Mr. Sandman Inc.		• Service • Sales • Rentals
Industrial Equipment & Sandblasting Supplies	697 Ahua Street, Hon	olulu, HI 96819-2002
MATERIAL SAFETY DATA SH	EET	
~	/10/99	
Rock Drill Lube 680 TELEPHONE NUMBER:		
	NERAL MSDS ASSIS	TANCE
	877-276-7285	
CHEMTREC: 800-424-9300		
NAME AND ADDRESS:		
EQUILON ENTERPRISES LLC		
PRODUCT STEWARDSHIP		
P.O. BOX 674414 HOUSTON, TX 77267-4414		
LEGEND:		
N.D NOT DETERMINEDN.A NOT APPLICABLE< - LESS THAN	N.T- NOT TESTE	D.
Name: Rock Drill Lube 680		
Product Code: 01563		
-	edes: 1999-02-24	ł
Company: EQUILON ENTERPRISES LLC 1.NAME		
MATERIAL IDENTITY		
Product Code and Name: 01563 Rock Drill Lube 680		
Chemical Name and/or Family or Description:		
Rock Drill Lubricants		
2. COMPOSITION/INFORMATION ON INGREDIENTS		
THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSI CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR G OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3 INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSUR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULA Product and/or Component(s) Carcinogenic Accordin OSHA IARC NTP OTHER NONE X	REATER; COMPONEN WHEN PRESENT AT .0 % OR GREATER. E. REFER TO SEC TORY INFORMATION	TS WHICH ARE 1.0 % OR THIS IS NOT TION 14 FOR
Composition: (Sequence Number and Chemical Name) Seq. Chemical Name	CAS Number	Range in %
Seq. chemical Name	CAS Nullider	Range III %
01 # Solvent deasphalted residual petroleum oil	64741-95-3	35.00-49.99
02 # Acid treated heavy naphthenic petroleum		35.00-49.99
distillates		
03 Sulfurized fatty oil		3.00-9.99
03 Sulfurized fatty oil 04	64742-65-0	3.00-9.99 1.00-2.99
<pre>03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum</pre>		
03 Sulfurized fatty oil 04	1200). US ACCORDING TO	1.00-2.99 OSHA
 03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum distillates PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910. # COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDO BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIM MIST. 	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA MERAL OIL
 03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum distillates PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910. # COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDO BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIM 	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA HERAL OIL
<pre>03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum</pre>	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA MERAL OIL
<pre>03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum</pre>	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA HERAL OIL
<pre>03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum</pre>	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA HERAL OIL
<pre>03 Sulfurized fatty oil 04 # Solvent-dewaxed heavy paraffinic petroleum</pre>	1200). NUS ACCORDING TO NIT (PEL) FOR MIN	1.00-2.99 OSHA HERAL OIL

0210mg/m3STEL ACGIH (MINERAL OIL MIST)045mg/m3TWA-OSHA (MINERAL OIL MIST)045mg/m3TWA-ACGIH (MINERAL OIL MIST)0410mg/m3STEL ACGIH (MINERAL OIL MIST)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW Appearance: Dark red liquid Odor: Not determined WARNING STATEMENT NONE CONSIDERED NECESSARY HMIS NFPA Reactivity: 0 Health: Health: 1 1 Reactivity: 0 Flammability: 1 Special : -Flammability: 1 Special : -POTENTIAL HEALTH EFFECTS EYE INHALATION INGESTION SKIN Primary Route of Exposure: X Х х _ _ EFFECTS OF OVEREXPOSURE Acute: Eves: May cause minimal irritation, experienced as temporary discomfort. Skin: Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling. Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects. Inhalation: Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness. Ingestion: If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur. Sensitization Properties: Unknown. Chronic: No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data. Medical Conditions Aggravated by Exposure: Because of its irritating properties, repeated skin contact may aggravate an existing dermatitis (skin condition). Other Remarks: When overheated, product may release hydrogen sulfide (H2S) gas. H2S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur. 4. FIRST AID MEASURES Eves: Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists. Skin: Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

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Ingestion:
 If more than several mouthfuls of this material are swallowed, give two
 glasses of water (16 oz.). Get medical attention.
 Inhalation:
 If irritation, headache, nausea, or drowsiness occurs, remove to fresh air.
 Get medical attention if breathing becomes difficult or respiratory
 irritation persists.
 Other Instructions:
 Remove and dry-clean or launder clothing soaked or soiled with this
 material before reuse. Dry cleaning of contaminated clothing may be
 more effective than normal laundering. Inform individuals responsible for
 cleaning of potential hazards associated with handling contaminated
 clothing.
5. FIRE-FIGHTING MEASURES
Ignition Temperature - AIT (degrees F):
   Not determined.
Flash Point (degrees F):
    390 D-92
Flammable Limits (%):
   Lower: Not determined.
   Upper: Not determined.
Recommended Fire Extinguishing Agents And Special Procedures:
    Use water spray, dry chemical, foam, or carbon dioxide to extinguish
    flames. Use water spray to cool fire-exposed containers. Water or
    foam may cause frothing.
Unusual or Explosive Hazards:
    Hydrogen sulfide (H2S) may be released if overheated.
Extinguishing Media Which Must Not Be Used:
   Not determined.
Special Protective Equipment for Firefighters:
   Wear full protective clothing and positive pressure breathing apparatus.
6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)
Procedures in Case of Accidental Release, Breakage or Leakage:
 Ventilate area. Avoid breathing vapor. Wear appropriate personal
 protective equipment, including appropriate respiratory protection. Contain
 spill if possible. Wipe up or absorb on suitable material and shovel up.
 Prevent entry into sewers and waterways. Avoid contact with skin, eyes or
 clothing.
7. HANDLING AND STORAGE
Precautions to be Taken in
 Handling:
  Minimum feasible handling temperatures should be maintained.
 Storage:
  Periods of exposure to high temperatures should be minimized. Water
  contamination should be avoided.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Protective Equipment (Type)
 Eye/Face Protection:
  Safety glasses, chemical type goggles, or face shield recommended to
  prevent eye contact.
 Skin Protection:
  Workers should wash exposed skin several times daily with soap and water.
   Soiled work clothing should be laundered or dry-cleaned.
  Respiratory Protection:
   Airborne concentrations should be kept to lowest levels possible. If
  vapor, mist or dust is generated and the occupational exposure limit of the
  product, or any component of the product, is exceeded, use appropriate
  NIOSH or MSHA approved air purifying or air supplied respirator after
  determining the airborne concentration of the contaminant. Air supplied
  respirators should always be worn when airborne concentration of the
  contaminant or oxygen content is unknown.
 Ventilation:
  Adequate to meet component occupational exposure limits (see Section 2).
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Exposure Limit for Total Product: None established for product; refer to Section 2 for component exposure limits. 9. PHYSICAL AND CHEMICAL PROPERTIES Appearance: Dark red liquid Odor: Not determined Boiling Point (degrees F): Not determined. Melting/Freezing point (degrees F): Not applicable. Specific Gravity (water=1): .92 pH of undiluted product: Not applicable. Vapor Pressure: Not determined. Viscosity: 660 cSt at 40.0 C VOC Content: Not determined. Vapor Density (air=1): Not determined. Solubility in Water (%): Not determined. Other: None 10. STABILITY AND REACTIVITY This Material Reacts Violently With: (If Others is checked below, see comments for details) Air Water Heat Strong Oxidizers Others None of These Х Comments: Under extreme temperatures or extended storage periods, hydrogen sulfide (H2S) gas may accumulate in the head-space of container. Products Evolved When Subjected to Heat or Combustion: Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of sulfur (may include hydrogen sulfide). Hazardous Polymerizations: DO NOT OCCUR 11. TOXICOLOGICAL INFORMATION TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA) Median Lethal Dose Oral: LD50 Similar product > 10.00 g/kg (rat) practically non-toxic Inhalation: Not determined. Dermal: LD50 Similar product > 8.00 g/kg (rabbit) practically non-toxic Irritation Index, Estimation of Irritation (Species) Skin: (Draize) Similar product .71 /8.0 (rabbit) slightly irritating Eyes: (Draize) Similar product 2.67 /110 (rabbit) no appreciable effect Sensitization: Not determined. Other: None 12. DISPOSAL CONSIDERATIONS Waste Disposal Methods This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form.

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Under RCRA, it is the responsibility of the user of the product to deter-
 mine at the time of disposal, whether the product meets RCRA criteria for
 hazardous waste. This is because product uses, transformations, mixtures,
 processes, etc. may render the resulting materials hazardous.
Remarks
 None
13. TRANSPORT INFORMATION
Transportation
 DOT:
   Proper Shipping Name:
   Not regulated
  IMDG:
  Proper Shipping Name:
   Not evaluated
  ICAO:
  Proper Shipping Name:
   Not evaluated
 TDG:
  Proper Shipping Name:
   Not evaluated
14. REGULATORY INFORMATION
Federal Regulations:
  SARA Title III:
   Section 302/304 Extremely Hazardous Substances
   Seq. Chemical Name
                                                     CAS Number
                                                                    Range in %
  None
   Section 302/304 Extremely Hazardous Substances (CONT)
   Seq. TPQ
                   RQ
  None
   Section 311 Hazardous Categorization:
     Acute Chronic Fire Pressure Reactive
                                                     N/A
                                                      Х
                                                      _
   Section 313 Toxic Chemical
   Chemical Name
                                                CAS Number
                                                               Concentration
  None
  CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)
   Seq. Chemical Name
                                                     CAS Number
                                                                   Range in %
  None
 CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):
  Seq. RQ
  None
 TSCA Inventory Status:
  This product, or its components, are listed on or are exempt from the
   Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
 Other:
  None.
 State Regulations:
 California Proposition 65:
 The following detectable components of this product are substances,
 or belong to classes of substances, known to the State of California
 to cause cancer and/or reproductive toxicity.
  Chemical Name
                                                CAS Number
  None
 International Regulations:
 WHMIS Classification:
  Not controlled
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Canada Inventory Status:
  Not determined.
  EINECS Inventory Status:
  Not determined.
  Australia Inventory Status:
  Not determined.
  Japan Inventory Status:
  Not determined.
15. ENVIRONMENTAL INFORMATION
Aquatic Toxicity:
 LC50-96hr Aquatic toxicity rating is > 1000.00 mg/liter mysid shrimp (marine)
  practically non-toxic
  LC50-96hr Aquatic toxicity rating is > 1000.00 mg/liter (rainbow trout)
  practically non-toxic
  EC50-96 hr Aquatic toxicity rating is = 31.00 mg/liter Selenastrum (cell
  dens.) slightly toxic
  EC50-48hr Aquatic toxicity rating is > 1000.00 mg/liter (Daphnia magna)
  practically non-toxic
 LC50-96hr Aquatic toxicity rating is > 1000.00 mg/liter sheepshead
 minnow(marine) practically non-toxic
 Mobility:
 Not determined.
 Persistence and Biodegradability:
 This product is reported to have a slow (< 30%) rate of biodegradation in a
  test for ready biodegradation.
 Potential to Bioaccumulate:
 Not determined.
Remarks:
 None
16. OTHER INFORMATION
 None
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.
TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH
RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE
APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH
MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT
DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN
AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO
BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF
EQUIVA SERVICES, LLC.
Date: 1999-03-10
                           New
                                  х
                                       Revised, Supersedes: 1999-02-24
 Inquiries regarding MSDS should be directed to:
   Equiva Services LLC
   Manager Product Stewardship
  P.O. Box 674414
  Houston, TX 77267-4414
17. PRODUCT LABEL
                                                       Label Date: 1999-03-10
READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING
 OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD
 COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS
LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS
AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT
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OR OTHER RELATED REGULATORY REQUIREMENTS. 01563 Rock Drill Lube 680 WARNING STATEMENT NONE CONSIDERED NECESSARY PRECAUTIONARY MEASURES -Avoid prolonged breathing of vapor, mist, or gas. -Workers should wash exposed skin several times daily with soap and water. FIRST AID Eve Contact: Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists. Skin Contact: Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists. Ingestion: If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention. Inhalation: If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists. Note to Physician: None FIRE In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers. Chemical Name CAS Number Range in % # Solvent deasphalted residual petroleum oil 64741-95-3 35.00-49.99 Acid treated heavy naphthenic petroleum 64742-18-3 35.00-49.99 # distillates Sulfurized fatty oil 3.00-9.99 64742-65-0 1.00-2.99 Solvent-dewaxed heavy paraffinic petroleum # distillates PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200). # COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST. Pennsylvania Special Hazardous Substance(s) CAS Number Range in % None NFPA HMTS Health:1Reactivity:0Health:1Reactivity:0Flammability:1Special:-Flammability:1Special:-Transportation DOT: Proper Shipping Name: Not regulated CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum