



**SAFETY DATA SHEET**  
Valvoline™ FULL SYNTHETIC SAE 5W-20  
Motor Oil

Version: 1.10

Revision Date: 02/26/2020

Print Date:  
06/04/2021

29 CFR 1910.1200 (OSHA HazCom 2012)

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

**Product identifier**

Trade name : Valvoline™ FULL SYNTHETIC SAE 5W-20  
Motor Oil  
Product code : 881493

<b>Details of the supplier of the safety data sheet</b> Valvoline LLC 100 Valvoline Way Lexington, KY 40509 United States of America (USA) 1-800-TEAMVAL (1-800-832-6825)  SDS@valvoline.com	<b>Emergency telephone number</b> 1-800-VALVOLINE (1-800-825-8654)  <b>Regulatory Information Number</b> 1-800-TEAMVAL (1-800-832-6825)  <b>Product Information</b> 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	>=80.00 - < 90.00
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	Not a hazardous substance or mixture.	>=1.50 - < 5.00



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Actual concentration is withheld as a trade secret

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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.

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**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 (CO<sub>2</sub>)  
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
- Specific extinguishing methods :

Product is compatible with standard fire-fighting agents.



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Further information : Standard procedure for chemical fires.

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 further leakage or spillage if safe to do so.

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.

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 concentration	Basis
Lubricating Oils (Petroleum), C20-50, Hydrotreated Neutral Oil-Based	72623-87-1	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable particulate matter	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3	NIOSH REL



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			Mist	
		ST	10 mg/m3 Mist	NIOSH REL
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC	64742-54-7	TWA	5 mg/m3 Mist	OSHA Z-1
		TWA	5 mg/m3 Inhalable particulate matter	ACGIH
		TWA	5 mg/m3 Mist	OSHA P0
		TWA	5 mg/m3 Mist	NIOSH REL
		ST	10 mg/m3 Mist	NIOSH REL
		PEL	5 mg/m3 particulate	CAL PEL

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

Hygiene measures : General industrial hygiene practice.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid  
 Odour : No data available  
 Odour Threshold : No data available



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pH	:	No data available
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	430 °F / 221 °C Method: Cleveland open cup
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Self-ignition	:	No data available
Upper explosion limit / Upper flammability limit	:	6 %(V) Calculated Explosive Limit
Lower explosion limit / Lower flammability limit	:	1 %(V) Calculated Explosive Limit
Vapour pressure	:	0.0133333 hPa (70.00 °F / 21.11 °C) Calculated Vapor Pressure
Relative vapour density	:	No data available
Relative density	:	0.861
Density	:	0.854 g/cm <sup>3</sup>
Solubility(ies)		
Water solubility	:	negligible
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	:	48.1 mm <sup>2</sup> /s (104 °F / 40 °C)
Oxidizing properties	:	No data available

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**SECTION 10. STABILITY AND REACTIVITY**



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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 : None known.

Incompatible materials : Strong oxidizing agents

Hazardous decomposition products : No hazardous decomposition products are known.

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**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  
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.

**DISTILLATES (PETROLEUM), 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 available information.

**Components:**

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

Species : Rabbit



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Result : No skin irritation

**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

Assessment : Slight, transient irritation

Result : Slight, transient irritation

**Serious eye damage/eye irritation**

Not classified based on available information.

**Product:**

Remarks : Unlikely to cause eye irritation or injury.

**Components:**

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

Species : Rabbit

Result : No eye irritation

**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

Result : No eye irritation

Assessment : No eye irritation

**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.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**Components:**

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

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

**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

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

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.



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**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**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.

**Components:**

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

May be fatal if swallowed and enters airways.

**DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:**

No aspiration toxicity classification

**Further information**

**Product:**

Remarks : No data available

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**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Not classified based on available information.

Long-term (chronic) aquatic hazard : Not classified based on available information.

**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



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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 aquatic invertebrates (Chronic toxicity)	: NOEL (Daphnia (water flea)): 10 mg/l Exposure time: 21 d Test substance: WAF Method: OECD Test Guideline 211
<b>DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:</b>	
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	: EL50 (Algae, algal mat (Algae)): > 100 mg/l Exposure time: 72 h
Toxicity to fish (Chronic toxicity)	: NOEC (Fish): 10 mg/l
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Aquatic invertebrates): 10 mg/l
Ecotoxicology Assessment Short-term (acute) aquatic hazard	: Not classified based on available information.
Long-term (chronic) aquatic hazard	: Not classified based on available information.

**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

No data available



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**Bioaccumulative potential**

**Components:**

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC:

Partition coefficient: n- : log Pow: Expected > 7  
octanol/water

No data available

**Mobility in soil**

**Components:**

No data available

**Other adverse effects**

No data available

**Product:**

Additional ecological : No data available  
information

**Components:**

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**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

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

Contaminated packaging : Empty remaining contents.

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**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**

**49 CFR**

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.



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**SECTION 15. REGULATORY INFORMATION**

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**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.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**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 : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

IECSC : q (quantity restricted)

PICCS : On the inventory, or in compliance with the inventory

TCSI : On the inventory, or in compliance with the inventory

TSCA : On TSCA Inventory

**TSCA list**

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

**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)

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**SECTION 16. OTHER INFORMATION**



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**Further information**

Internal information : R0376125

<p><b>NFPA:</b></p> <div style="text-align: center;"> <p>Flammability</p> <p>Health      Instability</p> <p>Special hazard</p> </div>	<p><b>HMIS III:</b></p> <table border="1" style="width: 100%;"> <tr> <td style="background-color: blue; color: white;"><b>HEALTH</b></td> <td style="text-align: center;"><b>0</b></td> </tr> <tr> <td style="background-color: red; color: white;"><b>FLAMMABILITY</b></td> <td style="text-align: center;"><b>1</b></td> </tr> <tr> <td style="background-color: yellow;"><b>PHYSICAL HAZARD</b></td> <td style="text-align: center;"><b>0</b></td> </tr> </table> <p>0 = not significant, 1 =Slight,        2 = Moderate, 3 = High        4 = Extreme, * = Chronic</p>	<b>HEALTH</b>	<b>0</b>	<b>FLAMMABILITY</b>	<b>1</b>	<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>HEALTH</b>	<b>0</b>						
<b>FLAMMABILITY</b>	<b>1</b>						
<b>PHYSICAL HAZARD</b>	<b>0</b>						

**NFPA Flammable and Combustible Liquids Classification**  
 Combustible Liquid Class IIIB

**Full text of H-Statements**

H304                                      May be fatal if swallowed and enters airways.

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



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

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