

MASTER AUTOM GROUP -- FADE FREE BRAKE FLUID
MATERIAL SAFETY DATA SHEET
NSN: 915000N082420
Manufacturer's CAGE: MAAUT
Part No. Indicator: A
Part Number/Trade Name: FADE FREE BRAKE FLUID

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General Information

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Company's Name: MASTER AUTOM GROUP
Company's P. O. Box: 381900
Company's City: GERMANTOWN
Company's State: TN
Company's Country: US
Company's Zip Code: 38138-1190
Company's Emerg Ph #: 901-755-6677;800-255-3924
Company's Info Ph #: 901-755-6677
Record No. For Safety Entry: 001
Tot Safety Entries This Stk#: 001
Status: SMJ
Date MSDS Prepared: 07JUL94
Safety Data Review Date: 23JAN98
MSDS Serial Number: CGNWS

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Ingredients/Identity Information

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Proprietary: NO
Ingredient: DIETHYLENE GLYCOL
Ingredient Sequence Number: 01
Percent: 10
NIOSH (RTECS) Number: ID5950000
CAS Number: 111-46-6
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Proprietary: NO

Ingredient: ETHANOL, 2-(2-ETHOXYETHOXY)-; (DIETHYLENE GLYCOL MONO ETHYL ETHER)
Ingredient Sequence Number: 02
Percent: 10
NIOSH (RTECS) Number: KK8750000
CAS Number: 111-90-0
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Proprietary: NO

Ingredient: ETHANOL, 2-(2-(2-ETHOXYETHOXY)ETHOXY)-; (TRIETHYLENE GLYCOL MONOETHYL ETHER)
Ingredient Sequence Number: 03
Percent: 20
NIOSH (RTECS) Number: KK8950000
CAS Number: 112-50-5
OSHA PEL: N/K (FP N)

ACGIH TLV: N/K (FP N)

Proprietary: NO
Ingredient: ETHANOL, 2-(2-BUTOXYETHOXY)-; (DIETHYLENE GLYCOL MONO BUTYL
ETHER)
Ingredient Sequence Number: 04
Percent: 10
NIOSH (RTECS) Number: KJ9100000
CAS Number: 112-34-5
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Proprietary: NO
Ingredient: ETHANOL, 2-(2-(2-BUTOXYETHOXY)ETHOXY)-; (TRIETHYLENE GLYCOL
MONO BUTYL ETHER)
Ingredient Sequence Number: 05
Percent: 20
NIOSH (RTECS) Number: KJ9450000
CAS Number: 143-22-6
OSHA PEL: N/K (FP N)
ACGIH TLV: N/K (FP N)

Proprietary: NO
Ingredient: EFTS OF OVEREXPOS: TRACT & LUNGS; SINGLE BRIEF EXPOS TO
FORMIC
ACID MAY CAUSE ADVERSE EFTS. SYSTEMIC EFTS: (ING 7)
Ingredient Sequence Number: 06
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 6: EXCESSIVE EXPOS MAY CAUSE IRRIT TO UPPER RESP TRACT.
OBSERVATIONS IN ANIMALS INCL KIDNEY & LIVER EFTS & (ING 8)
Ingredient Sequence Number: 07
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 7: DEPOSITION OF CALCIUM SALTS IN VARIOUS TISS AFTER
LONG-
TERM DIETARY INTAKE OF ETHYLENE GLYCOL. (ING 9)
Ingredient Sequence Number: 08
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 8: OBSERVATIONS IN ANIMAL INCL FORMATION OF BLADDER
STONES
AFTER RPTD ORAL DOSES OF DIETHYLENE GLYCOL. RPTD (ING 10)
Ingredient Sequence Number: 09
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 9: EXCESSIVE EXPOS TO FORMIC ACID MAY CAUSE KIDNEY
EFTS.
TERATOLOGY: BASED ON ANIMAL STUDIES, INGEST OF VERY(ING 11)
Ingredient Sequence Number: 10
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 10: LG AMTS OF ETHYLENE GLYCOL APPEARS TO BE MAJOR &
POSS
ONLY RTE OF EXPOS TO PROD BIRTH DEFECTS. EXPOS BY (ING 12)
Ingredient Sequence Number: 11
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 11: INHAL(TESTED NOSE-ONLY IN ANIMALS TO PVNT
INGEST)/SKIN
CONT PRIMARY RTES OF OCCUP EXPOS, HAD MIN/ESSNTLY(ING 13)
Ingredient Sequence Number: 12
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 12: NO EFT ON FETUS. BIRTH DEFECTS ARE UNLIKELY FROM
EXPOS
TO DIETHYLENE GLYCOL. EXPOS HAVING NO ADVERSE (ING 14)
Ingredient Sequence Number: 13
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 13: EFTS ON MOTHER SHOULD HAVE NO EFT ON FETUS. REPRO
EFTS: IN MICE STUDIES, ETHYLENE GLYCOL IN LG AMTS (ING 15)
Ingredient Sequence Number: 14
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: ING 14: CAUSED SM DECR IN NUMBER OF LITTERS/PAIR, LIVE
PUPS/
PAIR, & IN LIVE PUP WT.
Ingredient Sequence Number: 15
NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

Proprietary: NO
Ingredient: WORK HYGIENIC PRAC: SUCH AS SHOES, BELTS AND WATCHBANDS,
SHOULD BE REMOVED AND DESTROYED.
Ingredient Sequence Number: 16

NIOSH (RTECS) Number: 9999999ZZ
OSHA PEL: NOT APPLICABLE
ACGIH TLV: NOT APPLICABLE

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Physical/Chemical Characteristics

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Appearance And Odor: CLEAR, AMBER WITH SLIGHT ETHARIC ODOR.
Boiling Point: >460F,>238C
Vapor Pressure (MM Hg/70 F): <0.1 @ 20C
Specific Gravity: 1.036-1.04
Solubility In Water: COMPLETELY MISCIBLE

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Fire and Explosion Hazard Data

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Flash Point: 270F,132C
Flash Point Method: SCC
Extinguishing Media: WATER FOG, ALCOHOL-RESISTANT FOAM, CO*2, DRY
CHEMICAL.
Special Fire Fighting Proc: USE NIOSH APPROVED SCBA AND FULL PROTECTIVE
EQUIPMENT (FP N).
Unusual Fire And Expl Hazrds: NONE EXPECTED UNDER NORMAL STORAGE AND
HANDLING CONDITITIONS (I.E. AMBIENT TEMPERATURES)

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Reactivity Data

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Stability: YES
Cond To Avoid (Stability): STABLE UNDER NORMAL STORAGE CONDITIONS.
AVOID
TEMPERATURES IN EXCESS OF 300C.
Materials To Avoid: OXIDIZING MATERIAL.
Hazardous Decomp Products: BURNING PRODUCES CARBON DIOXIDE AND CARBON
MONOXIDE.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT RELEVANT

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Health Hazard Data

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LD50-LC50 Mixture: NONE SPECIFIED BY MANUFACTURER.
Route Of Entry - Inhalation: YES
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: YES
Health Haz Acute And Chronic: EYE: MAY CAUSE SEV IRRIT W/MOD CORNEAL
INJURY. VAPS/MISTS MAY IRRITATE. SKIN CONT: SHORT SINGLE EXPOS MAY
CAUSE
SEV IRRIT. SKIN ABSORPTION: SINGLE PRLGD EXPOS &/RPTD EXPOS MAY RSLT IN
MATL BEING ABSORBED IN HARMFUL AMTS. DERM LD50 NOT DETERM. INGEST:
SINGLE
DOSE ORAL TOX MOD. EXCESSIVE EXPOS MAY CAUSE(EFTS OF OVEREXP)
Carcinogenicity - NTP: NO

Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: NOT RELEVANT
Signs/Symptoms Of Overexp: HLTH HAZS: CNS SYS EFTS, CARDIOPULM EFTS
(METABOLIC ACIDOSIS), & KIDNEY FAILURE. INHAL: @ RM TEMP, VAPS OF
GLYCOLS
ARE MINIMAL DUE TO LOW VAP PRESS. IF HEATED/SPRAYED AS AN AEROSOL,
CONCS
MAY BE ATTAINED THAT ARE SUFFICIENT TO CAUSE IRRIT & OTHER EFTS. FORMIC
ACID, IF PRESENT, MAY CAUSE SEV IRRIT TO UPPER RESP (ING 6)
Med Cond Aggravated By Exp: NONE SPECIFIED BY MANUFACTURER.
Emergency/First Aid Proc: EYES: IMMED & CONTINUOUS IRRIGATION W/
FLOWING
WATER FOR @ LST 15 MINS IS IMPERATIVE. PROMPT MED CONSULTATION IS
ESSENTIAL. SKIN: IMMED FLUSH W/PLENTY OF WATER FOR @ LST 15 MINS WHILE
REMOVING CONTAM CLTHG & SHOES. CALL PHYS IF IRRIT PERSISTS. INGEST:
INDUCE
VOMIT IMMED AS DIRECTED BY MED PERS. NEVER GIVE ANYTHING BY MOUTH TO
UNCON
PERS. INHAL: REMOVE TO FRESH AIR IF EFTS OCCUR. CONSULT (SUPDAT)

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Precautions for Safe Handling and Use

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Steps If Matl Released/Spill: AVOID ENTRY INTO SEWERS AND NATURAL
WATERS.
SMALL SPILLS: SOAK UP WITH ABSORBENT MATERIAL. LARGE SPILLS: DIKE AND
PUMP
INTO SUITABLE CONTAINERS FOR DISPOSAL.
Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.
Waste Disposal Method: BURN IN AN APPROVED INCINERATOR IN ACCORDANCE
WITH
ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.
Precautions-Handling/Storing: WARNING! HARMFUL OR FATAL IF SWALLOWED.
MAY
BE HARMFUL IF INHALED. AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
AVOID
BREATHING VAPOR OR MIST.
Other Precautions: USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER
HANDLING. KEEP CONTAINER CLOSED AND CLEARLY LABELED. KEEP OUT OF REACH
OF
CHILDREN.

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Control Measures

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Respiratory Protection: ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW
THE
EXPOSURE GUIDELINE. WHEN RESPIRATORY PROTECTION IS REQUIRED FOR CERTAIN
OPERATIONS, USE A NIOSH APPROVED AIR PURIFYING RESPIRATOR.
Ventilation: PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO
CONTROL
AIRBORNE LEVELS BELOW THE EXPOSURE GUIDELINES.
Protective Gloves: IMPERVIOUS GLOVES (FP N).
Eye Protection: ANSI APPRVD CHEM WORKERS GOGGLES (FP N).

Label Zip Code: 38138-1190

Label Country: US

Label Emergency Number: 901-755-6677;800-255-3924