

VALVOLINE® PREMIUM STARTING
FLUID
602373

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland	Regulatory Information Number	1-800-325-3751
P.O. Box 2219	Telephone	614-790-3333
Columbus, OH 43216	Emergency telephone	1-800-ASHLAND (1-800-274-5263)

Product name VALVOLINE® PREMIUM STARTING FLUID

Product code 602373
Product Use Description No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol,, colourless

WARNING! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CONTENTS UNDER PRESSURE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. CAUSES EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye Contact

Eye contact

Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the

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body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation

Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: Skin, lung (for example, asthma-like conditions)

Symptoms

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), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), high blood pressure, effects on heart rate, effects on breathing rate

Target Organs

Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans.

Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard

This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

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Hazardous Components	CAS-No.	Concentration
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	64742-89-8	>=60-<70%
ETHYL ETHER	60-29-7	>=20-<30%
CARBON DIOXIDE	124-38-9	>=1.5-<5%

4. FIRST AID MEASURES**Eyes**

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

Skin

Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.

Treatment: No information available.

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5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water mist, Carbon dioxide (CO2), Dry chemical

Hazardous combustion products

Aldehydes, carbon dioxide and carbon monoxide, organic compounds, Hydrocarbons

Precautions for fire-fighting

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IA

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

Environmental precautions

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred.

Methods for cleaning up

Absorb liquid on vermiculite, floor absorbent or other absorbent material.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be

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observed. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. DO NOT puncture or incinerate container.

Storage

Do not store near extreme heat, open flame, or sources of ignition. Maximum recommended storage temperature 50 degrees C (122 degrees F). Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC 64742-89-8

OSHA Z1	time weighted average	500 ppm
ACGIH	time weighted average	300 ppm
ACGIH	time weighted average	1,370 mg/m3
ETHYL ETHER		60-29-7
ACGIH	time weighted average	400 ppm
ACGIH	Short term exposure limit	500 ppm
OSHA Z1	Permissible exposure limit	400 ppm
OSHA Z1	Permissible exposure limit	1,200 mg/m3
CARBON DIOXIDE		124-38-9
ACGIH	time weighted average	5,000 ppm
ACGIH	Short term exposure limit	30,000 ppm
NIOSH	Recommended exposure limit (REL):	5,000 ppm
NIOSH	Recommended exposure limit (REL):	9,000 mg/m3
NIOSH	Short term exposure limit	30,000 ppm
NIOSH	Short term exposure limit	54,000 mg/m3
OSHA Z1	Permissible exposure limit	5,000 ppm
OSHA Z1	Permissible exposure limit	9,000 mg/m3

General advice

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These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure controls

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.

Eye protection

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	aerosol
Form	aerosol
Colour	colourless
Odour	ether-like
Boiling point/boiling range	34.60 °C @ 1,013.23 hPa Calculated Phase Transition Liquid/Gas
pH	No data

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Flash point	-45.00 °C Calculated Flash Point
Evaporation rate	No data
Lower explosion limit/Upper explosion limit	1.05 %(V) / 36.5 %(V)
Vapour pressure	717.261 hPa @ 25 °C Calculated Vapor Pressure
Vapour density	No data
Density	0.706 g/cm3 @ 60.01 °F / 15.56 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Heat, flames and sparks.

Incompatible products

halogens, Strong oxidizing agents

Hazardous decomposition products

Aldehydes, carbon dioxide and carbon monoxide, organic compounds, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC	: LD 50 Rat: > 8,000 mg/kg
ETHYL ETHER	: LD 50 Rat: 3,230 - 3,920 mg/kg

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CARBON DIOXIDE : no data available

Acute inhalation toxicity

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : LC 50
Rat: 3400 ppm, 4 h
ETHYL ETHER : LC 50
Rat: 32,000 mg/l, 4 h
CARBON DIOXIDE : no data available

Acute dermal toxicity

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : LD 50
Rat:
> 4,000 mg/kg
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

12. ECOLOGICAL INFORMATION

Biodegradability

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Bioaccumulation

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Ecotoxicity effects

Toxicity to fish

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Toxicity to daphnia and other aquatic invertebrates.

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

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Toxicity to algae

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Toxicity to bacteria

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Biochemical Oxygen Demand (BOD)

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Chemical Oxygen Demand (COD)

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

Additional ecological information

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

REGULATION

ASHLAND

SAFETY DATA SHEET

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Page: 10
Revision Date: 01/14/2010
Print Date: 1/22/2010
MSDS Number: R0340955
Version: 3.0

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
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U.S. DOT - ROAD

	ORM-D, CONSUMER COMMODITY	ORM			
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U.S. DOT - RAIL

	ORM-D, CONSUMER COMMODITY	ORM			
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U.S. DOT - INLAND WATERWAYS

	ORM-D, CONSUMER COMMODITY	ORM			
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TRANSPORT CANADA - ROAD

UN	1950	AEROSOLS	2.1		LIMITED QUANTITY
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TRANSPORT CANADA - RAIL

UN	1950	AEROSOLS	2.1		LIMITED QUANTITY
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TRANSPORT CANADA - INLAND WATERWAYS

UN	1950	AEROSOLS	2.1		LIMITED QUANTITY
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INTERNATIONAL MARITIME DANGEROUS GOODS

UN	1950	AEROSOLS	2.1		LIMITED QUANTITY
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

UN	1950	Aerosols, flammable (engine starting fluid)	2.1		
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

UN	1950	Aerosols, flammable (engine starting fluid)	2.1		
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MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

UN	1950	AEROSOLS	2		
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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.

15. REGULATORY INFORMATION**California Prop. 65**

WARNING! This product contains a chemical known in the State of California to cause cancer. BENZENE

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm. BENZENE
TOLUENE

SARA Hazard Classification

Acute Health Hazard

Fire Hazard

Sudden Release of Pressure Hazard

New Jersey RTK Label Information

n-HEPTANE

142-82-5

ETHYL ETHER

60-29-7

CARBON DIOXIDE

124-38-9

Pennsylvania RTK Label Information

n-HEPTANE

142-82-5

ETHYL ETHER

60-29-7

CARBON DIOXIDE

124-38-9

Notification status

EU. EINECS

y (positive listing)

US. Toxic Substances Control Act

y (positive listing)

Australia. Industrial Chemical (Notification and Assessment)
Act

y (positive listing)

Canada. Canadian Environmental Protection Act (CEPA).

y (positive listing)

Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)

Japan. Kashin-Hou Law List

n (Negative listing)

Korea. Toxic Chemical Control Law (TCCL) List

y (positive listing)

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Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act y (positive listing)
China. Inventory of Existing Chemical Substances y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand y (positive listing)

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302) 340 lbs

Reportable quantity-Components

ETHYL ETHER 60-29-7 100 lbs

	HMIS	NFPA
Health	2	1
Flammability	4	4
Physical hazards	0	
Instability		0
Specific Hazard	--	--

16. OTHER INFORMATION

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 MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).