

MATERIAL SAFETY DATA SHEET

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SECTION 1 - PRODUCT IDENTIFICATION

Trade Name: CARQUEST DOT 4 Brake Fluid

Date Revised: May 13, 2010

**Synonyms: S.H.D., Super Heavy Duty Brake Fluid, Heavy Duty Brake Fluid
Chemical Name: DOT 4 Brake Fluid
DOT Hazard Class: Not Applicable**

NFPA Codes: Health=1, Flammability=1, Reactivity=0

SECTION 2 - COMPOSITION / INFORMATION ON HAZARDOUS INGREDIENTS

<u>Ingredient Name</u>	<u>CAS Number</u>	<u>Wt%</u>
Glycols	Trade Secret	0-100
Glycol Ethers	Trade Secret	0-100
Borate Ester	Trade Secret	0-100
Corrosion Inhibitor	Trade Secret	0-100

<u>Ingredient</u>	<u>OSHA PEL</u>		<u>ACGIH TLV</u>		<u>NIOSH REL</u>		<u>NIOSH</u>
	<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>STEL</u>	<u>TWA</u>	<u>STEL</u>	<u>IDLH</u>
Glycols	None Estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Glycol Ethers	None Estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Borate Ester	None Estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.
Corr. Inhibitor	None Estab.	None estab.	None estab.	None estab.	None estab.	None estab.	None estab.

SECTION 3 - HAZARDS IDENTIFICATION

DANGER! MAY BE HARMFUL OR FATAL IF SWALLOWED, CAUSE EYE IRRITATION, MAY CAUSE ALLERGIC SKIN REACTION!

<u>H M I S</u>	
<u>H</u>	<u>1</u>
<u>F</u>	<u>1</u>
<u>R</u>	<u>0</u>

ACUTE EFFECTS:

Inhalation: Vapors are mildly to markedly irritating to the lungs depending on the exposure level.

Eye: Causes severe irritation experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva.

Skin: No adverse effects expected with exposure to skin. Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause severe irritation and discomfort, seen as local redness and swelling.

Ingestion: Ingestion may be fatal. May cause abdominal discomfort, nausea, and vomiting. May produce central nervous system depression and kidney damage.

Carcinogenicity: This compound contains no ingredients at concentration of 0.1% or greater that are carcinogens or suspect carcinogens.

Medical Conditions Aggravated by Long-Term Exposure: Pre-existing skin, eye, and respiratory disorders may be aggravated by exposure to this product. Impaired kidney function from pre-existing disorders may be aggravated by exposure to this product.

Chronic Effects: Repeated exposure may result in drying of the skin and mucous membranes, causing irritation and dryness.

SECTION 4 - EMERGENCY FIRST AID PROCEDURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Skin Contact: Remove any contaminated clothing. Wash skin with soap and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before reuse.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5 - FIRE AND EXPLOSION DATA

NFPA Rating (Health, Fire, Reactivity): 1, 1, 0

Flash Point: >275°F (>135°C)

Flash Point Method: CC

Burning Rate: Not determined

Autoignition Temperature: Not determined

LEL: Not determined

UEL: Not determined

Flammability Classification: Slight to moderate fire hazard when exposed to heat or flames.

Extinguishing Media: Water fog, foam, dry chemical, carbon dioxide.

Unusual Fire or Explosion Hazards: None known.

Hazard Combustion Products: Carbon monoxide, carbon dioxide, and unidentified organic compounds.

Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

Fire-Fighting Equipment: Wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill / Leak Procedures: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Use non-sparking tools and equipment. Do not flush to sewer.

Small Spills: Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand) and place in a chemical waste container. Do not use combustible materials, such as sawdust.

Large Spills Containment: Wear respirator and protective clothing as appropriate. Shut off source of leak when safe to do so. For large spills, dike far ahead of liquid spill for later disposal. Do not release into sewers or waterways.

Clean-Up: Contain and recover liquid when possible. Collect liquid in appropriate container. Absorb residue with an inert material. Consult with your environmental department for detailed clean-up instructions.

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

SECTION 7 – HANDLING AND STORAGE

Handling Precautions: May be harmful or fatal if swallowed.

Storage Requirements: Store in a cool, dry, ventilated area. Separate from acids, bases, and oxidizing materials.

Regulatory Requirements: This product contains the following chemical(s) subject to the reporting requirements of SARA Title III Section 311, 312, and 313: Glycol Ethers.

SECTION 8 - PECIAL PROTECTION INFORMATION

Engineering Controls: Controls should be such that adequate ventilation is provided.

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Administrative Controls: Normal industrial requirements should be in place.

Respiratory Protection: Seek professional advise prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an SCBA. **Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.** If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing / Equipment: Wear chemically protective gloves, boots, aprons, and gauntlets to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles, per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of, or in conjunction with contact lenses.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid	Water Solubility:	Soluble
Appearance and Odor:	Yellow to amber liquid with a mild odor	Other Solubilities:	Not Available
Odor Threshold:	Not Determined	Boiling Point:	480°F (248.9°C)
Vapor Pressure:	Not Determined	Freezing/Melting Point:	Not Determined
Vapor Density (Air=1):	>1	Viscosity:	Not Determined
Formula Weight:	Mixture	Refractive Index:	Not Determined
Density:	8.33 to 9.02 lb/gal	Surface Tension:	Not Determined
Specific Gravity (H₂O=1, at 4°C):	1.000 to 1.070	% Volatile:	Not Determined
		Evaporation Rate (BuAc=1):	<0.01
		ph:	8.0 – 11.5

SECTION 10 - REACTIVITY DATA

Stability: DOT 3 Brake Fluid is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: None Known

Conditions to Avoid: None Known

Hazardous Decomposition Products: Thermal oxidative decomposition of DOT 3 Brake Fluid can produce carbon monoxide, carbon dioxide, and unknown organic compounds.

SECTION 11 – TOXICOLOGICAL INFORMATION

Eyes: Causes severe irritation experienced as discomfort or pain, excess blinking and tear production, with marked excess redness and swelling of the conjunctiva.

Skin: No adverse effects expected with exposure to skin. Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

Inhalation: Vapors are mildly to markedly irritating to the lungs depending on the exposure level.

Ingestion: Ingestion may be fatal. May cause abdominal discomfort, nausea, and vomiting. May produce central nerve system depression and kidney damage.

TOXICITY DATA*

Acute Inhalation Effects: Human, inhalation, TCLO: Data not available.

Acute Oral Effects: Rat, oral, LD50: Data not available

Chronic Effects: Data not available

Carcinogenicity: Not a listed carcinogen

Mutagenicity: Data not available

Teratogenicity: Data not available

*See NIOSH, RTECS for additional toxicity data.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: Data not available

Environmental Fate: Data not available

Environmental Degradation: Data not available

Soil Absorption/Mobility: Data not available

SECTION 13 – DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be disposed of in an approved waste facility in accordance with applicable Federal, State/Provincial and Local requirements.

SECTION 14 – TRANSPORT INFORMATION**DOT Transportation Data (49 CFR 172.101):**

Shipping Name: DOT 4 Brake Fluid

ID No.: Not Determined

Special Provisions (172.102): Not Applicable

Packaging Authorizations:

- a) **Exceptions:** Not Applicable
- b) **Non-Bulk Packaging:** Not Applicable
- c) **Bulk Packaging:** Not Applicable

Quantify Limitations:

- a) **Passenger, Aircraft, or Railcar:** No Limit
- b) **Cargo Aircraft Only:** No limit

Vessel Stowage Requirements:

- a) **Vessel Stowage:** None
- b) **Other:** None

Hazard Class: Non-Hazardous Liquid

Packing Group: Not Applicable

Shipping Symbols: Not Applicable

SECTION 15 – REGULATORY INFORMATION

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311(b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ) (40 CFR 302.4): None

SARA 311/312 (40 CFR 370): None

SARA 313 Toxic Chemical (40 CFR 372.65): glycol ethers

SARA 304 EHS (Extremely Hazardous Substance) (40 CFR 355): Not Listed

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1): Not Listed

OSHA Specifically Regulated Substance (29 CFR 1910): Not Listed

CALIFORNIA PROPOSITION 65 INGREDIENTS: NONE

SECTION 16 – OTHER INFORMATION

THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MAKE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABLENESS AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.