FARMLAND INDUSTRIES PETROLEUM DIV -- K-1 KEROSENE - KEROSENE MATERIAL SAFETY DATA SHEET NSN: 9140012924460 Manufacturer's CAGE: 6G072 Part No. Indicator: B Part Number/Trade Name: K-1 KEROSENE ______ General Information ______ Item Name: KEROSENE Company's Name: FARMLAND INDUSTRIES INC. PETROLEUM DIVISION Company's P. O. Box: 7305 Company's City: KANSAS CITY Company's State: MO Company's Country: US Company's Zip Code: 64116-0005 Company's Emerg Ph #: 316-251-4000/800-424-9300(CHEMTREC) Company's Info Ph #: 816-459-4100 Record No. For Safety Entry: 013 Tot Safety Entries This Stk#: 014 Status: FE Date MSDS Prepared: 22FEB91 Safety Data Review Date: 19JUL94 Supply Item Manager: KY MSDS Serial Number: BTRYG Spec Type, Grade, Class: 1-K GRADE Hazard Characteristic Code: F4 Unit Of Issue: GL Unit Of Issue Container Oty: BULK ______ Ingredients/Identity Information ______ Proprietary: NO Ingredient: KEROSENE (ALIPHATIC PETROLEUM SOLVENT/PARAFFINS, NAPHTHENES, OLEFINS, AROMATIC) Ingredient Sequence Number: 01 Percent: >95 NIOSH (RTECS) Number: OA5500000 CAS Number: 8008-20-6 OSHA PEL: 100 PPM (MFR) ACGIH TLV: NOT ESTABLISHED Other Recommended Limit: NONE SPECIFIED Proprietary: NO

Ingredient: 1,2,4-TRIMETHYLBENZENE (SARA III)

Ingredient Sequence Number: 02

Percent: <2

NIOSH (RTECS) Number: DC3325000

CAS Number: 95-63-6 OSHA PEL: 25 PPM

ACGIH TLV: 25 PPM; 9394

Other Recommended Limit: NONE RECOMMENDED

Appearance And Odor: PALE YELLOW TO WATER WHITE, OILY LIQUID WITH KEROSEN

ODOR

Boiling Point: >300F,>149C

Vapor Pressure (MM Hg/70 F): <5

Vapor Density (Air=1): 4.5

Specific Gravity: 0.8

Decomposition Temperature: UNKNOWN Evaporation Rate And Ref: <1 (ETHER=1)

Solubility In Water: NEGLIGIBLE Percent Volatiles By Volume: 100 Corrosion Rate (IPY): UNKNOWN

Fire and Explosion Hazard Data

Flash Point: 125F,52C Flash Point Method: PMCC Lower Explosive Limit: 0.7 Upper Explosive Limit: 5.0

Extinguishing Media: FOAM, DRY CHEMICAL AND CARBON DIOXIDE. USE WATER

SPRAY TO KEEP FIRE EXPOSED CONTAINERS COOL & FLUSH SPILLS AWAY.

Special Fire Fighting Proc: DO NOT ENTER ANY ENCLOSED OR CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT. THIS MAY INCLUDE SELF-CONTAINE BREATHING APPARATUS.

Unusual Fire And Expl Hazrds: THIS MATERIAL RELEASES FLAMMABLE VAPORS AT NORMAL ATMOSPHERIC TEMPERATURES AND PRESSURES; VAPORS WHEN MIXED IN CERTA PROPORTION WITH AIR CAN BURN OR EXPLODE.

Reactivity Data

Stability: YES

Cond To Avoid (Stability): HIGH HEAT, SPARKS, STATIC ELECTRICITY, OPEN FLAMES AND OTHER SOURCES OF IGNITION

Materials To Avoid: STRONG OXIDIZING AGENTS

Hazardous Decomp Products: FUMES, SMOKE, CARBON MONOXIDE, CARBON DIOXIDE, ALDEHYDE AND OTHER DECOMPOSITION PRODUCTS, IN THE CASE OF INCOMPLETE BURN Hazardous Poly Occur: NO

Conditions To Avoid (Poly): NONE

Health Hazard Data

LD50-LC50 Mixture: UNKNOWN

Route Of Entry - Inhalation: YES

Route Of Entry - Skin: YES

Route Of Entry - Ingestion: YES

Health Haz Acute And Chronic: ACUTE- INHALATION: CENTRAL NERVOUS SYSTEM DEPRESSION OR RESPIRATORY IRRITATION. EYES- IRRITATION. INGESTION: HARMFUL IRRITATION OF GI TRACT. ASPIRATION INTO THE LUNGS CAN CAUSE SEVERE CHEMIC PNEUMONITIS, WHICH CAN BE FATAL. SKIN: PROLONGED OR REPEATED EXPOSURE MAY CAUSE IRRITATION. CHRONIC: DERMATITIS.

Carcinogenicity - NTP: NO Carcinogenicity - IARC: NO Carcinogenicity - OSHA: NO

Signs/Symptoms Of Overexp: HEADACHE, DIZZINESS, NAUSEA, VOMITING & LOSS C COORDINATION. EYE CONTACT MAY CAUSE IRRITATION. SKIN: IRRITATION. SWALLOWIN

CAN CAUSE VOMITING, DIARRHEA & RESTLESSNESS.

Med Cond Aggravated By Exp: SKIN, CNS, AND IMPAIRED RESPIRATORY FUNCTION. Emergency/First Aid Proc: GET MEDICAL ATTENTION IF SYMPTOMS PERSIST. SKIN:WASH WITH WATERLESS CLEANER, THEN WITH SOAP & WATER. EYE:FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. INHALATION:REMOVE TO FRESH AI & PROVIDE OXYGEN/CPR IF NEEDED. INGESTION:DO NOT INDUCE VOMITING. IF VOMITING OCCURS, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION. CALL A PHYSICIAN.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: SHUT OFF AND ELIMINATE ALL IGNITION SOURCES KEEP PEOPLE AWAY. RECOVER FREE PRODUCT. ADD SUITABLE ABSORBENT TO SPILL AREA. MINIMIZE BREATHING VAPORS. CONTAIN SPILL BY DIKING OR IMPOUNDING. PROVIDE ADEQUATE VENTILATION. PROTECT SKIN OR CLOTHING.

Neutralizing Agent: NONE

Waste Disposal Method: DISPOSE BY A LICENSED WASTE DISPOSAL COMPANY IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. Precautions-Handling/Storing: STORAGE-STORE IN COOL, VENTILATED AREA AWAY FROM FLAME, SPARKS, STATIC ELECTRICITY. KEEP CONTAINER CLOSED.

Other Precautions: USE ONLY IN WELL VENTILATED AREA. DO NOT WELD, HEAT OR DRILL CONTAINER. EMPTY CONTAINER STILL CONTAIN HAZARDOUS/EXPLOSIVE VAPOR/LIQUID. DO NOT USE PRESSURE TO EMPTY DRUM OR EXPLOSION MAY RESULT. TOXIC FUMES MAY ACCUMULATE AND CAUSE DEATH.

Control Measures

Respiratory Protection: USE NIOSH-APPROVED EQUIPMENT WHEN AIRBORNE LIMITS EXCEEDED.

Ventilation: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves: RUBBER

Eye Protection: CHEMICAL SAFETY GLASSES/GOGGLES

Other Protective Equipment: REMOVE CONTACT LENSES AND WEAR CHEMICAL SAFET GLASSES WHERE CONTACT WITH LIQUID MAY OCCUR.

Work Hygienic Practices: WASH HANDS THOROUGHLY AFTER HANDLING THIS PRODUCT.

Suppl. Safety & Health Data: USE SPARKS-PROOF TOOLS. THIS LIQUID IS VOLATILE AND GIVES OFF INVISIBLE VAPORS. EITHER THE LIQUID OR VAPOR MAY SETTLE IN LOW AREAS AND TRAVEL SOME DISTANCE ALONG THE GROUND OR SURFACE IGNITION SOURCES WHERE THEY MAY IGNITE OR EXPLODE. PROVIDE ADEQUATE VENTILATION.

Transportation Data

Trans Data Review Date: 94200

DOT PSN Code: ICS

DOT Proper Shipping Name: KEROSENE

DOT Class: 3

DOT ID Number: UN1223 DOT Pack Group: III

DOT Label: FLAMMABLE LIQUID

IMO PSN Code: IRR

IMO Proper Shipping Name: KEROSENE IMO Regulations Page Number: 3375

IMO UN Number: 1223 IMO UN Class: 3.3

IMO Subsidiary Risk Label: -

IATA PSN Code: OVO IATA UN ID Number: 1223

IATA Proper Shipping Name: KEROSENE

IATA UN Class: 3

IATA Label: FLAMMABLE LIQUID

AFI PSN Code: OVO

AFI Prop. Shipping Name: KEROSENE

AFI Class: 3

AFI ID Number: UN1223 AFI Pack Group: III AFI Basic Pac Ref: 7-7

Disposal Data

Label Data

Label Required: YES

Technical Review Date: 19JUL94

MFR Label Number: UNKNOWN

Label Status: F

Common Name: K-1 KEROSENE Signal Word: WARNING!

Acute Health Hazard-Moderate: X

Contact Hazard-Moderate: X
Fire Hazard-Moderate: X
Reactivity Hazard-None: X

Special Hazard Precautions: ACUTE-INHALATION OF EXCESSIVE CONCENTRATIONS OF FUME/MIST CAN BE IRRITATING TO THE RESPIRATORY PASSAGES & CAN CAUSE HEADACHE, DIZZINESS, NAUSEA, VOMITING & LOSS OF COORDINATION. EYE CONTACT MAY CAUSE IRRITATION. SKIN CONTACT MAY AGGRAVATE DERMATITIS. SWALLOWING CAN CAU VOMITING, DIARRHEA & RESTLESSNESS. CHRONIC-DERMATITIS. STORAGE-STORE IN COOL VENTILATED AREA AWAY FROM IGNITION SOURCES. FIRST AID-GET MEDICAL ATTENTIC IF SYMPTOMS PERSIST. SKIN: WASH WITH WATERLESS CLEANER, THEN WITH SOAP & REMOVE TO FRESH AIR & PROVIDE OXYGEN/CPR IF NEEDED. ORAL: DO NOT INDUCE VOMITING. CALL PHYSICIA

Protect Eye: Y Protect Skin: Y

Protect Respiratory: Y

Label Name: FARMLAND INDUSTRIES INC. PETROLEUM DIVISION

Label P.O. Box: 7305 Label City: KANSAS CITY

Label State: MO

Label Zip Code: 64116-0005

Label Country: US

Label Emergency Number: 316-251-4000/800-424-9300(CHEMTREC)