		Page: 1
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

29 CFR 1910.1200 (OSHA HazCom 2012)

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Trade name : Valvoline™ Palladium™ #2 WITH MOLY GREASE

Recommended use of the chemical and restrictions on use

Details of the supplier of the safety data sheet Valvoline LLC 3499 Blazer Parkway Lexington, KY 40509 United States of America SDS@valvoline.com	Emergency telephone number 1-800-VALVOLUME Regulatory Information Number 1-800-TEAMVAL Product Information 1-800-TEAMVAL
---	--

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin sensitization : Category 1

GHS Label element


Hazard pictograms :



Signal Word : Warning

Hazard Statements : May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**
Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves.
Response:
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/ attention.
Wash contaminated clothing before reuse.
Disposal:
Dispose of contents/ container to an approved waste disposal

		Page: 2
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS


Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Classification	Concentration (%)
RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED	64742-62-7	Not a hazardous substance or mixture.	85.00
PROPRIETARY CORROSION INHIBITOR		Skin Sens. 1; H317	0.99

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	: May cause an allergic skin reaction. Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways)

		Page: 3
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

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
- 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 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 : 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.

		Page: 4
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

Conditions for safe storage : Electrical installations / working materials must comply with the technological safety standards.

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
RESIDUAL OILS (PETROLEUM), SOLVENT- DEWAXED	64742-62-7	PEL	500 ppm 2,000 mg/m ³	OSHA_TRA NS
		REL	5 mg/m ³ Mist.	NIOSH/GUID E
		STEL	10 mg/m ³ Mist.	NIOSH/GUID E
		PEL	5 mg/m ³ Mist.	OSHA_TRA NS

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 : paste

		Page: 5
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

Physical state : liquid

Colour : grey

Odour : mild

Odour Threshold : No data available

pH : No data available

: No data available

Boiling point/boiling range : > 700 °F / > 371 °C

Flash point : > 399 °F / > 204 °C

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : < 1 mmHg (37.78 °C)

Relative vapour density : No data available

Relative density : No data available

Density : 0.9 g/cm³ (20 °C)

Solubility(ies)

Water solubility : No data available

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 : > 1,000 mm²/s (40 °C)

Oxidizing properties : No data available

		Page: 6
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

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.
Incompatible materials	: Strong oxidizing agents
Hazardous decomposition products	carbon dioxide and carbon monoxide

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:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

Acute oral toxicity : LD 50 (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 : LD 50 (Rabbit): > 5,000 mg/kg
Remarks: No mortality observed at this dose.

LD 50 (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:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

Species: Rabbit

Result: Not irritating to skin

		Page: 7
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

Species: Rabbit

Result: Not irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Components:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

Test Type: Buehler Test

Species: Guinea pig

Assessment: Does not cause skin sensitisation.

PROPRIETARY CORROSION INHIBITOR:

Assessment: May cause sensitisation by skin contact.

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.

Components:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

No aspiration toxicity classification

Further information

Product:

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

	Page: 8
SAFETY DATA SHEET	Revision Date: 07/31/2016
	Print Date: 11/3/2016
	SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112	Version: 1.5

by NTP.

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:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

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)): Calculated >= 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

Persistence and degradability

Components:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED:

Biodegradability : Result: Not readily biodegradable.

		Page: 9
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

Biodegradation: 2 - 4 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Bioaccumulative potential

Components:

No data available

Mobility in soil

Components:

No data available

Other adverse effects

No data available

Product:

Additional ecological information : No data available

Components:

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.

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

		Page: 10
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE		Version: 1.5
VV70112		

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

SARA 311/312 Hazards : Acute Health Hazard

SARA 313 Component(s) : 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.

Pennsylvania Right To Know

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED	64742-62-7	70.00 - 90.00 %
---	------------	-----------------

	Page: 11
SAFETY DATA SHEET	Revision Date: 07/31/2016
	Print Date: 11/3/2016
	SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112	Version: 1.5

NONHAZARDOUS COMPONENTS Not Assigned 20.00 - 30.00 %

NONHAZARDOUS COMPONENTS Not Assigned 1.00 - 5.00 %

New Jersey Right To Know

RESIDUAL OILS (PETROLEUM),
SOLVENT-DEWAXED 64742-62-7 70.00 - 90.00 %

NONHAZARDOUS COMPONENTS Not Assigned 20.00 - 30.00 %

NONHAZARDOUS COMPONENTS Not Assigned 1.00 - 5.00 %

California Prop 65

Proposition 65 warnings are not required for this product based on the results of a risk assessment.

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

TSCA : On TSCA Inventory

DSL : This product contains one or several components that are not on the Canadian DSL and have annual quantity limits.

AICS : Not in compliance with the inventory

ENCS : Not in compliance with the inventory


KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

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

Inventories

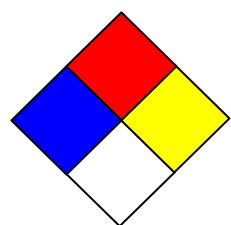
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

	Page: 12
SAFETY DATA SHEET	Revision Date: 07/31/2016
	Print Date: 11/3/2016
	SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112	Version: 1.5

SECTION 16. OTHER INFORMATION

Further information

Revision Date: 07/31/2016

NFPA:	HMIS III:						
<p style="text-align: center;">Flammability</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 10px;">Health</div>  <div style="writing-mode: vertical-rl; margin-left: 10px;">Instability</div> </div> <p style="text-align: center;">Special hazard.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="background-color: blue; color: white; text-align: center; padding: 5px;">HEALTH</td><td style="width: 50px;"></td></tr> <tr> <td style="background-color: red; color: white; text-align: center; padding: 5px;">FLAMMABILITY</td><td></td></tr> <tr> <td style="background-color: yellow; text-align: center; padding: 5px;">PHYSICAL HAZARD</td><td></td></tr> </table> <p style="font-size: small; margin-top: 10px;"> 0 = not significant, 1 = Slight, 2 = Moderate, 3 = High 4 = Extreme, * = Chronic </p>	HEALTH		FLAMMABILITY		PHYSICAL HAZARD	
HEALTH							
FLAMMABILITY							
PHYSICAL HAZARD							

NFPA Flammable and Combustible Liquids Classification

Combustible Liquid Class IIIB

Full text of H-Statements referred to under sections 2 and 3.

H317 May cause an allergic skin reaction.

Further information

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 (1-800-825-8654).

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

		Page: 13
SAFETY DATA SHEET		Revision Date: 07/31/2016
		Print Date: 11/3/2016
		SDS Number: R0211744
Valvoline™ Palladium™ #2 WITH MOLY GREASE VV70112		Version: 1.5

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