Material Safety Data Sheet

SECTION I - Material Identity

Item Name................................................. LUBRICATING OIL, ENGINE
Part Number/Trade Name.......................... KENDALL NON-DETERGENT MOTOR OIL, ALL SAE GRA
National Stock Number.......................... 9150010798310
CAGE Code................................................. 75273
Part Number Indicator.............................. A
MSDS Number............................................. 133843
HAZ Code.................................................. B

SECTION II - Manufacturer's Information

Manufacturer Name........................................ WITCO CHEMICAL CORP, KENDALL REFINING CO. DIVISION
P.O. Box.................................................. 2000
Street.................................................. 77 N KENDALL AVENUE
City....................................................... BRADFORD
State....................................................... PA
Country................................................... US
Zip Code.................................................. 16701-1726
Emergency Phone....................................... 814-368-6111
Information Phone...................................... 814-368-6111

MSDS Preparer's Information

MSDS Preparer Name...................................... LUTHER DROMGOLD
Date MSDS Prepared/Revised............................. 02MAY90
Date of Technical Review.............................. 29JUL92
Active Indicator......................................... Y
Item Manager............................................. CX

Alternate Vendors

Vendor #1 Name............................................ INLAND PACKAGING
Vendor #1 CAGE........................................... 66172
Vendor #2 Name........................................... CROWN OIL & CHEMICAL CO. (504-733-9133)
Vendor #2 CAGE........................................... 0CF76
Vendor #3 Name........................................... DAVIS HOWLAND OIL CORP. (716-473-6650)
Vendor #3 CAGE........................................... 5A565
Vendor #4 Name........................................... MALTER INTERNATIONAL BULK CHEMICAL DIV.
Vendor #4 CAGE........................................... 27978
Vendor #5 CAGE........................................... BHJGM


7/22/02
SECTION III - Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Specification Number</td>
<td>N/R</td>
</tr>
<tr>
<td>Specification Type/Grade/Class</td>
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<tr>
<td>Hazard Storage Compatibility Code</td>
<td>N1</td>
</tr>
<tr>
<td>NRC License Number</td>
<td>N/R</td>
</tr>
<tr>
<td>Net Propellant Weight (Ammo)</td>
<td>N/R</td>
</tr>
<tr>
<td>Appearance/Odor</td>
<td>DARK GREEN-BROWN LIQUID WITH MOTOR OIL ODOR</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>&gt;626F, &gt;330C</td>
</tr>
<tr>
<td>Melting Point</td>
<td>&lt;10F, &lt;-12C</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>NIL</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>NOT VOLATI</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.86 - 0.89</td>
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<tr>
<td>Decomposition Temperature</td>
<td>N/R</td>
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<tr>
<td>Evaporation Rate</td>
<td>NIL</td>
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<tr>
<td>Solubility in Water</td>
<td>NIL</td>
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<tr>
<td>Percent Volatiles by Volume</td>
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</tr>
<tr>
<td>Chemical pH</td>
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<tr>
<td>Corrosion Rate</td>
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<td>Container Pressure Code</td>
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<tr>
<td>Temperature Code</td>
<td>8</td>
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<tr>
<td>Product State Code</td>
<td>U</td>
</tr>
</tbody>
</table>

SECTION IV - Fire and Explosion Hazard Data

- Flash Point: 380
- Flash Point Method: COC
- Lower Explosion Limit: 1
- Upper Explosion Limit: 10
- Extinguishing Media: USE Carbon Dioxide, Foam, Dry Chemical, or Water Fog.
- Special Fire Fighting Procedures: FIRE FIGHTERS SHOULD USE NIOSH APPROVED SCBA & FULL PROTECTIVE EQUIPMENT WHEN FIGHTING CHEMICAL FIRE. USE WATER SPRAY TO COOL NEARBY CONTAINERS EXPOSED TO FIRE.
- Unusual Fire/Explosion Hazards: NONE SPECIFIED; FIRE OR EXCESSIVE HEAT MAY CAUSE PRODUCTION OF HAZARDOUS DECOMPOSITION PRODUCTS.

SECTION V - Reactivity Data

- Stability: YES
- Stability Conditions to Avoid: HIGH TEMPERATURES, SPARKS, AND OPEN FLAMES
- Materials to Avoid: STRONG OXIDIZING AGENTS
- Hazardous Decomposition Products: CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF PHOSPHORUS AND SULFUR AND OTHER UNIDENTIFIED COMPONENTS.
- Hazardous Polymerization: NO
Polymerization Conditions to Avoid...... NOT APPLICABLE
LD50 - LD50 Mixture........................ TLV IS 5 MG/M3 FOR OIL MIT.

SECTION VI - Health Hazard Data

Route of Entry: Skin.......................... YES
Route of Entry: Ingestion...................... YES
Route of Entry: Inhalation...................... N/K

Health Hazards - Acute and Chronic...... ACUTE: IRRITATION OF EYES AND
SKIN; RESPIRATORY OR G.I. TRACTS IN CASE OF
OIL MIST/VAPORS; CNS EFFECTS LIKE
HEADACHE, DIZZINESS, NAUSEA, VOMITING
POSSIBLE. CHRONIC: DRYING OF SKIN, DEPATTING
OR DERMATITIS.

Carcinogenity: NTP......................... NO
Carcinogenity: IARC....................... NO
Carcinogenity: OSHA...................... NO
Explanation of Carcinogenity................ DATA PER MSDS
Symptoms of Overexposure.................. SEE HEALTH HAZARDS DATA.
Medical Cond. Aggravated by Exposure..... PERSONS WITH A HISTORY OF AILMENTS OR WITH
A PRE-EXISTING DISEASE INVOLVING THE EYES,
SKIN, OR RESPIRATORY TRACT MAY BE AT
INCREASED RISK FROM EXPOSURE.
Emergency/First Aid Procedures............ INHALATION: REMOVE TO FRESH AIR.
RESCUE IF NOT BREATHING. GET MEDICAL
ATTENTION. EYES: IMMEDIATELY FLUSH WITH
PLENTY OF WATER FOR 15 MINUTES HOLDING
EYELIDS OPEN. GET MEDICAL ATTENTION.
SKIN: REMOVE CONTAMINATED CLOTHING. WASH
WITH SOAP AND WATER. IF IRRITATION
PERSISTS, GET MEDICAL ADVICE. INGESTION: DO
NOT INDUCE VOMITING. GIVE NOTHING BY MOUTH
IF UNCONSCIOUS. GET IMMEDIATE MEDICAL
ATTENTION.

SECTION VII - Precautions for Safe Handling and Use

Steps if Material Released/Spilled........ USE PROPER PERSONAL PROTECTION; REMOVE ALL
IGNITION SOURCES; CONTAIN FREE MATERIAL IF
POSSIBLE; USE SUITABLE INERT ABSORBENT
MATERIAL AND RECOVER FOR PROPER DISPOSAL
IN AN APPROVED CONTAINER.
Neutralizing Agent......................... NOT APPLICABLE.
Waste Disposal Method..................... CONSULT LOCAL AUTHORITIES. DISPOSAL MUST BE
MADE IN ACCORDANCE WITH ALL APPLICABLE
FEDERAL, STATE AND LOCAL LAWS AND
REGULATIONS.
Handling and Storage Precautions.......... RE IN A COOL, DRY, WELL VENTILATED AREA.
KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN
USE. PROTECT CONTAINERS FROM PHYSICAL
DAMAGE. DO NOT STORE > 100F
Other Precautions.......................... DO NOT TAKE INTERNALLY. DO NOT BREATH
MIST. AVOID PROLONGED OR REPEATED
BREATHING OF VAPOR. AVOID CONTACT WITH
EYES. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.

SECTION VIII - Control Measures

Respiratory Protection.......................... NONE NORMALLY NEEDED; USE NIOSH/MSHA APPROVED RESPIRATOR FOR ORGANIC VAPORS/MIST AS REQUIRED IF ABOVE PEL/TLV OR SCBA IN AN ENCLOSED AREA.

Ventilation........................................... NORMAL ROOM VENTILATION OR LOCAL/GENERAL TO MAINTAIN PEL/TLV.

Protective Gloves................................. NEOPRENE, NITRILE, OR NATURAL RUBBER

Eye Protection...................................... SAFETY GOGGLES WITH OPTIONAL FACE SHIELD

Other Protective Equipment....................... EYE WASH STATION, WORK CLOTHING AND APRON AS REQUIRED.

Work Hygienic Practices.......................... OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING OR FOOTWEAR.

Supplemental Health/Safety Data.................. AVOID PROLONGED OR REPEATED EXPOSURE. DO NOT GET ON SKIN OR IN EYES. DO NOT BREATHE VAPORS OR MISTS.

Disposal Code...................................... 0

SECTION IX - Label Data

Protect Eye.......................................... YES
Protect Skin........................................ YES
Protect Respiratory............................... NO
Chronic Indicator................................... UNKNOWN
Contact Code....................................... SLIGHT
Fire Code........................................... UNKNOWN
Health Code........................................ UNKNOWN
React Code......................................... UNKNOWN

SECTION X - Transportation Data

Container Quantity.............................. 1
Unit of Measure.................................... QT

SECTION XI - Site Specific/Reporting Information

Volatile Organic Compounds (P/G).............. 0
Volatile Organic Compounds (G/L).............. 0

SECTION XII - Ingredients/Identity Information

Ingredient #........................................ 01
Ingredient Name.................................... LUBRICATING OIL (MIXTURE) PETROLEUM HYDROCARBONS
CAS Number........................................ MIXTURE

NIOSH Number........................... 1000276LO
Proprietary.................................. NO
Percent..................................... N/K
OSHA PEL................................... 5 MG/M3, AS OIL MIST
ACGIH TLV................................... 5 MG/M3, AS OIL MIST
Recommended Limit........................... NOT ESTABLISHED
Ingredient #................................. 02
Ingredient Name............................. ADDITIVES
CAS Number................................. UNKNOWN
NIOSH Number.............................. 1000144AD
Proprietary.................................. NO
Percent..................................... N/K
OSHA PEL................................... UNKNOWN
ACGIH TLV................................... UNKNOWN
Recommended Limit........................... NOT ESTABLISHED

NOTICE: For additional information, contact BIOENVIRONMENTAL

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