

Prod.Name: AEROSHELL GREASE 5
Manufacturer: EQUILON ENTERPRISES LLC
HMCS ID: 52976
SUC: 04 - Metal Working Fluids and Lubricants

MATERIAL SAFETY DATA SHEET

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1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT INFORMATION

Product Name: AEROSHELL GREASE 5

External Keys:

9985921 Productive Materials
12377969 Distributable Material (Part #)
ACDELCO Primary Tradename - Distributable Material
BRAKE
CALIPER
LUBRICANT
10-4077 Distributable Material (Part #)

MANUFACTURER INFORMATION

Manufacturer: EQUILON ENTERPRISES LLC

Address:

(SHELL AND TEXACO USA TEXAS HOUSTON P.O. Box 77210-4453 MAILING
MERGER) 4453

Communication Lines:

Phone 877-276-7283 Chemtel
Phone 800-424-9300 Chemtrec
Phone 877-276-7285 General assistance

Comment:

AS OF 12/22/03, THE MSDS DATED 1/4/99 IS THE MOST RECENT PER THE MANUFACTURER.ACCESS TO FULL CHEMICAL AND EXACT PERCENTAGE COMPOSITION IS LIMITED TO EMPLOYEES OR CONTRACTORS WITH APPROPRIATE PROFESSIONAL TRAINING (E.G., TOXICOLOGISTS, MEDICAL STAFF, ENVIRONMENTAL ENGINEERS AND HYGIENISTS), ON A NEED-TO-KNOW BASIS, WHO ARE BOUND BY INDIVIDUAL CONFIDENTIALITY AGREEMENTS. ABSENT SPECIAL EXEMPTIONS, SUCH INFORMATION, INCLUDING CAS NUMBERS, MAY ALSO BE DISCLOSED TO REGULATORY AUTHORITIES, AS PART OF A SHELL MSDS OR PRODUCT LABEL, AS REQUIRED BY LAW, AND TO THIRD PARTIES SUCH AS TREATING PHYSICIANS IN CASES OF EMERGENCY.

2 INGREDIENT INFORMATION

Chemical Family: LUBRICATING GREASE

Synonyms:

MIXTURE

FORMULATION

Ingredients:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Prefix</u>	<u>Value</u>	<u>Unit</u>	<u>Exposure Limits</u>
BENTONITE	1302-78-9	Range	3 - 9	% Wt	No
PHOSPHORIC ACID	7664-38-2	Range	0.1 - 0.9	% Wt	Yes
SEBACIC ACID, DISODIUM SALT	17265-14-4	Range	1 - 3	% Wt	No
Residual oils, petroleum, hydrotreated	64742-57-0	Range	80 - 90	% Wt	No
Benzenamine, 2-ethyl-N-(2-ethylphenyl)-, (tripropenyl) derivs.	68608-77-5	Range	1 - 3	% Wt	No
Fatty acids, tall-oil, reaction products with polyethylenepolyamines	68910-93-0	Range	1 - 5	% Wt	No

3 HAZARDS IDENTIFICATION

Hazards Overview:

Skin Primary Entry: Yes. Eye Primary Entry: Yes. Inhalation Primary Entry: Yes. Ingestion Primary Entry: Yes.

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3 HAZARDS IDENTIFICATION

Specific Hazards (Routes Of Exposure):

<u>Exposure Routes</u>	<u>Exposure Duration</u>	<u>Observation</u>
Skin Contact	General	CONTACT: PROLONGED OR REPEATED CONTACT MAY CAUSE VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, FOLLICULITIS OR OIL ACNE. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF GREASE INTO THE SKIN CAUSING LOCAL NECROSIS. MAY BE MILDLY IRRITATING TO THE EYES. NOT EXPECTED TO BE A RELEVANT ROUTE OF EXPOSURE, HOWEVER, UNDER HIGH TEMPERATURE CONDITIONS, VAPORS IRRITATING TO THE NOSE, THROAT AND UPPER RESPIRATORY TRACT MAY BE PRODUCED. GREASES ARE GENERALLY CONSIDERED TO HAVE A LOW ORDER OF ACUTE ORAL TOXICITY.
Eye Contact	General	
Inhalation	General	
Ingestion	General	

Medical Conditions Aggravated By Exposure:

PRE-EXISTING SKIN DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

Comment:

Additional Health Hazard Data: THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).SIGNS AND SYMPTOMS: IRRITATION AS NOTED. LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION.OTHER HEALTH EFFECTS:THIS SPECIFIC PRODUCT HAS NOT BEEN TESTED IN LONG-TERM, CHRONIC EXPOSURE TESTS. LUBRICATING GREASES ARE GENERALLY CONSIDERED TO BE OF A LOW ORDER OF ACUTE TOXICITY TO HUMANS. HOWEVER, THE HANDLING PROCEDURES AND SAFETY PRECAUTIONS IN THIS MSDS SHOULD BE FOLLOWED TO MINIMIZE EMPLOYEE'S EXPOSURE.SUPPLEMENTAL HEALTH INFORMATION:NONE IDENTIFIED.

4 FIRST AID MEASURES

First Aid By::

Inhalation	REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.
Skin Contact	CONTACT: REMOVE CONTAMINATED CLOTHING AND WIPE EXCESS OFF. WASH WITH SOAP AND WATER OR A WATERLESS HAND CLEANER FOLLOWED BY SOAP AND WATER. DO NOT REUSE CLOTHING UNTIL THOROUGHLY CLEANED. IF IRRITATION PERSISTS, GET MEDICAL ATTENTION. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS DAMAGE; DO NOT WAIT FOR SYMPTOMS TO DEVELOP.
Eye Contact	CONTACT: FLUSH WITH WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.
Ingestion	DO NOT INDUCE VOMITING. IN GENERAL, NO TREATMENT IS NECESSARY UNLESS LARGE QUANTITIES OF PRODUCT ARE INGESTED. HOWEVER, GET MEDICAL ADVICE.

Notes To Physician:

IN GENERAL, EMESIS INDUCTION IS UNNECESSARY IN HIGH VISCOSITY, LOW VOLATILITY PRODUCTS, I.E., MOST OILS AND GREASES.

5 FIRE FIGHTING MEASURES

Flash Point:

= 550 F PMCC. Flash Point Text:(BASE OIL).

Extinguishing Media:

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5 FIRE FIGHTING MEASURES

Extinguishing Media:

USE WATER FOG, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE RE-IGNITED ON SURFACE OF WATER.

Fire and Explosion Hazards:

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE IDENTIFIED.

Special Fire Fighting Procedures:

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS: DO NOT ENTER CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT INCLUDING A NIOSH APPROVED SELF CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS SURROUNDING EQUIPMENT AND STRUCTURES WITH WATER.

Comment:

FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER/UPPER: N/AV.THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

6 ACCIDENTAL RELEASE MEASURES

Comment:

Spill or Leak Procedures: SCOOP UP EXCESS GREASE. CLEAN AREA WITH APPROPRIATE CLEANER.

7 HANDLING AND STORAGE

STORAGE

Additional Information on Storage Conditions:

Precautions to be Taken in Handling and Storage: SPECIAL PRECAUTIONS: STORE IN A COOL, DRY PLACE WITH ADEQUATE VENTILATION. KEEP AWAY FROM OPEN FLAMES AND HIGH TEMPERATURES.MINIMIZE SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE. PROPERLY DISPOSE OF CONTAMINATED LEATHER ARTICLES, INCLUDING SHOES, THAT CANNOT BE DECONTAMINATED.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Limit Values:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Type</u>	<u>Value</u>	<u>Specification</u>	<u>Source</u>
PHOSPHORIC ACID	7664-38-2	PEL-TWA	1mg/m3	-	OSHA - Permissible Exposure Limits (PELs)
PHOSPHORIC ACID	7664-38-2	GM OEG -TWA	1mg/m3	-	Threshold Limit Values (TLVs) - ACGIH
PHOSPHORIC ACID	7664-38-2	GM OEG -STEL	3mg/m3	-	Threshold Limit Values (TLVs) - ACGIH
PHOSPHORIC ACID	7664-38-2	TLV-TWA	1mg/m3	-	GM Occupational Exposure Guidelines (OEG)
PHOSPHORIC ACID	7664-38-2	TLV-STEL	3mg/m3	-	GM Occupational Exposure Guidelines (OEG)
PHOSPHORIC ACID	7664-38-2	State-TWA	1mg/m3	-	MICHIGAN

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8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS

Limit Values:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Type</u>	<u>Value</u>	<u>Specification</u>	<u>Source</u>
PHOSPHORIC ACID	7664-38-2	State- STEL	3mg/m3	-	MICHIGAN
PHOSPHORIC ACID	7664-38-2	State- TWA	1mg/m3	-	NEW YORK
PHOSPHORIC ACID	7664-38-2	State- STEL	3mg/m3	-	NEW YORK
PHOSPHORIC ACID	7664-38-2	State- TWA	1mg/m3	-	TENNESSEE
PHOSPHORIC ACID	7664-38-2	State- STEL	3mg/m3	-	TENNESSEE

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE):

Skin Protection	USE OIL RESISTANT CLOTHING AS NEEDED TO MINIMIZE SKIN CONTACT.
Respiratory Protection	NOT ORDINARILY REQUIRED.
General Protection	ADDITIONAL PROTECTIVE MEASURES: NONE IDENTIFIED.
Hand Protection	USE OIL RESISTANT GLOVES AS NEEDED TO MINIMIZE SKIN CONTACT.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Physical State: Solid
Color: DARK AMBER, SMOOTH
Odor: SLIGHT ODOR.

PHYSICAL PROPERTIES

Changes of State:

Boiling Point NOT AVAILABLE
Melting/Freezing Point MELTING POINT (DEG F): 500 (DROP POINT).

Vapor Pressure:

(MM HG): NOT AVAILABLE

Vapor Density:

(AIR=1): NOT AVAILABLE

Evaporation Rate:

(NORMAL BUTYL ACETATE=1): NOT AVAILABLE

Specific Gravity:

(H2O=1): NOT AVAILABLE

Solubility:

Water Solubility in Water Text:INSOLUBLE.

Viscosity:

Viscosity 30-34 (CS AT 100 DEG C).

Comment:

MELTING POINT (DEG F): 500 (DROP POINT).

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10 STABILITY AND REACTIVITY

STABILITY INFORMATION

Stability Under Normal Conditions: Stable

Conditions to Avoid:

CONDITIONS AND MATERIALS TO AVOID: AVOID HEAT, OPEN FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

Hazardous Polymerization:

Hazardous Polymerization: None. Hazardous Polymerization Text: WILL NOT OCCUR.

HAZARDOUS DECOMPOSITION

Reactions:

<u>Type of Reaction</u>	<u>Reaction Products</u>
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Decomposition	THERMAL DECOMPOSITION PRODUCTS ARE HIGHLY DEPENDENT ON THE COMBUSTION CONDITIONS. A COMPLEX MIXTURE OF AIRBORNE SOLID, LIQUID PARTICULATES AND GASES WILL EVOLVE WHEN THIS MATERIAL UNDERGOES PYROLYSIS OR COMBUSTION. CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.
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Comment:

Stability Text: STABLE.

11 TOXICOLOGICAL INFORMATION

CLASSIFICATION OF INGREDIENTS

Carcinogenicity:

OTHER HEALTH EFFECTS:THIS PRODUCT AND ITS COMPONENTS ARE NOT CLASSIFIED AS CARCINOGENS BY INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC), NATIONAL TOXICOLOGY PROGRAM (NTP) OR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

Comment:

Toxicological Data Unlimited Text: OTHER HEALTH EFFECTS:THIS SPECIFIC PRODUCT HAS NOT BEEN TESTED IN LONG-TERM, CHRONIC EXPOSURE TESTS. LUBRICATING GREASES ARE GENERALLY CONSIDERED TO BE OF A LOW ORDER OF ACUTE TOXICITY TO EXPERIMENTAL ANIMALS. HOWEVER, THE HANDLING PROCEDURES AND SAFETY PRECAUTIONS IN THIS MSDS SHOULD BE FOLLOWED TO MINIMIZE EMPLOYEE'S EXPOSURE.

12 ECOLOGICAL INFORMATION

13 DISPOSAL CONSIDERATIONS

Waste Disposal Information:

RCRA INFORMATION: IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

14 TRANSPORT INFORMATION

DOT Information:

DEPARTMENT OF TRANSPORTATION CLASSIFICATION:NOT HAZARDOUS BY D.O.T. REGULATIONS.DOT PROPER SHIPPING NAME: NOT APPLICABLE.OTHER REQUIREMENTS: NOT APPLICABLE.

15 REGULATORY INFORMATION

LABELLING

Hazard Codes:

HMIS Reactivity	0
HMIS Health	1
HMIS Flammability	1
NFPA Flammability	1
NFPA Health	0
NFPA Reactivity	0

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15 REGULATORY INFORMATION

NATIONAL REGULATIONS

Immediate Health: Yes

Delayed Health: No

Fire: No

Sudden Pressure Release: No

Reactive: No

Comment:

RCRA Hazardous Waste Number Text: RCRA INFORMATION: IF THIS PRODUCT BECOMES A WASTE, IT WOULD NOT BE A HAZARDOUS WASTE BY RCRA CRITERIA (40 CFR 261). PLACE IN AN APPROPRIATE DISPOSAL FACILITY IN COMPLIANCE WITH LOCAL REGULATIONS.

Comment:

SARA 311/312 ASSIGNED BY GENERAL MOTORS TECHNICAL REVIEW.BASED UPON DATA AVAILABLE, THIS PRODUCT IS NOT HAZARDOUS UNDER OSHA HAZARD COMMUNICATION (29 CFR 1910.1200).THE HEALTH EFFECTS NOTED IN SECTION 3 ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).REGULATORY CONTROLS:THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY OF CHEMICAL SUBSTANCES.PROTECTION OF STRATOSPHERIC OZONE (PURSUANT TO SECTION 611 OF THE CLEAN AIR ACT AMENDMENTS OF 1990): PER 40 CFR PART 82, THIS PRODUCT DOES NOT CONTAIN NOR WAS IT DIRECTLY MANUFACTURED WITH ANY CLASS I OR CLASS II OZONE DEPLETING SUBSTANCES.IN ACCORDANCE WITH SARA TITLE III SECTION 313, THE ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.STATE REGULATORY INFORMATION:BASED ON INFORMATION AVAILABLE, THIS PRODUCT DOES NOT CONTAIN ANY CHEMICAL SUBSTANCE LISTED ON A CHEMICAL SPECIFIC STATE LIST. SARA TITLE III INFORMATION:REPORTABLE QUANTITY OF EXTREMELY HAZARDOUS SUBSTANCE, SEC 302, THRESHOLD PLANNING QUANTITY, EXTREMELY HAZARDOUS SUBSTANCE, SEC 302,TOXIC CHEMICAL, SEC 313. CATEGORY AS REQUIRED BY SEC 313 (40 CFR 372.65 C), MUST BE USED ON TOXIC RELEASE INVENTORY FORM: NO INFORMATION PROVIDED.ENVIRONMENTAL RELEASE INFORMATION:THIS PRODUCT IS COVERED BY EPA'S COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT (CERCLA) PETROLEUM EXCLUSION. THEREFORE RELEASES TO AIR, LAND, OR WATER ARE NOT REPORTABLE UNDER CERCLA (SUPERFUND). HOWEVER UNDER SECTION 311 OF EPA'S CLEAN WATER ACT (CWA), THIS PRODUCT IS CONSIDERED AN OIL. AS SUCH, SPILLS INTO OR LEADING TO SURFACE WATERS THAT CAUSE A SHEEN MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER, 800-424-8802.THIS PRODUCT IS AN OIL UNDER 49 CFR (DOT) PART 130. IF SHIPPED BY RAIL OR HIGHWAY IN A TANK WITH A CAPACITY OF 3,500 GALLONS OR MORE, IT IS SUBJECT TO THE REQUIREMENTS OF PART 130. MIXTURE SOLUTIONS IN WHICH THIS PRODUCT IS PRESENT AT 10% OR MORE MAY ALSO BE SUBJECT TO THIS RULE.

16 OTHER INFORMATION