

ASHLAND
SAFETY DATA SHEET

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Print Date: 2/26/2009
MSDS Number: R0335211
Version: 1.1

VALVOLINE® FUEL INJECTOR &
CARB CLEANER
3503

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION 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® FUEL INJECTOR & CARB CLEANER
Product code	3503
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: liquid,, light yellow

CAUTION! COMBUSTIBLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Routes of exposure

Inhalation, Skin absorption, Skin contact, Eye Contact, Ingestion

Eye contact

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

Skin contact

Can cause skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, burns and other skin damage.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

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Inhalation

Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. Individuals with preexisting heart disorders maybe more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions), liver, central nervous system, male reproductive system, auditory system, respiratory tract, kidney, immune system, eye. Individuals with erythrocyte glucose-6-phosphate dehydrogenase deficiency are particularly susceptible to hemolytic agents and rapidly develop hemolytic anemia from ingestion or inhalation of this material (or a component).

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: redness of the skin, sweating, Fever, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), lung irritation, discomfort in the chest, central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, effects on memory, Abdominal pain, frequent or painful urination, respiratory depression (slowing of the breathing rate), shortness of breath, loss of coordination, confusion, irregular heartbeat, blood abnormalities (breakage of red blood cells), narcosis (dazed or sluggish feeling), kidney damage, lung damage, convulsions, respiratory failure, coma

Target Organs

This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. The significance of this effect with respect to human health is uncertain. 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. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: testis damage, kidney damage, liver damage, cataracts, anemia, nasal damage, eye damage, central nervous system damage, effects on hearing. Overexposure to this material (or its components) has been suggested

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as a cause of the following effects in humans:, central nervous system effects, cataracts, effects on hearing, eye damage

Carcinogenicity

Ethylbenzene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. The International Agency for Research on Cancer (IARC) has classified ethylbenzene as a possible human carcinogen. This product (or a component) is a petroleum-derived material. Similar materials and certain compounds occurring naturally in petroleum oils have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal.

Reproductive hazard

This material (or a component) may be harmful to the human fetus based on positive test results with laboratory animals.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Concentration
MINERAL SPIRITS REGULAR (BASE DATA)	8052-41-3	<=100%
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	64742-47-8	>=30-<40%
TRIMETHYLBENZENE 1,2,4-	95-63-6	>=5-<10%
TRIMETHYLBENZENE, 1,3,5-	108-67-8	>=5-<10%
XYLENE	1330-20-7	>=1.5-<5%
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC	64742-94-5	>=1.5-<5%
ETHYL BENZENE	100-41-4	>=0.5-<1%

4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

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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. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 2 - Swallowing) when deciding whether to induce vomiting. Inhalation or ingestion of high levels of this material (or a component) may cause a hemolytic reaction. Complications of acute intravascular hemolysis include anemia, leukocytosis, fever, hemoglobinuria, jaundice, renal insufficiency, and sometimes disturbances in liver function.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Dry chemical, Water spray, Alcohol-resistant foam
Dry chemical, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, various hydrocarbons

Precautions for fire-fighting

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If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. 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). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

Flammability Class for Flammable Liquids
Combustible Liquid Class II

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.

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Other information

Suppress (knock down) gases/vapours/mists with a water spray jet. Comply with all applicable federal, state, and local regulations.

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 observed. Static ignition hazard can result from handling

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and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

MINERAL SPIRITS REGULAR (BASE DATA) 8052-41-3

OEL (QUE)	time weighted average	100 ppm
OEL (QUE)	time weighted average	525 mg/m3
CAD AB OEL	time weighted average	100 ppm
CAD AB OEL	time weighted average	572 mg/m3
CAD BC OEL	time weighted average	290 mg/m3
CAD BC OEL	Short term exposure limit	580 mg/m3
CAD ON OEL	time weighted average	525 mg/m3
OEL (QUE)	time weighted average	100 ppm
OEL (QUE)	time weighted average	525 mg/m3

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT 64742-47-8

CAD BC OEL	time weighted average	200 mg/m3	Non-aerosol
CAD ON OEL	time weighted average	525 mg/m3	
CAD ON OEL	time weighted average	200 mg/m3	

TRIMETHYLBENZENE 1,2,4- 95-63-6

CAD AB OEL	time weighted average	25 ppm
CAD AB OEL	time weighted average	123 mg/m3
CAD BC OEL	time weighted average	25 ppm
CAD ON OEL	time weighted average	25 ppm
CAD ON OEL	time weighted average	123 mg/m3
OEL (QUE)	time weighted average	25 ppm
OEL (QUE)	time weighted average	123 mg/m3

TRIMETHYLBENZENE, 1,3,5- 108-67-8

CAD AB OEL	time weighted average	25 ppm
CAD AB OEL	time weighted average	123 mg/m3
CAD BC OEL	time weighted average	25 ppm
CAD ON OEL	time weighted average	25 ppm
CAD ON OEL	time weighted average	123 mg/m3
OEL (QUE)	time weighted average	25 ppm

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OEL (QUE)	time weighted average	123 mg/m3
XYLENE		1330-20-7
CAD AB OEL	time weighted average	100 ppm
CAD AB OEL	time weighted average	434 mg/m3
CAD AB OEL	Short term exposure limit	150 ppm
CAD AB OEL	Short term exposure limit	651 mg/m3
CAD BC OEL	time weighted average	100 ppm
CAD BC OEL	time weighted average	0.5 ppm
		Vapor and aerosol, inhalable
CAD BC OEL	Short term exposure limit	150 ppm
CAD ON OEL	time weighted average	100 ppm
CAD ON OEL	time weighted average	435 mg/m3
CAD ON OEL	Short term exposure limit	150 ppm
CAD ON OEL	Short term exposure limit	650 mg/m3
OEL (QUE)	time weighted average	100 ppm
OEL (QUE)	time weighted average	434 mg/m3
OEL (QUE)	Short term exposure limit	150 ppm
OEL (QUE)	Short term exposure limit	651 mg/m3

General advice

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 such as:

Nitrile rubber

Viton (R)

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

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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	liquid
Form	No data
Colour	light yellow
Odour	mild
Boiling point/boilingrange	157.22 °C / 315.00 °F
pH	No data
Flash point	113 °F / 45 °C, Closed Cup
Evaporation rate	No data
Explosion limits	0.6 %(V) 7 %(V)
Vapour pressure	2.66 hPa @ 68 °F / 20 °C
Vapour density	No data
Density	0.796 g/cm3 @ 59 °F / 15 °C
	No data
Solubility	No data
Partition coefficient: n-octanol/water	No data
Autoignition temperature	No data

10. STABILITY AND REACTIVITY

Stability
Stable.

Conditions to avoid

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Incompatible products

strong oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, various hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

MINERAL SPIRITS REGULAR (BASE DATA)	LD 50 Rat: > 5 g/kg
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	LD 50 Rat: > 8,000 mg/kg
TRIMETHYLBENZENE 1,2,4-	LD 50 Rat: 6 g/kg
TRIMETHYLBENZENE, 1,3,5-	LD 50 Rat: > 5,000 mg/kg
XYLENE	LD 50 Rat: 4,300 mg/kg
SOLVENT NAPHTHA (PETROLEUM), HEAVY AROMATIC	LD 50 Rat: 3,000 mg/kg
ETHYL BENZENE	LD 50 Rat: 3,500 mg/kg

Acute inhalation toxicity

DISTILLATES (PETROLEUM), HYDROTREATED LIGHT	LD 50 Rat: > 2500 ppm, 4 h
TRIMETHYLBENZENE 1,2,4-	LC 50 Rat: 18 g/m3 , 4 h

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SOLVENT NAPHTHA (PETROLEUM), LC 50 Rat: > 3,800 mg/m³ , 4 h
HEAVY AROMATIC

ETHYL BENZENE LC Lo Rat: 4000 ppm, 4 h

Acute dermal toxicity

MINERAL SPIRITS REGULAR (BASE LD 50 Rabbit: > 3 g/kg
DATA)

DISTILLATES (PETROLEUM), LD 50 Rabbit: > 4,000 mg/kg
HYDROTREATED LIGHT

XYLENE LD 50 Rabbit: > 2,000 mg/kg

SOLVENT NAPHTHA (PETROLEUM), LD 50 Rabbit: > 3,000 mg/kg
HEAVY AROMATIC

ETHYL BENZENE LD 50 Rabbit: 15,433 mg/kg

12. ECOLOGICAL INFORMATION

Aquatic toxicity

Acute and Prolonged Toxicity to Fish

No data

Acute Toxicity to Aquatic Invertebrates

No data

Environmental fate and pathways

No data

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

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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

Dangerous goods descriptions (if indicated above) may not reflect package size, 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

WHMIS Classification B3 Combustible Liquid
 D2B Toxic Material Causing Other Toxic Effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

	Health	Flammability	Reactivity	Other
HMIS	2*	2	0	
NFPA	2	2	0	

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).