

MATERIAL SAFETY DATA SHEET

SECTION 01: CHEMICAL PRODUCT & COMPANY ID

PRODUCT PRIMARY NAME: UCON PM-6664
PLANT SYNONYMS: BRAKE FLUID - DELCO SUPREME 11
> GM PARTS DELCO SUPREME 11 BRAKE FLUID
> SUPREME II BRAKE FLUID
> 12377967
> 12377968
> **12378047**
> **12378048**
> 18023216

SAFE USE CATEGORY AND DESCRIPTION: 04 -METAL WORKING FLUIDS AND LUBRICANTS

LAST UPDATED DATE: 1995-06-08

MANUFACTURER'S ID (MID): 000551923
MANUFACTURER'S NAME: UNION CARBIDE CHEMICALS AND PLASTICS CO
MANUFACTURER'S EMERGENCY PHONE NUMBER/TEXT: US 800-822-4357

MANUFACTURER'S MAILING ADDRESS:
39 OLD RIDGEBURY ROAD
SOLVENTS & COATINGS MATERIAL DIV
DANBURY CT 06817-0001
US

CHEMICAL FAMILY NAME: GLYCOL ETHER/GLYCOL.
CHEMICAL NAME: GLYCOL/GLYCOL ETHER MIXTURE.

MOLECULAR FORMULA: NOT APPLICABLE.

SECTION 02: COMPOSITION & INGREDIENT INFO

CAS#	FORMULATION	W/V	CHEMICAL NAME
000112345	< 0.0000/ 5.0000%	W	ETHANOL, 2-(2-BUTOXYETHOXY)-
000112356	R 53.0000/ 58.0000%	W	ETHANOL, 2-(2-(2-METHOXYETHOXY)ETHOXY)-
000143226	R 7.0000/ 12.0000%	W	ETHANOL, 2-(2-(2-BUTOXYETHOXY)ETHOXY)-
009038953	R 17.0000/ 22.0000%	W	ALPHA-BUTOXY-OMEGA-HYDROXY ETHYLENE OXIDE-PROPYLENE OXIDE COPOLYMER
023783428	R 8.0000/ 13.0000%	W	2,5,8,11-Tetraoxatridecan-13-ol

THRESHOLD LIMIT VALUE: NONE ESTABLISHED BY ACGIH.

PERMISSIBLE EXPOSURE LIMIT: NONE ESTABLISHED BY OSHA.

SECTION 03: HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE - SKIN ACUTE: ABSORPTION: NO EVIDENCE OF HARMFUL EFFECTS FROM AVAILABLE INFORMATION. // CONTACT: NO EVIDENCE OF HARMFUL EFFECTS FROM AVAILABLE INFORMATION.

EFFECTS OF OVEREXPOSURE - EYE ACUTE: LIQUID MAY CAUSE DISCOMFORT IN THE EYE WITH SLIGHT EXCESS REDNESS AND POSSIBLY SWELLING OF THE CONJUNCTIVA.

EFFECTS OF OVEREXPOSURE - INHALATION ACUTE: SHORT-TERM HARMFUL HEALTH EFFECTS ARE NOT EXPECTED FROM VAPOR GENERATED AT AMBIENT TEMPERATURE.

EFFECTS OF OVEREXPOSURE - INGESTION ACUTE: SWALLOWING MODERATE QUANTITIES MAY RESULT IN MALAISE, APATHY, LOSS OF APPETITE, NAUSEA, VOMITING, AND ABDOMINAL DISCOMFORT. DIARRHEA MAY OCCUR.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: A KNOWLEDGE OF THE AVAILABLE TOXICOLOGY INFORMATION AND OF THE PHYSICAL AND CHEMICAL PROPERTIES OF THE MATERIAL SUGGESTS THAT OVEREXPOSURE IS UNLIKELY TO AGGRAVATE EXISTING MEDICAL CONDITIONS.

ADDITIONAL HEALTH HAZARD DATA: SKIN CONTACT MAY CAUSE SENSITIZATION AND AN ALLERGIC SKIN REACTION. OVEREXPOSURE TO VAPOR GENERATED AT HIGH TEMPERATURES MAY RESULT IN EYE AND RESPIRATORY TRACT IRRITATION, DIZZINESS, NAUSEA AND THE INHALATION OF HARMFUL AMOUNTS OF MATERIAL. CONTAINS ONE OR MORE AMINES WHICH MAY REACT WITH NITRITES TO FORM NITROSAMINES. SOME NITROSAMINES HAVE BEEN SHOWN TO BE CARCINOGENIC IN LABORATORY ANIMALS.

SECTION 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURES - SKIN: REMOVE CONTAMINATED CLOTHING. WASH SKIN WITH SOAP AND WATER. OBTAIN MEDICAL ATTENTION IF IRRITATION PERSISTS. WASH CLOTHING BEFORE REUSE.

EMERGENCY FIRST AID PROCEDURES - EYES: IMMEDIATELY FLUSH EYES WITH WATER AND CONTINUE WASHING FOR SEVERAL MINUTES. OBTAIN MEDICAL ATTENTION IF DISCOMFORT PERSISTS.

EMERGENCY FIRST AID PROCEDURES - INHALATION: REMOVE TO FRESH AIR.

EMERGENCY FIRST AID PROCEDURES - INGESTION: IF PATIENT IS FULLY CONSCIOUS, GIVE TWO GLASSES OF WATER. INDUCE VOMITING. OBTAIN MEDICAL ATTENTION.

NOTES TO PHYSICIAN: THERE IS NO SPECIFIC ANTIDOTE. TREATMENT OF OVEREXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION OF THE PATIENT.

SECTION 05: FIRE-FIGHTING MEASURES

FLAMMABLE LEL: ND 0.00

FLAMMABLE UEL: ND 0.00

EXTINGUISHING MEDIA: APPLY ALCOHOL-TYPE OR ALL-PURPOSE-TYPE FOAM BY MANUFACTURER'S RECOMMENDED TECHNIQUES FOR LARGE FIRES. USE CARBON DIOXIDE OR DRY CHEMICAL MEDIA FOR SMALL FIRES.

SPECIAL FIRE FIGHTING PROCEDURES: USE SELF-CONTAINED BREATHING

APPARATUS AND PROTECTIVE CLOTHING. DO NOT DIRECT A SOLID STREAM OF WATER OR FOAM INTO HOT, BURNING POOLS; THIS MAY CAUSE FROTHING AND INCREASE FIRE INTENSITY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: DURING A FIRE, OXIDES OF NITROGEN MAY BE PRODUCED.

FLASH POINT TEXT: 270 F (132.2 C) PENSKEY-MARTENS CLOSED CUP ASTM D 93
// 310 F (154.4 C) CLEVELAND OPEN CUP ASTM D 92

SECTION 06: ACCIDENTAL RELEASE MEASURES

SPILL OR LEAK PROCEDURES: COLLECT FOR DISPOSAL. WEAR SUITABLE PROTECTIVE EQUIPMENT.

SECTION 07: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: WARNING! CAUSES EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. KEEP CONTAINER CLOSED. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING. DO NOT ADD NITRITES OR OTHER NITROSATING AGENTS. A NITROSAMINE, WHICH MAY CAUSE CANCER, MAY BE FORMED. FOR INDUSTRY USE ONLY.

SECTION 7 - OTHER INFORMATION: OTHER PRECAUTIONS: PROCESS HAZARD: SUDDEN RELEASE OF HOT ORGANIC CHEMICAL VAPORS OR MISTS FROM PROCESS EQUIPMENT OPERATING AT ELEVATED TEMPERATURE AND PRESSURE, OR SUDDEN INGRESS OF AIR INTO VACUUM EQUIPMENT, MAY RESULT IN IGNITIONS WITHOUT THE PRESENCE OF OBVIOUS IGNITION SOURCES. PUBLISHED AUTOIGNITION OR IGNITION TEMPERATURE VALUES CANNOT BE TREATED AS SAFE OPERATING TEMPERATURES IN CHEMICAL PROCESSES WITHOUT ANALYSIS OF THE ACTUAL PROCESS CONDITIONS. ANY USE OF THIS PRODUCT IN ELEVATED-TEMPERATURE PROCESSES SHOULD BE THOROUGHLY EVALUATED TO ESTABLISH AND MAINTAIN SAFE OPERATING CONDITIONS. FURTHER INFORMATION IS AVAILABLE IN A TECHNICAL BULLETIN ENTITLED IGNITION HAZARDS OF ORGANIC CHEMICAL VAPORS.

SECTION 08: EXPOSURE CONTROLS - PROTECTION

EYE PROTECTION: SAFETY GLASSES OR MONOGOGGLES.

RESPIRATORY PROTECTION: NONE EXPECTED TO BE NEEDED.

VENTILATION: GENERAL (MECHANICAL) ROOM VENTILATION IS EXPECTED TO BE SATISFACTORY.

PERSONAL PROTECTIVE EQUIPMENT: EYE BATH, SAFETY SHOWER.

PROTECTIVE GLOVES (SPECIFY TYPE): PVC-COATED.

SECTION 09: PHYSICAL & CHEMICAL PROPERTIES

BOILING POINT TEMPS: = 254.70C/ 490.50F
BOILING POINT TEXT: AT 760 MMHG

POUR POINT TEMPS: < - 75.00F

SPECIFIC GRAVITY VALUES: = 1.0400
SPECIFIC GRAVITY TEXT: AT 20/20 C

VAPOR DENSITY VALUES: = 6.0000
VAPOR PRESSURE VALUES/UOM: < 0.0100MMHG
VAPOR PRESSURE TEXT: AT 00020 C

PERCENT VOLATILE BY WEIGHT VALUES: = 5.5300
PERCENT VOLATILE BY WEIGHT TEXT: (BY WEIGHT): APX. 5.53

EVAPORATION RATE VALUES: < 0.01
EVAPORATION RATE TEXT: (BUTYL ACETATE = 1)

SOLUBILITY IN WATER VALUES/UOM: = 100.0000
SOLUBILITY IN WATER TEXT: AT 00020 C

APPEARANCE: TRANSPARENT PALE YELLOW.

ODOR: PUNGENT.

MOLECULAR WEIGHT TEXT: NOT APPLICABLE.

PHYSICAL STATE: LIQ

SECTION 10: STABILITY & REACTIVITY

STABILITY INDICATOR: Y
STABILITY - CONDITIONS TO AVOID: WARNING: DO NOT MIX THIS PRODUCT WITH
NITRITES OR OTHER NITROSATING AGENTS BECAUSE A NITROSAMINE MAY BE
FORMED. NITROSAMINES MAY CAUSE CANCER.
STABILITY - TEXT: STABLE.

INCOMPATIBLE MATERIALS: AS WITH ALL ORGANIC MATERIALS CONTAINING CARBON
AND HYDROGEN, CONTACT WITH HIGHLY REACTIVE CHEMICAL OXIDANTS SHOULD BE
AVOIDED.

HAZARDOUS DECOMPOSITION PRODUCTS: HAZARDOUS COMBUSTION OR DECOMPOSITION
PRODUCTS: BURNING OR THERMAL DECOMPOSITION CAN PRODUCE THE FOLLOWING
COMBUSTION OR DECOMPOSITION PRODUCTS: OXIDES OF NITROGEN. CARBON
MONOXIDE AND/OR CARBON DIOXIDE. CARBON MONOXIDE IS HIGHLY TOXIC IF
INHALED; CARBON DIOXIDE IN SUFFICIENT CONCENTRATIONS CAN ACT AS AN
ASPHYXIANT. ACUTE OVEREXPOSURE TO THE PRODUCTS OF COMBUSTION MAY RESULT
IN IRRITATION OF THE RESPIRATORY TRACT.

HAZARDOUS POLYMERIZATION INDICATOR: N

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID: NONE KNOWN.
HAZARDOUS POLYMERIZATION TEXT: WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

CHRONIC EFFECTS: NO INFORMATION AVAILABLE.

SECTION 11 - OTHER INFORMATION: ADDITIONAL TOXICITY INFORMATION: IN STUDIES IN RATS, METHOXYTRIGLYCOL PRODUCED TESTICULAR ATROPHY WHEN ADMINISTERED IN DRINKING WATER OVER A 90-DAY PERIOD AT A DOSAGE LEVEL OF 4 G/KG/DAY. THIS EFFECT WAS NOT SEEN AT ORAL DOSAGE LEVELS OF 1.2 G/KG/DAY OR WHEN APPLIED TO THE SKIN FOR 90 DAYS AT THE HIGHEST DOSAGE LEVEL ATTAINABLE, 4 G/KG/DAY. EVIDENCE OF DEVELOPMENTAL TOXICITY IN THE PRESENCE OF MATERNAL TOXICITY WAS NOTED IN OFFSPRING OF PREGNANT RATS RECEIVING LARGE ORAL DOSES OF METHOXYTRIGLYCOL. DOSES OF 1250 MG/KG/DAY AND HIGHER, ADMINISTERED DURING THE PERIOD OF ORGANOGENESIS, WERE ASSOCIATED WITH EFFECTS TYPICALLY ATTRIBUTED TO DELAYED DEVELOPMENT. A DOSE OF 1000 MG/KG WAS A CLEAR NO OBSERVED EFFECTS LEVEL (NOEL) FOR DEVELOPMENTAL TOXICITY IN THIS SPECIES. NO EVIDENCE OF DEVELOPMENTAL TOXICITY WAS NOTED IN RABBITS EVEN AT DOSES AS HIGH AS 1500 MG/KG, A DOSE WHICH WAS SEVERELY TOXIC TO THE MOTHERS.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: INCINERATE IN A FURNACE WHERE PERMITTED UNDER FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 15: REGULATORY INFORMATION

SARA 311/312 HAZARD INDICATORS:

IMMEDIATE HEALTH INDICATOR = Y
DELAYED HEALTH INDICATOR = Y

SECTION 15 - OTHER INFORMATION: FEDERAL EPA: COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA) REQUIRES NOTIFICATION OF THE NATIONAL RESPONSE CENTER OF RELEASE OF QUANTITIES OF HAZARDOUS SUBSTANCES EQUAL TO OR GREATER THAN THE REPORTABLE QUANTITIES (RQS) IN 40 CFR 302.4. COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE: GLYCOL ETHERS (CAS# NONE), 75% UPPER BOUND CONCENTRATION. // SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES (TPQS) AND RELEASE REPORTING BASED ON REPORTABLE QUANTITIES (RQS) IN 40 CFR 355 USED FOR SARA 302, 304, 311 AND 312). COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE: NONE. // SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III REQUIRES SUBMISSION OF ANNUAL REPORTS OF RELEASE OF TOXIC CHEMICALS THAT APPEAR IN 40 CFR 372 (FOR SARA 313). THIS INFORMATION MUST BE INCLUDED IN ALL MSDSS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL. COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE REPORTING UNDER THE STATUTE ARE: GLYCOL ETHERS (CAS# NONE), 75%

UPPER BOUND CONCENTRATION. // TOXIC SUBSTANCES CONTROL ACT (TSCA)
STATUS: THE INGREDIENTS OF THIS PRODUCT ARE ON THE TSCA INVENTORY. //
CALIFORNIA PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN MATERIALS
WHICH THE STATE OF CALIFORNIA HAS FOUND TO CAUSE CANCER, BIRTH DEFECTS,
OR OTHER REPRODUCTIVE HARM. // MASSACHUSETTS RIGHT-TO-KNOW, SUBSTANCE
LIST (MSL) HAZARDOUS SUBSTANCES AND EXTRAORDINARILY HAZARDOUS
SUBSTANCES ON THE MSL MUST BE IDENTIFIED WHEN PRESENT IN PRODUCTS.
COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE
REPORTING UNDER THE STATUTE ARE: NONE. // PENNSYLVANIA RIGHT-TO-KNOW,
HAZARDOUS SUBSTANCE LIST: HAZARDOUS SUBSTANCES AND SPECIAL HAZARDOUS
SUBSTANCES ON THE LIST MUST BE IDENTIFIED WHEN PRESENT IN PRODUCTS.
COMPONENTS PRESENT IN THIS PRODUCT AT A LEVEL WHICH COULD REQUIRE
REPORTING UNDER THE STATUTE ARE: GLYCOL ETHERS (CAS# NONE), 75% UPPER
BOUND CONCENTRATION. // CALIFORNIA SCAQMD RULE 443.1 VOC'S: VOC: 726
G/L; VOC 726 G/L LESS WATER AND LESS EXEMPTED SOLVENTS.

*** END OF DATA SHEET ***