREATED HEAVY	64742-54-7	
DIME	SPHORODITHIOIC ACID, MIXED O,O-BIS(1,3- ETHYLBUTYL AND ISO-PR) ESTERS, ZINC SALTS	84605-29-8	
DIPH	IENYLAMINE	122-39-4	
	nicals of High Concern		
PAR	TILLATES (PETROLEUM), HYDROTREATED HEAVY AFFINIC	64742-54-7	
	SPHORODITHIOIC ACID, MIXED O,O-BIS(1,3- ETHYLBUTYL AND ISO-PR) ESTERS, ZINC SALTS	84605-29-8	
DIPH	IENYLAMINE	122-39-4	
-	hemicals of High Concern		
PAR	TILLATES (PETROLEUM), HYDROTREATED HEAVY	64742-54-7	
DIME	SPHORODITHIOIC ACID, MIXED O,O-BIS(1,3- ETHYLBUTYL AND ISO-PR) ESTERS, ZINC SALTS	84605-29-8	
		122-39-4	
DIST	of Hazardous Substances TILLATES (PETROLEUM), HYDROTREATED HEAVY AFFINIC	64742-54-7	
.,	-		



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Californ	a Permissible Exposu	re Limits for Chemical Contaminants	
	DISTILLATES (PETRO PARAFFINIC	DLEUM), HYDROTREATED HEAVY 64	4742-54-7
		DLEUM), HYDROTREATED HEAVY 64	4742-54-7
The com	ponents of this produ	ct are reported in the following inventorie	es:
TCSI	:	On the inventory, or in compliance with the	e inventory
TSCA	:	All substances listed as active on the TSC	A inventory
AIIC	:	On the inventory, or in compliance with the	e inventory
DSL	:	All components of this product are on the	Canadian DSL
ENCS	:	On the inventory, or in compliance with the	e inventory
KECI	:	On the inventory, or in compliance with the	e inventory
PICCS	:	On the inventory, or in compliance with the	e inventory
IECSC	:	On the inventory, or in compliance with the	e inventory
NZIoC	:	On the inventory, or in compliance with the	e inventory

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Inventories

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

SECTION 16. OTHER INFORMATION

Further information

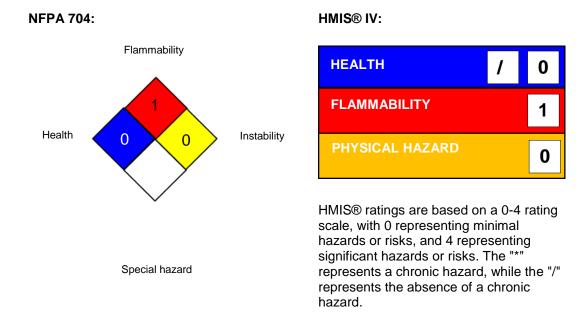


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Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1
		Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL -Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS -Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 -Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships: MSHA - Mine Safety and Health Administration: n.o.s. - Not Otherwise Specified: NFPA -National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration;



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NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD -Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS -Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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Internal information : 000000281016