OCEAN® Network
EMERGENCY PHONE 1-800-OLIN-911

SAFETY DATA

PACKAGED BY: QUAKER SUPREME CHEMICAL CORP.

SECTION I - IDENTIFICATION

MSDS FILE 2443

CHEMICAL NAME & SYNONYMS Brake Fluid LWS 1050 (Page 1 of 2) CARQUEST DOT-4 BRAKE FLUID		
CHEMICAL FAMILY Glycol ether	FORMULA Mixture	PRODUCT OLIN LWS 1050
DESCRIPTION Brown to yellow liquid		CAS NO. Not assigned/mixture

SECTION II - NORMAL HANDLING PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Do not take internally. Avoid contact with eyes, skin or clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor. Store in a cool, dry, well-ventilated place. Avoid contact with strong oxidizers. *THE COMPONENTS OF LWS 1000 ARE NOT LISTED ON THE MASSACHUSETTS RIGHT TO KNOW LAW, OR ARE LISTED AT NON-REPORTABLE CONCENTRATIONS (LESS THAN 1.0%).

PROTECTIVE EQUIPMENT	VENTILATION REQUIREMENTS
EYES Safety glasses with side shields GLOVES None normally required OTHER None normally required	Local mechanical exhaust ventilation recommended to minimize employee exposure to mists or vapor.

SECTION III - HAZARDOUS INGREDIENTS

BASIC MATERIAL	OSHA PEL	LD50	LC50	SIGNIFICANT EFFECTS
*Glycol ether borate ester CAS No: Proprietary	None established	> 5 g/kg (oral-rat)	> 200 mg/l 1 hr. (rat)	May cause eye and mucous membrane irritation.
*Glycol ether CAS No: Proprietary	None established	> 5 g/kg (oral-rat)	> 200 mg/l 1 hr. (rat)	May cause eye and mucous membrane irritation.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 274°F (COC) METHOD	OSHA CLASSIFICATION Not regulated (non-ignitable)	FLAMMABLE EXPLOSIVE LIMIT	LOWER	UPPER
			ND	ND

EXTINGUISHING MEDIA Water spray should be used to cool fire exposed containers. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material

SPECIAL FIRE HAZARD & FIRE FIGHTING PROCEDURES Water spray should be used to cool fire exposed containers. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None established.

SYMPTOMS OF OVER EXPOSURE
May cause eye and mucous membrane irritation.

EMERGENCY FIRST-AID PROCEDURES

SKIN Immediately flush with water. Washing any substance off skin is a good safety practice.

EYES Immediately flush with water for 15 minutes, call a physician.

INGESTION Immediately drink large quantities of water to dilute.

INHALATION Immediately remove victim to fresh air. Call a physician.

PRODUCT CODE 088113 CHEMICAL NAME OLIN LWS 1050

SECTION VI - TOXICOLOGY (PRODUCT)

ACUTE ORAL LD 50 > 5 g/kg (rat) based on constituents.
ACUTE DERMAL LD 50 > 2 g/kg (rabbit) based on constituents.
ACUTE INHALATION LC 50
No available data

CARCINOGENICITY Not known to be carcinogenic
MUTAGENICITY Not known to be mutagenic
EYE IRRITATION May be an irritant
PRIMARY SKIN IRRITATION
Not an irritant

PRINCIPAL ROUTES OF ABSORPTION
Inhalation, ingestion, eye contact.

EFFECTS OF ACUTE EXPOSURE
May cause eye and mucous membrane irritation.

EFFECTS OF CHRONIC EXPOSURE
None known or reported.

SECTION VII - SPILL AND LEAKAGE PROCEDURES (CONTROL PROCEDURES)

ACTION FOR MATERIAL RELEASE OR SPILL
If material is spraying or misting, use a NIOSH/MSHA approved organic vapor respirator with dust/mist prefilter in addition to wearing goggles, impervious coveralls, gloves and boots. Follow OSHA regulations for repirator use (see 29 CFR 1910.134). Isolate area of spill by diking. Stop source of leak. Add dry absorbent, shovel or sweep up. Place in an appropriate container and seal. Wash all contaminated clothing before reuse. In the event of a large spill, call the emergency telephone number shown on the front of this sheet.

TRANSPORTATION EMERGENCY, CONTACT CHEMTREC 800-424-9300

THE MIXTURE OR TRADE NAME PRODUCT HEREIN CONTAINS A TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR 372. THE SARA 313 CHEMICALS ARE LISTED IN SECTION III AND ARE INDICATED BY AN ASTERISK (*).

SECTION VIII - SHIPPING DATA

D.O.T. Not regulated.

SECTION IX - REACTIVITY DATA

STABLE X UNSTABLE AT____C ____ F

HAZARDOUS POLYMERIZATION	MAY OCCUR
	WILL NOT OCCUR X

CONDITIONS TO AVOID
High temperatures
INCOMPATIBILITY(MATERIAL TO AVOID)
Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS
Carbon monoxide, Carbon dioxide

SECTION X - PHYSICAL DATA

MELTING POINT *See below	VAPOR PRESSURE < 1 mm Hg	VOLATILES No data
BOILING POINT 500°F	SOLUBILITY IN WATER Soluble	EVAPORATION RATE No data
SPECIFIC GRAVITY(H2O=1) 1.07	PH 8.6	VAPOR DENSITY(AIR=1) No data
*POUR POINT: < -40°C		

INFORMATION: FURNISHED TO 75355011 FURNISHED BY Olin MSDS Control Group (203) 356-3449 DATE DECEMBER 21, 1989

ATTN: DEPT HANDLING MATL SAFETY DATA SHEETS
QUAKER SUPREME
P O BOX 77
MONTGOMERY AL 36101

Olin CORPORATION
120 Long Ridge Road, Stamford, Connecticut 06904
OCEAN® Network
EMERGENCY PHONE 1-800-OLIN-911

Olin

MATERIAL SAFETY DATA

QUAKER SUPREME CHEMICAL CORPORATION

OCEAN® Network
EMERGENCY PHONE 1-800-OLIN-911

SECTION I - IDENTIFICATION

MSDS FILE 2365

CHEMICAL NAME & SYNONYMS Brake Fluid LWS 1000 (Page 1 of 2) CARQUEST DOT-4 BRAKE FLUID		
CHEMICAL FAMILY Glycol ether	FORMULA Mixture	PRODUCT LWS 1000
DESCRIPTION Brown to yellow liquid		CAS NO. Not assigned/mixture

SECTION II - NORMAL HANDLING PROCEDURES

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Do not take internally. Avoid contact with eyes, skin or clothing. Upon contact with skin or eyes, wash off with water. Avoid breathing mist or vapor. Store in a cool, dry, well-ventilated place. Avoid contact with strong oxidizers. *THE COMPONENTS OF LWS 1000 ARE NOT LISTED ON THE MASSACHUSETTS RIGHT TO KNOW LAW, OR ARE LISTED AT NON-REPORTABLE CONCENTRATIONS (LESS THAN 1.0%)

PROTECTIVE EQUIPMENT	VENTILATION REQUIREMENTS
EYES Splash glasses with side shields GLOVES None normally required OTHER None normally required	Local mechanical exhaust ventilation recommended to minimize employee exposure to mists or vapor

SECTION III - HAZARDOUS INGREDIENTS

BASIC MATERIAL	OSHA PEL	LD50	LC50	SIGNIFICANT EFFECTS
*Glycol ether borate ester CAS No: Proprietary	None established	> 5 g/kg (oral-rat)	> 200 mg/l 4 hr (rat)	May cause eye and mucous membrane irritation
*Glycol ether CAS No: Proprietary	None established	> 5 g/kg (oral-rat)	> 200 mg/l 4 hr (rat)	May cause eye and mucous membrane irritation

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT 374°F (COC) METHOD	OSHA CLASSIFICATION Not regulated (non-ignitable)	FLAMMABLE EXPLOSIVE LIMIT	LOWER ND	UPPER ND

EXTINGUISHING MEDIA Water spray should be used to cool fire exposed containers. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material

SPECIAL FIRE HAZARD & FIRE FIGHTING PROCEDURES Water spray should be used to cool fire exposed containers. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when any material is involved in a fire.

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
None established.

SYMPTOMS OF OVER EXPOSURE
May cause eye and mucous membrane irritation

EMERGENCY FIRST-AID PROCEDURES

SKIN Immediately flush with water. Washing any substance off skin is a good safety practice.

EYES Immediately flush with water for 15 minutes. Call a physician.

INGESTION Immediately drink large quantities of water to dilute.

INHALATION Immediately remove victim to fresh air. Call a physician

PRODUCT CODE 082112 CHEMICAL NAME LWS 1000

SECTION VI - TOXICOLOGY (PRODUCT)

ACUTE ORAL LD 50
See page 1
ACUTE DERMAL LD 50
See page 1
ACUTE INHALATION LC 50
See page 1

CARCINOGENICITY See page 1
MUTAGENICITY See page 1
EYE IRRITATION See page 1
PRIMARY SKIN IRRITATION
See page 1

PRINCIPAL ROUTES OF ABSORPTION
See page 1

EFFECTS OF ACUTE EXPOSURE
See page 1

EFFECTS OF CHRONIC EXPOSURE
See page 1

SECTION VII - SPILL AND LEAKAGE PROCEDURES (CONTROL PROCEDURES)

ACTION FOR MATERIAL RELEASE OR SPILL
See page 1

TRANSPORTATION EMERGENCY CONTACT CHEMTREC 800-424-9300

See page 1

SECTION VIII - SHIPPING DATA

D.O.T. See page 1

SECTION IX - REACTIVITY DATA

STABLE UNSTABLE AT_____C _____ F

HAZARDOUS POLYMERIZATION: MAY OCCUR / WILL NOT OCCUR

CONDITIONS TO AVOID
See page 1
INCOMPATIBILITY(MATERIAL TO AVOID)
See page 1
HAZARDOUS DECOMPOSITION PRODUCTS
See page 1

SECTION X - PHYSICAL DATA

MELTING POINT See page 1	VAPOR PRESSURE See page 1	VOLATILES See page 1
BOILING POINT See page 1	SOLUBILITY IN WATER See page 1	EVAPORATION RATE See page 1
SPECIFIC GRAVITY(H2O=1) See page 1	PH See page 1	VAPOR DENSITY(AIR=1) See page 1

INFORMATION: FURNISHED TO 75385012 FURNISHED BY DATE AUGUST 31, 1988

ATTN: DEPT HANDLING MATL SAFETY DATA SHEETS
QUAKER SUPREME
433 SADLER ST
MONTGOMERY AL 36104

Olin MSDS Control Group
(203) 356-3449

Olin CORPORATION
120 Long Ridge Road, Stamford, Connecticut 06904
OCEAN® Network
EMERGENCY PHONE 1-800-OLIN-911

PROVIDED BY: QUAKER COMPANY CHEMICAL CORPORATION

MATERIAL SAFETY DATA SHEET

DOW CHEMICAL U.S.A.* MIDLAND, MI 48674 EMERGENCY PHONE 517-636-4400

PRODUCT CODE 11917 PAGE 1

PRODUCT NAME: BRAKE FLUID 920 CARQUEST DOT-4 BRAKE FLUID

EFFECTIVE DATE: 12/20/88 DATE PRINTED 02/09/89 MSD: 001142

1. INGREDIENTS (% W/W, UNLESS OTHERWISE NOTED)

PROPRIETARY MIXTURE OF GLYCOL ETHERS, POLYGLYCOLS, GLYCOLS, OXIDATION INHIBITORS, AND CORROSION INHIBITORS.

THIS DOCUMENT IS PREPARED PURSUANT TO THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200). IN ADDITION, OTHER SUBSTANCES NOT 'HAZARDOUS' PER THIS OSHA STANDARD MAY BE LISTED. WHERE PROPRIETARY INGREDIENT SHOWS, THE IDENTITY MAY BE MADE AVAILABLE AS PROVIDED IN THIS STANDARD.

2. PHYSICAL DATA

BOILING POINT: 470F, 248C
VAP PRESS: (MMHG @ 20C) LOW.
VAP DENSITY: NOT DETERMINED.
SOL. IN WATER: INFINITE
SP. GRAVITY: 1.055
APPEARANCE: CLEAR TO AMBER LIQUID.
ODOR: MILD ODOR.

3. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 250F, 121C
METHOD USED: PMCC

FLAMMABLE LIMITS
LFL: NOT DETERMINED.
UFL: NOT DETERMINED.

EXTINGUISHING MEDIA: WATER FOG, ALCOHOL-RESISTANT FOAM, CO2, DRY CHEMICAL.

FIRE & EXPLOSION HAZARDS: PRODUCT WILL BURN. BURNING WILL PRODUCE CARBON DIOXIDE, CARBON MONOXIDE, AND WATER.

FIRE-FIGHTING EQUIPMENT: WEAR POSITIVE-PRESSURE, SELF-CONTAINED BREATHING APPARATUS.

4. REACTIVITY DATA

STABILITY: (CONDITIONS TO AVOID) STABLE UNDER NORMAL STORAGE

(CONTINUED ON PAGE 2)
(R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

4. REACTIVITY DATA (CONTINUED)

CONDITIONS.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) STRONG OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSITION PRODUCTS NONE KNOWN.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION

ACTION TO TAKE FOR SPILLS/LEAKS DO NOT ALLOW TO CONTAMINATE GROUND WATER. SOAK UP WITH SUITABLE ABSORBENT MATERIAL AND SCOOP INTO DRUMS FOR DISPOSAL.

DISPOSAL METHOD BURN IN AN APPROVED INCINERATOR IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.

6. HEALTH HAZARD DATA

EYE: MAY CAUSE SLIGHT EYE IRRITATION.

SKIN CONTACT PROLONGED CONTACT IS ESSENTIALLY NONIRRITATING TO SKIN. REPEATED CONTACT MAY CAUSE DRYING OR FLAKING OF SKIN.

SKIN ABSORPTION: A SINGLE PROLONGED EXPOSURE IS NOT LIKELY TO RESULT IN THE MATERIAL BEING ABSORBED THROUGH SKIN IN HARMFUL AMOUNTS. THE LD50 FOR SKIN ABSORPTION IN RABBITS IS >2000 MG/KG.

INGESTION: SINGLE DOSE ORAL TOXICITY IS LOW. THE ORAL LD50 FOR RATS IS >5000 MG/KG. AMOUNTS INGESTED INCIDENTAL TO INDUSTRIAL HANDLING ARE NOT LIKELY TO CAUSE INJURY. HOWEVER INGESTION OF LARGER AMOUNTS MAY CAUSE INJURY.

INHALATION: VAPORS ARE UNLIKELY DUE TO PHYSICAL PROPERTIES.

SYSTEMIC & OTHER EFFECTS: NO DATA AVAILABLE FOR PRODUCT AS A WHOLE. FOR ONE OF THE COMPONENTS, TESTS HAVE BEEN PERFORMED AND IT HAS BEEN FOUND THAT BIRTH DEFECTS ARE UNLIKELY.

(CONTINUED ON PAGE 3)

(R) INDICATES A TRADEMARK OF THE DOW CHEMICAL COMPANY

* AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY