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**Mobil***Superseded 4/7/90*

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**MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN**

REVISED:03/23/92

\*\*\*\*\* I. PRODUCT IDENTIFICATION \*\*\*\*\*

**MOBILGREASE 28**

**SUPPLIER:** MOBIL OIL CORP. **24-HOUR EMERGENCY (CALL COLLECT):**  
(609) 737-4411

**CHEMICAL NAMES AND SYNONYMS:** **CHEMTREC:**  
SYN. HYDROCARBONS AND ADDITIVES (800) 424-9300

**USE OR DESCRIPTION:** **PRODUCT AND MSDS INFORMATION:**  
AVIATION GREASE (800) 662-4525

\*\*\*\*\* II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES \*\*\*\*\*

**APPEARANCE:** Red Grease **ODOR:** Mild **PH:** NA

**VISCOSITY AT 100 F, SUS:** 144.0 **AT 40 C, CS:** 28.0

**VISCOSITY AT 210 F, SUS:** 44.0 **AT 100 C, CS:** 5.2

**FLASH POINT F(C):** 450(232) (ESTIMATED (OIL COC))

**MELTING POINT F(C):** NA **POUR POINT F(C):** NA

**BOILING POINT F(C):** > 600(316)

**RELATIVE DENSITY, 15/4 C:** 0.949 **SOLUBILITY IN WATER:** Negligible

**VAPOR PRESSURE-mm Hg 20C:** < .1

Note: Most physical properties for oil component.

NA-Not Applicable NE-Not Established D-Decomposes

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

\*\*\*\*\* III. POTENTIALLY HAZARDOUS INGREDIENTS \*\*\*\*\*

|                            | WT PCT<br>(APPROX) | EXPOSURE LIMITS<br>MG/M3 | SOURCES<br>(AND NOTES) |
|----------------------------|--------------------|--------------------------|------------------------|
| PENTAERYTHRITOL (115-77-5) | 1                  | 10                       | M-(TOTAL DUST)         |
|                            |                    | 10                       | A                      |
|                            |                    | 10                       | O-(TOTAL DUST)         |
|                            |                    | 5                        | O-RESP. DUST           |
| SODIUM NITRITE (7632-00-0) | 1                  | NE                       | NE                     |

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A\*-Suggested-TLV, M=Mobil, O=OSHA, S=Supplier

NOTE: Limits shown for guidance only. Follow applicable regulations.

\*\*\*\*\* IV. HEALTH HAZARD DATA \*\*\*\*\*

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

EFFECTS OF OVEREXPOSURE: Not expected to be a problem.

\*\*\*\*\* V. EMERGENCY AND FIRST AID PROCEDURES \*\*\*\*\*

--- FOR PRIMARY ROUTES OF ENTRY ---

**EYE CONTACT:** Flush thoroughly with water. If irritation persists, call a physician.

**SKIN CONTACT:** Wash contact areas with soap and water. High pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement.

**INHALATION:** Not expected to be a problem.

**INGESTION:** Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

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## \*\*\*\*\* VI. FIRE AND EXPLOSION HAZARD DATA \*\*\*\*\*

FLASH POINT F(C): 450(232) (ESTIMATED (OIL COC))

FLAMMABLE LIMITS. LEL: NE UEL: NE

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing.

Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

## \*\*\*\*\* VII. REACTIVITY DATA \*\*\*\*\*

STABILITY (Thermal, Light, etc.): Stable

CONDITIONS TO AVOID: Extreme heat.

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

## \*\*\*\*\* VIII. SPILL OR LEAK PROCEDURE \*\*\*\*\*

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Shovel up and dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.

WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

## \*\*\*\*\* IX. SPECIAL PROTECTION INFORMATION \*\*\*\*\*

EYE PROTECTION: Generally eye contact is unlikely with this type material. If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.

SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.

RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.

VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

## \*\*\*\*\* X. SPECIAL PRECAUTIONS \*\*\*\*\*

STORAGE: This product has a limited shelf life.

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## \*\*\*\*\* XI. TOXICOLOGICAL DATA \*\*\*\*\*

## ---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Slightly toxic ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Slightly toxic ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Expected to be non-irritating. ---Based on testing of similar products and/or the components.

## ---CHRONIC TOXICOLOGY (SUMMARY)---

Skin sensitization: Negative in humans.

## \*\*\*\*\* XII. REGULATORY INFORMATION \*\*\*\*\*

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA and EINECS.

## DOT:

Shipping Name: Not applicable

Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING CATEGORY: H2 - Lubricants With No Food Contact

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312 - FORMERLY 302) REPORTABLE HAZARD CATEGORIES: None

This product contains no chemicals reportable under SARA (313) toxic release program.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

| CHEMICAL NAME                            | CAS NUMBER | LIST CITATIONS       |
|------------------------------------------|------------|----------------------|
| 1,3-PROPANEDIOL, 2,2-BIS(HYDROXYMETHYL)- | 115-77-5   | 1, 2, 11, 12, 13, 17 |

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## --- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,  
 6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,  
 11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,  
 16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

## \*\*\*\*\* XIII. INGREDIENTS \*\*\*\*\*

| INGREDIENT DESCRIPTION                                                                                                                                                                       | PERCENT | CAS NUMBER |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------|
| CONTAINS THE FOLLOWING BASE OILS:                                                                                                                                                            | > 80.00 |            |
| 1-DECENE, HOMOPOLYMER, HYDROGENATED                                                                                                                                                          |         | 68037-01-4 |
| QUATERNARY AMMONIUM COMPOUNDS,<br>BENZYL (HYDROGENATED TALLOWALKYL)<br>DIMETHYL, CHLORIDES, COMPOUNDS<br>WITH BENTONITE AND BIS<br>(HYDROGENATED TALLOW ALKYL)<br>DIMETHYLAMMONIUM CHLORIDES | < 9.00  | 71011-25-1 |
| ACETIC ACID, CALCIUM SALT                                                                                                                                                                    | < 3.00  | 62-54-4    |
| BENZENEPROPANOIC ACID, 3,5-BIS<br>(1,1-DIMETHYLETHYL)-4-HYDROXY-,<br>OCTADECYL ESTER                                                                                                         | < 2.00  | 2082-79-3  |
| BENZENAMINE, N-PHENYL-, REACTION<br>PRODUCTS WITH 2,4,4-TRIMETHYLPENTENE                                                                                                                     | < 2.00  | 68411-46-1 |
| 1-NAPHTHALENAMINE, N-PHENYL                                                                                                                                                                  | < 2.00  | 90-30-2    |
| 1,3-PROPANEDIOL,<br>2,2-BIS (HYDROXYMETHYL)-                                                                                                                                                 | 1.44    | 115-77-5   |
| NITROUS ACID, SODIUM SALT                                                                                                                                                                    | 1.02    | 7632-00-0  |
| DISTILLATES (PETROLEUM), HYDROTREATED<br>LIGHT NAPHTHENIC                                                                                                                                    | 0.09    | 64742-53-6 |
| 2-NAPHTHALENAMINE                                                                                                                                                                            | 0.001   | 91-59-8    |
| 1-NAPHTHALENAMINE                                                                                                                                                                            | 0.001   | 134-32-7   |

## \*\*\*\*\* APPENDIX \*\*\*\*\*

FOR MOBIL USE ONLY: MCN: , MHC: 1\* 1\* NA 0\* 0\*, MPPEC: A, PPEC: A,  
 US91-502 APPROVE 08/08/91 REQ: US - MARKETING

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 INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT  
 WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR  
 PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT  
 ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL  
WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF  
MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE  
USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A  
 RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING  
 LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING  
 PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.  
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PREPARED BY: MOBIL OIL CORPORATION

ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ

FOR FURTHER INFORMATION, CONTACT:

MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL  
 3225 GALLOWES ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265