



MATERIAL SAFETY DATA SHEET



EFFECTIVE DATE: 6-1-89

REVISION NUMBER: 1

QUAKER STATE CORPORATION • P.O. Box 989, Oil City, Pennsylvania 16301.

I. IDENTIFICATION

PRODUCT NAME: Quaker State 450 Super HD Brake Fluid

PRODUCT CODE: 67001 (32 oz.)
67003 (5 gal.)
67004 (55 gal. drum)
67041 (12 oz.)
67064 (1 gal.)
CHEMICAL FAMILY: Glycols, glycol ethers

CHEMICAL NAME: N/A

FORMULA: N/A

SYNONYMS: Brake Fluid

DEPARTMENT OF TRANSPORTATION: HAZARD CLASSIFICATION: Not hazardous under DOT 172.101 (See "Notes" page 4).
SHIPPING NAME: Hydraulic Brake Fluid IDENTIFICATION #: N/A

CAS #: Mixture

CAS NAME: Mixture

II. TYPICAL COMPOSITION

<u>MATERIAL</u>	<u>CAS #</u>	<u>% wt.</u>	<u>TLV (UNITS) (SOURCE)</u>	<u>HAZARD</u>
Diethylene Glycol	111-46-6	8	None established	Ingestion
Complex mixture of Glycols, Polyglycols, Glycol Ethers & Inhibitors*	Mixture	92	None established	Eyes, Skin

*We consider our blend of glycols to be proprietary information.

III. PHYSICAL DATA

<u>BOILING POINT, 760 mm. Hg:</u> 485° F (typical)	<u>PHYSICAL STATE:</u> Liquid
<u>SPECIFIC GRAVITY (H₂O = 1):</u> 1.021	<u>VAPOR PRESSURE AT 20°C.:</u> Very low
<u>VAPOR DENSITY (AIR = 1):</u> N/D	<u>SOLUBILITY IN WATER, % BY WT.:</u> 100%
<u>PER CENT VOLATILES BY VOLUME:</u> Negligible	<u>EVAPORATION RATE (Butyl Acetate = 1):</u> N/D
<u>APPEARANCE AND ODOR:</u> Clear liquid, mild odor.	

This information is, to the best of Quaker State Corporation's knowledge and belief, accurate and reliable. However, no representation, warranty, or guarantee is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

FOR FURTHER INFORMATION CALL: (814) 676-7876

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IV. HEALTH HAZARD DATATLV AND SOURCE:ACUTE EFFECTS OF OVEREXPOSURE

- SWALLOWING : Ingestion of small quantities not expected to be fatal, may cause nausea and diarrhea. LD₅₀ determined to be between 5 gm-10 gm/kg.
- SKIN ABSORPTION: No data available.
- INHALATION : Not expected to be more than mildly toxic by inhalation. Inhalation of mist could cause irritation and discomfort.
- SKIN CONTACT : Material expected to cause no more than minor skin irritation following prolonged and/or repeated contact.
- EYE CONTACT : May cause minor eye irritation.

CHRONIC EFFECTS OF OVEREXPOSURE

Repeated skin contact can result in hypersensitivity to product. Avoid prolonged or repeated contact by using chemically resistant gloves.

EMERGENCY AND FIRST AID PROCEDURES

- SWALLOWING : If material is swallowed, induce vomiting and contact a physician.
- SKIN : Wash skin thoroughly with soap and water. Launder soiled clothing.
- INHALATION : Although inhalation of this material is unlikely, if respiratory discomfort or irritation occurs due to inhalation of oil mist, move person to fresh air. Contact a physician if discomfort or irritation continues.
- EYES : Flush with water for 15 minutes. If irritation continues, contact a physician.

NOTES TO PHYSICIAN

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V. FIRE AND EXPLOSION HAZARD DATAFLASH POINT [test method(s)]: 298° F, minimum (COC)AUTO IGNITION TEMPERATURE: N/DFLAMMABLE LIMITS IN AIR, % BY VOLUME: N/AEXTINGUISHING MEDIA: CO₂, Dry Chemical, Foam, Water Fog. Water may be ineffective in fighting an oil fire unless used by experienced fire fighters.SPECIAL FIRE FIGHTING PROCEDURES: For small fires involving this material, no special procedure or precautions are necessary. For large storage fires involving this material and/or other lubricating products do not enter any enclosed or confined space without full protective equipment including self-contained breathing apparatus.UNUSUAL FIRE AND EXPLOSION HAZARDS: Containers may burst when exposed to fire conditions.
(See "Notes" page 4)**VI. REACTIVITY DATA**STABILITY: StableCONDITIONS TO AVOID: High temperatures and open flame.INCOMPATIBILITY (materials to avoid): Strong oxidizing agents.HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS: Carbon dioxide, water vapor. May produce oxides of sulphur, nitrogen and phosphorus. Incomplete combustion can produce carbon monoxide.HAZARDOUS POLYMERIZATION: Will not occur.CONDITIONS TO AVOID: None known**VII. SPILL OR LEAK PROCEDURES**STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Clean up spills as soon as possible. Absorb large spills with commercially available absorbent materials, such as absorbent clay.

WASTE DISPOSAL METHOD:

Place contaminated material in disposable containers and bury in an approved landfill site per local, state and federal regulations.

VIII. PERSONAL PROTECTION INFORMATIONRESPIRATORY PROTECTION (specify type): Not applicable for intended use.VENTILATION: None needed for intended use.PROTECTIVE GLOVES: Impervious protective gloves can minimize skin exposures where prolonged or repeated exposures can occur.EYE PROTECTION: Although none normally necessary for intended use, safety glasses or a face shield can reduce the possibility of accidental eye contact.OTHER PROTECTIVE EQUIPMENT: None normally necessary for intended use.

IX. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Do not store near high heat or open flames.

PRECAUTIONS DURING USE: 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.

X. REGULATORY INFORMATION

New York Fire Department considers all liquids with a flashpoint between 100°F and 300°F "Combustible" and requires special container labeling approval.

HAZARD IDENTIFICATION

NOTES

Approved by D. W. Cralley - Corporate Safety Coordinator