

VALVOLINE® BRAKE PARTS
CLEANER 681046

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING
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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® BRAKE PARTS CLEANER
Product code	681046
Product Use Description	No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol

WARNING! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. MAY BE HARMFUL IF INHALED. HARMFUL IF SWALLOWED. MAY CAUSE BLINDNESS. MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY SKIN, CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes

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

Ingestion

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Swallowing this material 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

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), blood-forming system, Liver, kidney, Central nervous system, pancreas, Heart, auditory system, male reproductive system

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 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, muscle cramps, pain in the abdomen and lower back, Blurred vision, Shortness of breath, discomfort in the chest, redness of the skin, high blood sugar, respiratory depression (slowing of the breathing rate), Lack of coordination, confusion, irregular heartbeat, narcosis (dazed or sluggish feeling), cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness), coma

Target Organs

Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage., This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals., Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory

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animals; blood abnormalities, central nervous system damage, cardiac sensitization, kidney damage, effects on hearing, testis damage, liver damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans; visual impairment, central nervous system effects

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.

Reproductive hazard

Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain., 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
ACETONE	67-64-1	>=70-<80%
XYLENE	1330-20-7	>=5-<10%
METHANOL	67-56-1	>=5-<10%
CARBON DIOXIDE	124-38-9	>=5-<10%
ETHYL BENZENE	100-41-4	>=1.5-<5%

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.

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

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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, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Notes to physician

Hazards: 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. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. 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.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Dry chemical, Carbon dioxide (CO₂)

Hazardous combustion products

carbon dioxide and carbon monoxide, Hydrocarbons, Aldehydes

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

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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). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. 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

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. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

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

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

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

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given in the data sheet must be observed. Static ignition hazard can result from handling 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, away from incompatible substances.

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

ACETONE		67-64-1
ACGIH	time weighted average	500 ppm
ACGIH	Short term exposure limit	750 ppm
NIOSH	Recommended exposure limit (REL):	250 ppm
NIOSH	Recommended exposure limit (REL):	590 mg/m3
OSHA Z1	Permissible exposure limit	1,000 ppm
OSHA Z1	Permissible exposure limit	2,400 mg/m3
XYLENE		1330-20-7
ACGIH	time weighted average	100 ppm
ACGIH	Short term exposure limit	150 ppm
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	435 mg/m3
NIOSH	Recommended exposure limit (REL):	100 ppm
NIOSH	Recommended exposure limit (REL):	435 mg/m3
NIOSH	Short term exposure limit	150 ppm
NIOSH	Short term exposure limit	655 mg/m3
METHANOL		67-56-1
ACGIH	time weighted average	200 ppm
ACGIH	Short term exposure limit	250 ppm
NIOSH	Recommended exposure limit (REL):	200 ppm
NIOSH	Recommended exposure limit (REL):	260 mg/m3
NIOSH	Short term exposure limit	250 ppm

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NIOSH	Short term exposure limit	325 mg/m3
OSHA Z1	Permissible exposure limit	200 ppm
OSHA Z1	Permissible exposure limit	260 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	5,000 ppm
	(REL):	
NIOSH	Recommended exposure limit	9,000
	(REL):	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

ETHYL BENZENE

100-41-4

ACGIH	time weighted average	100 ppm
ACGIH	Short term exposure limit	125 ppm
NIOSH	Recommended exposure limit	100 ppm
	(REL):	
NIOSH	Recommended exposure limit	435 mg/m3
	(REL):	
NIOSH	Short term exposure limit	125 ppm
NIOSH	Short term exposure limit	545 mg/m3
OSHA Z1	Permissible exposure limit	100 ppm
OSHA Z1	Permissible exposure limit	435 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.

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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.

Wear resistant gloves (consult your safety equipment supplier).

Discard gloves that show tears, pinholes, or signs of wear.

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	No data
Colour	No data
Odour	No data
Boiling point/boiling range	-78.50 °C / -109.3 °F
pH	No data
Flash point	-4 °F / -20 °C
Evaporation rate	No data
Explosion limits	1 %(V) 36 %(V)
Vapour pressure	64,393.56 hPa @ 77 °F / 25 °C
Vapour density	No data
Density	0.756 g/cm ³ @ 70.0 °F / 21.1 °C
Solubility	No data
Partition coefficient: n-octanol/water	No data
log Pow	no data available
Autoignition temperature	No data

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10. STABILITY AND REACTIVITY

Stability

Stable.

Conditions to avoid

Heat, flames and sparks.

Incompatible products

Acids, alkalis, Amines, Ammonia, halogens, peroxides, Reducing agents, Strong oxidizing agents, aluminum, calcium hypochlorite, hypochlorites, Lead, Peroxides, sodium, Zinc

Hazardous decomposition products

carbon dioxide and carbon monoxide, formaldehyde, Hydrocarbons

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity

ACETONE	LD 50 Rat: 5,800 mg/kg
XYLENE	LD 50 Rat: 4,300 mg/kg
METHANOL	LD L0 Human: 300 mg/kg
CARBON DIOXIDE	no data available
ETHYL BENZENE	LD 50 Rat: 3,500 mg/kg

Acute inhalation toxicity

ACETONE	LC 50 Rat: > 16000 ppm, 4 h
XYLENE	no data available

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METHANOL	LC 50 Rat: 64000 ppm, 4 h : ,
CARBON DIOXIDE	no data available
ETHYL BENZENE	LC Lo Rat: 4000 ppm, 4 h

Acute dermal toxicity

ACETONE	LD 50 Rabbit: > 20,000 mg/kg
XYLENE	LD 50 Rabbit: > 2,000 mg/kg
METHANOL	LD 50 Rabbit: 12,800 mg/kg
CARBON DIOXIDE	no data available
ETHYL BENZENE	LD 50 Rabbit: 17,800 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**

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**IMDG:**

UN1950, AEROSOLS 2.1,

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IATA_P:

UN1950, Aerosols, flammable 2.1,

IATA_C:

UN1950, Aerosols, flammable 2.1,

CFR_ROAD:

UN1950, Aerosols 2.1,

CFR_RAIL:

UN1950, Aerosols 2.1,

CFR_INWTR:

UN1950, Aerosols 2.1,

IMDG_ROAD:

UN1950, AEROSOLS 2.1,

IMDG_RAIL:

UN1950, AEROSOLS 2.1,

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.

ETHYL BENZENE

BENZENE

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

TOLUENE

BENZENE

SARA Hazard Classification

Fire Hazard

Sudden Release of Pressure Hazard

Acute Health Hazard

Chronic Health Hazard

SARA 313 Component(s)

XYLENE

1330-20-7

8.57%

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METHANOL	67-56-1	7.42%
ETHYL BENZENE	100-41-4	2.45%

New Jersey RTK Label Information

ACETONE	67-64-1
XYLENE	1330-20-7
METHANOL	67-56-1
CARBON DIOXIDE	124-38-9
ETHYL BENZENE	100-41-4

Pennsylvania RTK Label Information

ACETONE	67-64-1
XYLENE	1330-20-7
METHANOL	67-56-1
CARBON DIOXIDE	124-38-9
ETHYL BENZENE	100-41-4

Reportable quantity - Product

US. EPA CERCLA Hazardous Substances (40 CFR 302)	1166 lbs
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Reportable quantity - Components

ACETONE	67-64-1	5000 lbs
XYLENE	1330-20-7	100 lbs
METHANOL	67-56-1	5000 lbs
CARBON DIOXIDE	124-38-9	none
ETHYL BENZENE	100-41-4	1000 lbs

	Health	Flammability	Reactivity	Other
HMIS	2*	4	0	
NFPA	2	4	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).