MATERIAL SAFETY DATA SHEET

PART NUMBER: 905-752003
IDENTITY: DIALA(R) OIL AX
MANUFACTURER: ROSEMOUNT ANALYTICAL INC.
ADDRESS: 2400 BARRANCA PARKWAY
IRVINE, CA 92606
TELEPHONE: 949/757-8500
(1-800-424-9300 24 Hr. CHEMTREC/ CODE: RANA)

DATE REVISED: 01/26/11
PREPARED BY: T. PHILLIPS

SECTION 1--MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS	CAS#	%	OSHA PEL	ACGIH TLV	OTHER LIMIT RECOMMENDED
Highly Refined Petroleum Oils (mixture)	64742-46-7 64742-53-6	98.8			
Butylated Hydroxy Toluene	128-37-0	<0.2			
NON-HAZARDOUS INGREDIENTS					
TOTAL		100			

No health hazard or other information is available for the solution of the mixture. The following sections are based on information obtained from Shell Oil http://www.equivashellmsds.com and our best scientific understanding of the solution.

SECTION 2--PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT	>300
SPECIFIC GRAVITY (H_2O = 1)	0.8833
VAPOR PRESSURE (mm Hg/TEMPERATURE)	<0.1
MELTING POINT	-40 (pour point)
VAPOR DENSITY (AIR = 1)	NOT AVAILABLE
EVAPORATION RATE (= 1)	NOT AVAILABLE
SOLUBILITY IN WATER	NEGLIGABLE
WATER REACTIVE	NOT AVAILABLE
APPEARANCE AND ODOR	White liquid. Slight hydrocarbon odor.

SECTION 3--FIRE AND EXPLOSION HAZARD DATA

FLASH POINT AND METHOD USE	295 F
AUTO IGNITION TEMPERATURE	NOT AVAILABLE
FLAMMABILITY LIMITS IN AIR BY VOLUME	NOT AVAILABLE
LEL	
UEL	
EXTINGUISHER MEDIA	Use water fog, foam, dry chemical or CO2. Do not use a direct stream of water. Product will float and can be reignited on surface of water.
SPECIAL FIRE FIGHTING PROCEDURE	Material will not burn unless preheated. Do not enter confined fire-space without full bunker gear, including a positive pressure Niosh-approved S.C.B.A.
UNUSUAL FIRE AND EXPLOSION HAZARD:	None

SECTION 4--REACTIVITY HAZARD DATA

STABILITY STABLE_ UNSTABLE_

CONDITIONS TO AVOID: Avoid heat, open flames, and oxidizing materials.

INCOMPATIBILITY MATERIALS TO AVOID: NOT AVAILABLE

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition products are highly dependent on thecombustion conditions. A complex mixture of airborne solid, liquid, particulates and gases will evolve when this material undergoes pyrolisis or combustion. CO may be formd.

HAZARDOUS POLYMERIZATION: MAY OCCUR_ WILL NOT OCCUR x_

SECTION 5--HEALTH HAZARD DATA 905-752003 (SEE 19825F ATTACHED.)

PRIMARY ROUTES OF ENTRY: INHALATION x SKIN ABSORPTION x
INGESTION x NOT HAZARDOUS_

CARCINOGEN LISTED: NTP__ IRAC__ OSHA__ NOT LISTED_x
HEALTH HAZARDS
ACUTE: IRRITANT
CHRONIC: NOT AVAILABLE

SIGNS AND SYMPTOMS OF EXPOSURE: Irritation. Aspiration Pneumonitits. Bluish skin, coughing, necrosis, and death (severe case)

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin and respiratory disorders.

EMERGENCY FIRST AID PROCEDURES:

EYE CONTACT: Flush with water. If irritation occurs, get medical attention.

SKIN CONTACT: Remove contaminated clothing and wipe excess from skin. Wash with soap and water. If injected under the skin necrosis can occur. Go and see a doctor immediately.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

INGESTION: Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquied into the lungs.

SECTION 6--CONTROL AND PROTECTIVE MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): NIOSHA/MSHA APPROVED RESPIRATOR
PROTECTIVE GLOVES: YES
EYE PROTECTION: YES

VENTILATION TO BE USED
LOCAL EXHAUST: YES
MECHANICAL (GENERAL):
SPECIAL OTHER (SPECIFY): SEE SHELL MSDS ACCOMPANYING THIS MSDS
PROTECTIVE CLOTHING AND EQUIPMENT:
HYGIENIC WORK PRACTICES:

SECTION 7--PRECAUTIONS FOR SAFE HANDLING AND USE/LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS SPILLED OR RELEASED: Shut off source of leak, dike and contain. Wear protective clothing. Vacuum, and absorb liquid. Small leaks, just absorb liquid.
WASTE DISPOSAL METHODS: Dispose of in fire retardant container
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Do not store in elevated temperatures, near a flame or possible flame source, store in an approved fire proof cabinet

OTHER PRECAUTIONS AND/OR SPECIAL HAZARDS:

RATING:

HEALTH 1 FLAMMABILITY 1 REACTIVITY 0 SPECIFIC NONE

MATERIAL SAFETY DATA SHEET

EQUILON MSDS: 60030E-11 01/04/99

DIALA(R) OIL AX

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE
EQUIVA SERVICES: 877-276-7283
CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE
877-276-7285

NAME AND ADDRESS

EQUILON ENTERPRISES LLC
PRODUCT STEWARDSHIP
P.O. BOX 674414
HOUSTON, TX 77267-4414

SECTION I NAME

PRODUCT: DIALA(R) OIL AX
CHEM NAME: MIXTURE (SEE SECTION II-A)
CHEM FAMILY: PETROLEUM HYDROCARBON; INDUSTRIAL DIELECTRIC OIL
SHELL CODE: 68702 68745 69702 69704

HEALTH HAZARD: 1 **FIRE HAZARD:** 1 **REACTIVITY:** 0

SECTION II-A INGREDIENTS

NO.	COMPOSITION	CAS NO.	PERCENT
P	DIALA OIL AX		
1	HIGHLY REFINED PETEROLEUM OILS	MIXTURE*	100
2	BUTYLATED HYDROXY TOLUENE	128-37-0	<0.2

NOTE: DIALA OIL CONTAINS NO DETECTABLE LEVELS (<1 PPM) OF PCB AS MEASURED BY ASTM D4059.

*MAY CONTAIN: 64742-46-7, 64742-53-6

NFPA HAZARD RATING: HEALTH 0 FIRE 1 REACTIVITY 0

SECTION II-B ACUTE TOXICITY DATA

NO.	ACUTE ORAL LD50	ACUTE DERMAL LD50	ACUTE INHALATION LC50
2	>5 G/KG, RAT	>2 G/KG, RABBIT	NOT AVAILABLE

SECTION III HEALTH INFORMATION

THE HEALTH EFFECTS NOTED BELOW ARE CONSISTENT WITH REQUIREMENTS UNDER THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200).

EYE CONTACT: BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING PRODUCT IS PRESUMED TO BE NONIRRITATING TO THE EYES.

SKIN CONTACT: BASED ON ESSENTIALLY SIMILAR PRODUCT TESTING PRODUCT IS PRESUMED TO BE SLIGHTLY IRRITATING TO THE SKIN. PROLONGED AND REPEATED CONTACT MAY RESULT IN VARIOUS SKIN DISORDERS SUCH AS DERMATITIS, FOLLICULITIS OR OIL ACNE. RELEASE DURING HIGH PRESSURE USAGE MAY RESULT IN INJECTION OF OIL INTO THE SKIN CAUSING LOCAL NECROSIS.

INHALATION: INHALATION OF VAPORS (GENERATED AT HIGH TEMPERATURES ONLY) OR OIL MIST MAY CAUSE A MILD IRRITATION OF THE MUCOUS MEMBRANES OF THE UPPER RESPIRATORY TRACT.

INGESTION: INGESTION OF PRODUCT MAY RESULT IN VOMITING; ASPIRATION (BREATHING OF VOMITUS INTO THE LUNGS) MUST BE AVOIDED AS EVEN SMALL QUANTITIES MAY RESULT IN ASPIRATION PNEUMONITIS.

SIGNS AND SYMPTOMS: IRRITATION AS NOTED ABOVE. ASPIRATION PNEUMONITIS MAY BE EVIDENCED BY COUGHING, LABORED BREATHING AND CYANOSIS (BLUISH SKIN); IN SEVERE CASES DEATH MAY OCCUR. LOCAL NECROSIS IS EVIDENCED BY DELAYED ONSET OF PAIN AND TISSUE DAMAGE A FEW HOURS FOLLOWING INJECTION.

AGGRAVATED MEDICAL CONDITIONS:
PREEXISTING SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

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).

FOR A SPANISH TRANSLATION OF THIS MSDS, CALL 1-800-240-MSDS.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

COMP NO.	OSHA PEL/TWA	PEL/CEILING	ACGIH TLV/TWA	TLV/STEL	OTHER
P	5 MG/M3*	NONE	5 MG/M3*	10 MG/M3*	

*OIL MIST, MINERAL

SECTION V EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: FLUSH EYES WITH WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION.

SKIN CONTACT: REMOVE CONTAMINATED CLOTHING/SHOES AND WIPE EXCESS FROM SKIN. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER. IF IRRITATION OCCURS, GET MEDICAL ATTENTION. IF MATERIAL IS INJECTED UNDER THE SKIN, GET MEDICAL ATTENTION PROMPTLY TO PREVENT SERIOUS INJURY.

INHALATION: REMOVE VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GET MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN: IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED, EMESIS SHOULD BE INDUCED WITH SUPERVISION. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE EMESIS, GASTRIC LAVAGE USING A CUFFED ENDOTRACHEAL TUBE SHOULD BE

CONSIDERED.

SECTION VI SUPPLEMENTAL HEALTH INFORMATION

AMOCO HAS REPORTED TO THE U.S. EPA PURSUANT TO SECTION 8(E) OF TSCA THAT A SAMPLE OF HYDROTREATED MIDDLE DISTILLATE (CAS REGISTRY NUMBER 64742-46-7) APPLIED REPEATEDLY TO THE SKIN OF EXPERIMENTAL ANIMALS OVER THEIR LIFETIME PRODUCED A WEAK TUMORIGENIC RESPONSE IN THE SKIN. THE FULL REFINING/PROCESS HISTORY OF THIS SAMPLE WAS NOT PROVIDED IN AMOCO'S SUBMISSION.

SECTION VII PHYSICAL DATA

BOILING POINT (DEG F):	**SPECFIC GRAVITY (H2O = 1):**	**VAPOR PRESSURE (MM HG): 12**
>300	0.8833	<0.1

MELTING POINT (DEG F):	**SOLUBILITY IN WATER:**	**VAPOR DENSITY (AIR = 1)**
-40 (POUR POINT)	NEGLIGIBLE	NOT AVAILABLE

VISCOSITY: 12
(CST @ 104 DEG F)

EVAPORATION RATE (NORMAL BUTYL ACETATE = 1): NOT AVAILABLE

APPEARANCE AND ODOR: WHITE LIQUID. SLIGHT HYDROCARBON ODOR.
PHYS/CHEM PROPERTIES: DIELECTRIC STRENGTH: 30 KV (MIN)

SECTION VIII FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD 295 DEG F (COC)
FLAMMABLE LIMITS/PERCENT VOLUME IN AIR: LOWER: N/AVA HIGHER: N/AVA

EXTINGUISHING MEDIA:
USE WATER FOG, FOAM, DRY CHEMICAL OR CO2. DO NOT USE A SIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS:
MATERIAL WILL NOT BURN UNLESS PREHEATED. DO NOT ENTER CONFINED FIRE-SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS), INCLUDING A POSITIVE-PRESSURE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE IDENTIFIED

SECTION IX REACTIVITY

STABLITY: HAZARDOUS POLYMERIZATION WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:
AVOID HEAT, OPEN FLAMES, AND OXIDIZING MATERIALS.

HAZARDOUS DECOMPOSTION PRODUCTS:
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 OTHER UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED UPON COMBUSTION.

SECTION X EMPLOYEE PROTECTION

RESPIRATORY PROTECTION:
IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SECTION IV) USE A NIOSH-APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1910.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS AND PARTICULATES.

PROTECTIVE CLOTHING:
WEAR CHEMICAL-RESISTANT GLOVES AND OTHER PROTECTIVE CLOTHING AS REQUIRED TO MINIMIZE SKIN CONTACT. NO SPECIAL EYE PROTECTION IS ROUTINELY NECESSARY. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THE BEST PROTECTION IS PROVIDED BY NITRILE GLOVES.

ADDITIONAL PROTECTIVE MEASU RES

NONE IDENTIFIED

SECTION XI EMPLOYEE PROTECTION

SPILL OR LEAK PROCEDURES:
MAY BURN ALTHOUGH NOT READILY IGNITABLE. USE CAUTIOUS JUDGMENT WHEN CLEANING UP LARGE SPILLS. *** LARGE SPILLS *** WEAR RESPIRATOR AND PROTECTIVE CLOTHING AS APPROPRIATE. SHUT OFF SOURCE OF LEAK IF SAFE TO DO SO. DIKE AND CONTAIN. REMOVE WITH VACUUM TRUCKS OR PUMP TO STORAGE SALVAGE VESSELS. SOAK UP RESIDUE WITH AN ABSORBENT SUCH AS CLAY, SAND, OR OTHER SUITABLE MATERIALS; DISPOSE OF PROPERLY. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. *** SMALL SPILLS *** TAKE UP WITH AN ABSORBENT MATERIAL AND DISPOSE OF PROPERLY.

SECTION XII SPECIAL PRECAUTIONS

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.

SECTION XIII TRANSPORTATION REQIREMENTS

DEPARTMENT OF TRANSPORTAION CLASSIFICATION:
NOT HAZARDOUS BY D.O.T. REGULATIONS

DOT PROPER SHIPPING NAME: NOT APPLICABLE

OTHER REQUIREMENTS: FOR BARGE SHIPMENTS; USE CARGO INFORMATION CARD SCM 68701, DIALA OIL.

SECTION XIV OTHER REGULATORY CONTROLS

THE COMPONENTS OF THIS PRODUCT ARE LISTED ON THE EPA/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 ATTACHED ENVIRONMENTAL DATA SHEET (EDS) SHOULD ALWAYS BE COPIED AND SENT WITH THE MSDS.

SECTION XV STATE REGULATORY INFORMATION

THE FOLLOWING CHEMICALS ARE SPECIFICALLY LISTED BY INDIVIDUAL STATES; OTHER PROD UCT SPECIFIC HEALTH AND SAFETY DATA IN OTHER SECTIONS OF THE MSDS MAY ALSO BE AP PLICABLE FOR STATE REQUIREMENTS. FOR DETAILS ON YOUR REGULATORY REQUIREMENTS YO U SHOULD CONTACT THE APPROPRIATE AGENCY IN YOUR STATE.

STATE LISTED COMPONENT	CAS NO	PERCENT	STATE CODE
HYDROTREATED LIGHT NAPHTHENIC DISTILLATE	64742-53-6	0-50	MA

CA = CALIFORNIA HAZ. SUBST. LIST; CA65C, CA65R, CA65C/R = CALIFORNIA SAFE DRINKING WATER AND TOXICS ENFORCEMENT ACT OF 1986 OR PROPOSITION 65 LIST; CT = CONNECTICUT TOXIC. SUBST. LIST; FL = FLORIDA SUBST. LIST; IL = ILLINOIS TOX. SUBST. LIST; LA = LOUISIANA HAZ. SUBST. LIST; MA = MASSACHUSETTS SUBST. LIST; ME = MAINE HAZ. SUBST. LIST; MN = MINNESOTA HAZ. SUBST. LIST; NJ = NEW JERSEY HAZ. SUBST. LIST; PA = PENNSYLVANIA HAZ. SUBST. LIST; RI = RHODE ISLAND HAZ. SUBST. LIST.
VOLATILE ORGANIC COMPOUNDS (VOC): THIS PRODUCT IS EXEMPT FROM VOC REPORTING UNDER THE CALIFORNIA CLEAN AIR ACT. SECTION 94510 EXEMPTS ORGANIC COMPOUNDS THAT EITHER HAVE A VAPOR PRESSURE OF <0.1 MM HG @ 20 DEG C OR HAVE MORE THAN 12 CARBON ATOMS.

SECTION XVI SPECIAL NOTES

MSDS SECTION II-A, XV AND EDS SECTION I REVISED TO SHOW CHANGED PERCENTAGE OF INGREDIENTS. EDS SECTIONS III AND IV WERE UPDATED. THE OSHA HAZARD EVALUATION AND REGULATORY STATUS OF THE PRODUCT HAVE NOT CHANGED. A SPANISH TRANSLATION OF THIS MSDS MAY BE OBTAINED BY CALLING 1-800-240-MSDS.

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARD COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

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