

**Material Safety Data Sheet**

The Valvoline Company
Date Printed: 10/18/99
MSDS No: 503.0175958-003.001I
MAC'S 8700 CARB & CHOKE CLEANER CONC.

Date Prepared: 06/04/99

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**Material Identity**

Product Name: MAC'S 8700 CARB & CHOKE CLEANER CONC

General or Generic ID: MIXTURE-SOLVENTS

Company

The Valvoline Company
P.O. Box 14000
Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263
Information: 1-606-357-7847

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by volume)
TOLUENE	108-88-3	43.0
METHYL ALCOHOL	67-56-1	33.0
ACETONE	67-64-1	15.0- 25.0
DIACETONE ALCOHOL	123-42-2	0.0- 9.0

3. HAZARDS IDENTIFICATION**Potential Health Effects****Eye**

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.
Additional symptoms of eye exposure may include: blurred vision

Skin

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.

Swallowing

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 enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

Inhalation

Breathing of vapor or mist is possible.

Symptoms of Exposure

stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), and death.

Target Organ Effects

Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: liver abnormalities, anemia, spleen damage, nervous system damage, eye damage, kidney damage, lung damage, brain damage, Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans, and may aggravate preexisting disorders of these organs: liver abnormalities, eye damage Toluene may be harmful to the fetus based on laboratory animal studies. Intentional misuse by deliberate inhalation of toluene has been associated with liver, kidney and brain damage in humans. Repeated exposure to toluene has been associated with high frequency hearing loss based on evidence in laboratory animals; the human health consequences of this finding is uncertain.

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact.

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. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Call a physician or poison control center immediately for instructions. This material contains both methanol and petroleum distillates. Aspiration of material into the lungs due to vomiting can cause chemical pneumonitis which can be fatal.

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.

Note to Physicians

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.

5. FIRE FIGHTING MEASURES**Flash Point**

<.0 F (-17.7C)

Explosive Limit

(for component) Lower 1.2 Upper 36.5 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

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

Extinguishing Media

regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 2, Flammability - 3, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES**Small Spill**

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

Large Spill

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer

contaminated absorbent, soil and other materials to containers for disposal. 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.

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. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

Storage

Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection

Other protective equipment: not required under normal conditions of use., Wear resistant gloves such as: neoprene.

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

TOLUENE (108-88-3)

OSHA VPEL 100.000 ppm - TWA

OSHA VPEL 150.000 ppm - STEL

ACGIH TLV 50.000 ppm - TWA ((Skin))

ACGIH TLV 150.000 ppm - STEL ((Skin))

METHYL ALCOHOL (67-56-1)

OSHA VPEL 200.000 ppm - TWA ((Skin))

OSHA VPEL 250.000 ppm - STEL ((Skin))

ACGIH TLV 200.000 ppm - TWA ((Skin))

ACGIH TLV 250.000 ppm - STEL ((Skin))

ACETONE (67-64-I)

OSHA VPEL 750.000 ppm - TWA

OSHA VPEL 1000.000 ppm - STEL

ACGIH TLV 500.000 ppm - TWA

ACGIH TLV 750.000 ppm - STEL

DIACETONE ALCOHOL (123-42-2)

OSHA VPEL 50.000 ppm - TWA

ACGIH TLV 50.000 ppm - TWA

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 133.0 F (56.1 C) @ 760 mmHg

Vapor Pressure

(for component) 185.000 mmHg @ 68.00 F

Specific Vapor Density > 1.000

@ AIR=1

Specific Gravity

.780 @ 77.00 F

Liquid Density

6.480 lbs/gal @ 77.00 F

.780 kg/l @ 25.00 C

Percent Volatiles (Including Water)

100.0

Evaporation Rate

FASTER THAN ETHYL ETHER

Appearance

No data

State

LIQUID

Physical Form

HOMOGENEOUS SOLUTION

Color

CLEAR COLORLESS

Odor

No data

pH

Not applicable

10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability

Stable. Avoid heat, open flame, and prolonged storage at elevated temperatures.

Incompatibility

Avoid contact with: strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION**Waste Management Information**

Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION**DOT Information - 49 CFR 172.101****DOT Description:**

FLAMMABLE LIQUIDS, N. O. S., 3, UN 1993,II

Container/Mode:

DRUMS/SURFACE - NO EXCEPTIONS

NOS Component:

TOLUENE

ACETONE

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs)	Component
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2225	TOLUENE
16078	METHANOL
26388	ACETONE

15. REGULATORY INFORMATION**US Federal Regulations****TSCA (Toxic Substances Control Act) Status**

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4

Component	Component
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TOLUENE	1000
METHYL ALCOHOL	5000
ACETONE	5000

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate (X) Delayed (X) Fire (X) Reactive() Sudden Release of Pressure()

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number
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TOLUENE	108-88-3
METHANOL	67-56-1

International Regulations Inventory Status Not determined

State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.

TOLUENE

New Jersey RTK Label Information

TOLUENE	108-88-3
METHYL ALCOHOL	67-56-1
ACETONE	67-64-1
DIACETONE ALCOHOL	123-42-2

Pennsylvania RTK Label Information

BENZENE, METHYL-	108-88-3
METHANOL	67-56-1
2 - PROPANONE	67-64-1
2 - PENTANONE, 4 - HYDROXY- 4 - METHYL-	123-42-2

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.