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| | Print Date: 10/29/201 |
| | SDS Number: R017312 |
| Valvoline™ VR1™ SAE 20W-50 Motor Oil | Version: 1. |
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29 CFR 1910.1200 (OSHA HazCom 2012) SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

:

Product identifier

Trade name

Valvoline™ VR1™ SAE 20W-50 Motor Oil

| Details of the supplier of the safety data | Emergency telephone number |
|--|----------------------------------|
| sheet | 1-800-VALVOLINE (1-800-825-8654) |
| Valvoline LLC | |
| 100 Valvoline Way | Regulatory Information Number |
| Lexington, KY 40509 | 1-800-TEAMVAL (1-800-8326-825) |
| United States of America (USA) | |
| 1-800-TEAMVAL (1-800-8326-825) | Product Information |
| | 1-800-TEAMVAL (1-800-8326-825) |
| | |
| | |

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

GHS label elements

This material is not considered hazardous under the OSHA Hazard Communication Standard (HazCom 2012).

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Defatter

Hazardous components

| Chemical name | CAS-No. | Classification | Concentration (%) |
|---|------------|--|-------------------|
| Mineral Oil | | Asp. Tox. 1; H304 | 5.698 |
| Lubricating oils (petroleum), hydrotreated | 64742-58-1 | This material is considered hazardous under the OSHA Hazard | 1.8686 |



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| | | Communication Standard criteria, based on hazard(s) not otherwise classified. | |
|---|------------|--|--------|
| Distillates (Petroleum), Hydrotreated Heavy Paraffinic | 64742-54-7 | Asp. Tox. 1; H304 | 1.1396 |

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 : Acute aspiration of large amounts of oil-laden material may and effects, both acute and produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of delayed long-term sequelae. Repeated aspiration of small quantities of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities. Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: acne stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways) : No hazards which require special first aid measures. Notes to physician



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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 (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 nitrogen oxides (NOx) |
| Specific extinguishing methods | : | |
| | | Product is compatible with standard fire-fighting agents. |
| 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 b from area of spill until clean-up has been complete | |
|---|---|--------------|
| 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, si acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. | lica gel, |
| 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. |



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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 | Control | Basis |
|---|------------|------------|-------------------------------|-----------|
| | | (Form of | parameters / | |
| | | exposure) | Permissible | |
| | | | concentration | |
| Lubricating oils (petroleum), hydrotreated | 64742-58-1 | TWA | 5 mg/m3 Inhalable fraction | ACGIH |
| Distillates (Petroleum), Hydrotreated Heavy Paraffinic | 64742-54-7 | TWA | 5 mg/m3 Mist | OSHA Z-1 |
| | | TWA | 5 mg/m3 Inhalable fraction | 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 |

Hazardous components without workplace control parameters

| Components | CAS-No. |
|---|---|
| Mineral Oil | |
| 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 resistant gloves (consult your safety equipment supplier). |



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Wear as appropriate: Safety shoes

Hygiene measures

: General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Physical state | liquid | |
|-------------------------------------|---|------------|
| Colour | amber | |
| Odour | mild | |
| Odour Threshold | No data available | |
| рН | No data available | |
| Melting point/freezing point | No data available | |
| Boiling point/boiling range | 600.01 °F / 315.56 °C (1,013.333333 hPa) Calculated Phase Transition I > 390 °F / > 199 °C | Liquid/Gas |
| Flash point | Method: closed cup | |
| Evaporation rate | No data available | |
| Flammability (solid, gas) | No data available | |
| Upper explosion limit | 7 %(V) GLP: Calculated Explosive Li | mit |
| Lower explosion limit | 0.9 %(V) GLP: Calculated Explosive Li | mit |
| Vapour pressure | 0.1 hPa (20 °C) Calculated Vapor Pressure | |
| Relative vapour density | No data available | |
| Relative density | 0.8880 (15.56 °C) | |
| Density | 0.8816 g/cm3 (15.56 °C) | |
| Solubility(ies) Water solubility | negligible | |



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| Solubility in other solvents | : No data available |
|--|---------------------|
| Partition coefficient: n- octanol/water | : No data available |
| Thermal decomposition | : No data available |
| Viscosity Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : 182 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 | : None known. |
| Incompatible materials | : Strong oxidizing agents |
| Hazardous decomposition products | carbon dioxide and carbon monoxide Hydrocarbons Nitrogen oxides (NOx) |

SECTION 11. TOXICOLOGICAL INFORMATION

| Information on likely routes of exposure | : Inhalation Skin contact Eye Contact Ingestion |
|---|--|
| Acute toxicity Not classified based on availab | le information. |
| Components: | |
| Lubricating oils (petroleum), hy | drotreated: |
| Acute oral toxicity | LD50 (Rat): > 2,000 mg/kg Assessment: Not classified as acutely toxic by ingestion under GHS. |



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Acute dermal toxicity

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

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. <u>Components:</u> Lubricating oils (petroleum), hydrotreated:

Result: No skin irritation

Result: Repeated exposure may cause skin dryness or cracking.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic: Result: Slight, transient irritation

Serious eye damage/eye irritation

Not classified based on available information. <u>Product:</u> Remarks: Unlikely to cause eye irritation or injury.

Components:

Lubricating oils (petroleum), hydrotreated: Result: Slight, transient irritation

Distillates (Petroleum), Hydrotreated Heavy Paraffinic: Result: 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. **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



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Components:

Mineral Oil: May be fatal if swallowed and enters airways.

Distillates (Petroleum), Hydrotreated Heavy Paraffinic: May be fatal if swallowed and enters airways.

Further information <u>Product:</u> Remarks: No data available

| Carcinogenicity: 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 identified as a carcinogen or potential carcinogen by OSHA. |
| 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. |

SECTION 12. ECOLOGICAL INFORMATION

| Ecotoxicity <u>Product:</u> Ecotoxicology Assessment Acute aquatic toxicity | : Not classified based on available information. |
|--|--|
| Chronic aquatic toxicity | : Not classified based on available information. |
| <u>Components:</u> Lubricating oils (petroleum), hy Toxicity to daphnia and other aquatic invertebrates | ydrotreated: : LC50 (Brine shrimp (Artemia salina)): > 22,500 mg/l Exposure time: 48 h |
| Ecotoxicology Assessment Chronic aquatic toxicity | : No toxicity at the limit of solubility |
| Distillates (Petroleum), Hydrot Toxicity to fish | reated Heavy Paraffinic: : 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 |



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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 |
| Persistence and degradabilit No data available Bioaccumulative potential No data available Mobility in soil No data available Other adverse effects No data available <u>Product:</u> Additional ecological information | : No data available | |

SECTION 13. DISPOSAL CONSIDERATIONS

| Disposal n | nethods |
|------------|---------|
|------------|---------|

| General advice | : | Dispose of in accordance with all applicable local, state and federal regulations. |
|------------------------|---|--|
| Contaminated packaging | : | Empty remaining contents. |

SECTION 14. TRANSPORT INFORMATION

International transport regulations

REGULATION

| ID NUMBER | PROPER SHIPPING NAME | *HAZARD CLASS | SUBSIDIARY HAZARDS | PACKING GROUP | MARINE POLLUTANT / |
|-----------|----------------------|------------------|-----------------------|------------------|-----------------------|
| | | | | | LTD. QTY. |

U.S. DOT - ROAD

| Not dangerous goods |
|---------------------|
| |

CFR_RAIL_C

| Not | dangerous | goods |
|-----|-----------|-------|
| | | |

U.S. DOT - INLAND WATERWAYS

Not dangerous goods



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TDG_ROAD_C

Not dangerous goods

TDG_RAIL_C

Not dangerous goods

TDG_INWT_C

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

MX_DG

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Marine pollutant

no

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

EPCRA - Emergency Planning and Community Right-to-Know Act CERCLA Reportable Quantity

| CENCER Reportable Quantity | | | |
|----------------------------|-----------|--------------|-----------------------|
| Components | CAS-No. | Component RQ | Calculated product RQ |
| | | (lbs) | (lbs) |
| ZINC | 7440-66-6 | 1000 | * |

*: Calculated RQ exceeds reasonably attainable upper limit.

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 311/312 Hazards | : No SARA Hazards | | |
|---|---|------------|--------|
| SARA 313 | Zinc O,O,O',O'- tetrakis(1,3-dimethylbutyl) bis(phosphorodithioate | 2215-35-2 | 0.61 % |
| | ZINC DIALKYL DITHIOPHOSPHATE | 68649-42-3 | 0.47 % |
| | PHOSPHORODITHIOIC ACID, MIXED O,O- BIS(1,3-DIMETHYLBUTYL AND ISO-PR) ESTERS, ZINC SALTS | 84605-29-8 | 0.36 % |
| California Prop 65 The components of this produ DSL | This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm. f this product are reported in the following inventories: : All components of this product are on the Canadian DSL | | |
| AICS | Not 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 | | |
| PICCS | Not in compliance with the inventory | | |
| IECSC | 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)

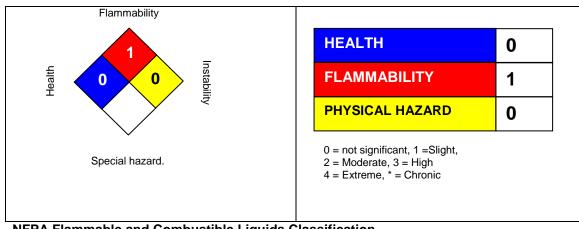
SECTION 16. OTHER INFORMATION

Further information

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| NFPA: HMIS III: |
|-----------------|
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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

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"



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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

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