MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CAMIE A1000 DRY LUBRICANT RLS | DENTIFICATION NUMBER: FCR1000 DRY LUBRICANT RLS | PRODUCT USE/CLASS | D

DATE PRINTED: 05/19/98

SUPPLIER:

Camie-Campbell 9225 Watson Industrial Park St. Louis, MO 63126 MANUFACTURER: Camie-Campbell 9226 Watson Industrial Park St. Louis. MO 63126

EMERGENCY TELEPHONE: 800-424-9300 24 HOUR EMERGENCY PHONE

(See Section 16 for abbreviation legend)

EMERGENCY TELEPHONE: 800-424-9300 24 HOUR EMERGENCY PHONE

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM		CHEMICAL	NAME	CAS N	UMBER	WT/WT & LESS THAN
01 02 03 04 05	ISOBUTANE METHANE, DIMETHOXY PROPANE ISOPROPYL ALCOHOL CARBON DIOXIDE TELOMER OF TETRAFLUOROETHYLENE			109-87- 74-98-6 67-63-6 124-38-	75-28-5 109-87-5 74-98-6 67-63-0 124-38-9 65530-85-0	
ITEM	TLV-TWA	GIH TLV-STEL	EXPOSURE LIMIT OSH PEL-TWA		COMPANY TLV-TWA	ŞKIN
01 02 03 04 05	NO INFO NO INFO NO INFO NO INFO NO INFO	NO INFO NO INFO NO INFO 500ppm NO INFO NO INFO	NO INFO 1000 ppm 1000 ppm 400 ppm 10000 ppm NO INFO	NO INFO NO INFO NO INFO 30000 ppm NO INFO	1000 ppm NO INFO NO INFO NO INFO NO INFO NO INFO	NO NO NO NO

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: KEEP FROM REACH OF CHILDREN. DO NOT PUNCTURE. INCINERATE, OR PLACE AEROSOL PRODUCT CONTAINERS IN COMPACTORS. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED SINCE CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID). ALL HAZARD PRECAUTIONS

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Product: FCR1000

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SECTION 3 - HAZARDS IDENTIFICATION

GIVEN HUST BE OBSERVED. DO NOT FLAME CUT, BRAZE, OR USE WELDING TORCH. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THIS PRODUCT MAY BE HARMFUL OR FATAL.

EFFECTS OF OVEREXPOSURE - EYE CONTACT: CAN CAUSE SEVERE IRRITATION. REDNESS. TEARING. BLURRED VISION. . .

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION DEFATTING. DERMATITIS.

EFFECTS OF OVEREXPOSURE - INHALATION: INHALATION OF FLUORINE COMPOUNDS RELEASED AS THERMAL DECOMPOSITION PRODUCTS MAY CAUSE LUNG IRRITATION AND PULMONARY EDEMA WHICH REQUIRE MEDICAL TREATMENT. INHALATION OF FUMES OR SMOKE FROM BURNING THE PRODUCT MAY CAUSE POLYMER FUME FEVER, A TEMPORARY FLU-LIKE ILLNESS WITH FEVER, CHILLS, AND SOMETIMES COUGH, OF APPROXIMATELY 24 HOURS DURATION. REPEATED EPISODES OF POLYMER FUME FEVER MAY CAUSE LUNG DAMAGE. EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION. METHANE, DIMETHOXY CONTAINS LESS THAN SPPN OF FORMALDEHYDE, BUT IS CAPABLE OF EMITTING FREE FORMALDEHYDE AND IS COVERED BY THE OSHA FORMALDEHYDE STANDARD.

EFFECTS OF OVEREXPOSURE - INGESTION: INGESTION OF ISOPROPYL ALCOHOL MAY CAUSE NAUSEA, VOMITING, ABDOMINAL PAIN, FLUSHING OF THE FACE, HYPOTENSION, WEAKNESS AND LOSS OF CONSCIOUSNESS; OR ABNORMAL LIVER AND KIDNEY FUNCTIONS.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

FIRST AID - SKIN CONTACT: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

FIRST AID - INHALATION: REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. GIVE ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. KEEP PERSON WARM AND QUIET. GET MEDICAL ATTENTION.

FIRST AID - INGESTION: DO NOT INDUCE VOMITING. GIVE TWO GLASSES OF WATER IF CONSCIOUS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET IMMEDIATE MEDICAL ATTENTION.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: -156 F (PENSKY-MARTENS C.C.) LOWER EXPLOSIVE LIMIT: 1.6 %
UPPER EXPLOSIVE LIMIT: 17.6 %

AUTOIGNITION TEMPERATURE: N.D.

EXTINGUISHING MEDIA: CO2 DRY CHEMICAL FOAM WATER FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT. FOR AEROSOL PRODUCTS — EXPOSURE TO TEMPERATURES OVER 136F MAY CAUSE CONTAINERS TO BURST, RELEASING HIGHLY FLAMMABLE GAS.

SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES. KEEP FIRE EXPOSED CONTAINERS COOL WITH WATER FOG.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: ELIMINATE SOURCES OF IGNITION & VENTILATE AREA. PERSONS NOT PROPERLY EQUIPPED SHOULD BE EXCLUDED FROM AREA. STOP SPILL AT SOURCE -PREVENT SPREADING. AVOID INHALATION OF VAPORS. AVOID SKIN CONTACT WITH LIQUID. SOAK UP ON ABSORBENT MATERIAL AND PLACE INTO PROPER CONTAINER FOR DISPOSAL. USE NON-SPARKING SCOOPS FOR FLAMMABLE MATERIALS. CLEAN WALKING SURFACES THOROUGHLY TO REDUCE SLIPPING HAZARD.

SECTION 7 - HANDLING AND STORAGE

HANDLING: No Information.

STORAGE: DO NOT STORE ABOVE 120F. DO NOT STORE IN DIRECT SUNLIGHT. KEEP AWAY FROM HEAT SOURCES, OPEN FLAME, SPARKS. DO NOT STORE ABOVE 120F. DO NOT STORE IN DIRECT SUNLIGHT.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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

RESPIRATORY PROTECTION: IF WORK PLACE EXPOSURE LIMITS OF PRODUCT OR ANY COMPONENT IS EXCEEDED, USE A NIOSH/MSHA APPROVED RESPIRATOR. CONSULT YOUR SAFETY EQUIPMENT SUPPLIER FOR RECOMMENDATIONS.

SKIN PROTECTION: WEAR IMPERVIOUS GLOVES IF METHOD OF USE INVOLVES SKIN CONTACT WITH PRODUCT. CONSULT YOUR SAFETY SUPPLY VENDOR FOR GLOVE RECOMMENDATIONS.

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. SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

EYE PROTECTION: WEAR SAFETY GLASSES AT MINIMUM, MORE EXTENSIVE PROTECTION MAY BE NECESSARY DEPENDING ON HOW THE PRODUCT IS TO BE USED.

OTHER PROTECTIVE EQUIPMENT: WEAR IMPERVIOUS CLOTHING IF BODILY EXPOSURE IS ANTICIPATED. CONSULT YOUR SAFETY SUPPLY VENDOR FOR RECOMMENDATIONS.

HYGIENIC PRACTICES: WASH HANDS BEFORE EATING OR SHOKING. SHOKE IN DESIGNATED AREAS. ONLY. REMOVE AND LAUNDER CLOTHING IF CONTAMINATED.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE : -109 - 212 F VAPOR DENSITY : Is heavier than air ODOR : SLIGHT ALCOHOL ODOR THRESHOLD : N.D. APPEARANCE : OPAQUE LIQUID EVAPORATION RATE: Is faster than Butyl SOLUBILITY IN H20 : NEGLIGIBLE Acetate FREEZE POINT : N.D. SPECIFIC GRAVITY: 0.6706 VAPOR PRESSURE : N.D. pH @ 0.0 % 1 N.A. PHYSICAL STATE 1 LIOUID VISCOSITY : N.D.

COEFFICIENT OF WATER/OIL DISTRIBUTION: N.D.

(See Section 16 for abbreviation legend)

Product: FCR1000

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: REACTS WITH ALUMINUM ABOVE 49 DEG C. HEAT, SPARKS, WELDING ARCS, OPEN FLAME, STATIC ELECTRICITY, OR OTHER SOURCE OF IGNITION.

INCOMPATIBILITY: ALUMINUM, ACIOS. STRONG INORGANIC ACIOS, NITRIC ACID. CAUSTICS. AMINES, ALKANOLAMINES. ALDEHYDES, AMMONIA, CHLORINATED COMPOUNDS, SULFURIC ACID, HALOGENS, STRONG OXIDIZERS, HALOGEN COMPOUNDS.

HAZARDOUS DECOMPOSITION PRODUCTS: TELOMER OF TETRAFLUOROETHYLENE DECOMPOSES BY REACTION WITH HEAT AND OPEN FLAMES. (DECOMPOSITION TEMPERATURE IS 617-752 DEGREES F) HAZARDOUS GASES/VAPORS CAN BE RELEASED, INCLUDING CARBON DIOXIDE, AND CARBON MONOXIDE. METHANOL CARBON MONOXIDE AND CARBON DIOXIDE. FORMALDEHYDE,

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions...

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product or component toxicological information is available.

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SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS.

DISPOSAL METHOD: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Aerosols

DOT TECHNICAL NAME:

DOT HAZARD CLASS: 2.1

HAZARD SUBCLASS: NONE

OOT UN/NA NUMBER: UN1950

PACKING GROUP: NONE

RESP. GUIDE PAGE: 126

ADDITIONAL INFORMATION:: FOR DOMESTIC GROUND AND AIR SHIPMENT THIS PRODUCT MAY BE SHIPPED AS A CONSUMER COMMODITY ORM-D. OUTER CARTONS MUST HAVE THE ORM-D OR ORM-D AIR DESIGNATION. (OUR ORIGINAL CARTONS ARE PREPRINTED WITH THE ORM-D DESIGNATION FOR GROUND SHIPHENT)

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA - SARA HAZARD CATEGORY:

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

IMMEDIATE HEALTH HAZARD FIRE HAZARD PRESSURIZED GAS HAZARD

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

----- CHEMICAL NAME -----ISOPROPYL ALCOHOL

CAS NUMBER WT/WT % IS LESS THAN 67-63-0 10.0 %

TOXIC SUBSTANCES CONTROL ACT:

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Product: FCR1000 Preparation Date: 08/18/97

SECTION 15 - REGULATORY INFORMATION

TOXIC SUBSTANCES CONTROL ACT: This product contains the following chemical substances subject to the reporting requirements of TSCA 12(8) if exported from the United States:

----- CHEMICAL NAME -----CAS NUMBER No information is available.

INTERNATIONAL REGULATIONS: AS FOLLOWS - .

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

: ON JUNE 30, 1993 THE OSHA Z-1-A TABLE WAS REVOKED AND OSHA REVERTED BACK TO THEIR PRIOR EXPOSURE LIMITS. THE VALUES ON THIS MSDS REFLECT THE ROLL BACK TO THE PRIOR VALUES. SOME STATES MAY CONTINUE TO ENFORCE THE 1993 LIMITS.

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2 FLANHABILITY: 4 REACTIVITY: 2

PREVIOUS MSDS REVISION DATE: 07/21/95

REASON FOR REVISION: NEW FORMAT

VOC CONTENT: 95.9 % BY WEIGHT, 642 GRAMS/LITER TOTAL PRODUCT. 654 GRAMS/LITER LESS WATER AND EXEMPT. 0.79 LBS/CAN

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

The information contained on this MSDS is been checked and should be accurate. However, it is the responsibility of the user to comply with all Federal, State, and Local laws and regulations. The environmental information and hazardous materials identification system have been included by Camie-Campbell Inc. in order to provide additional health and hazard classification information. The ratings recommend are based upon the criteria supplied by the developers of these rating systems, together with Camie-Campbell Inc.'s interpretation of the available data. Proper personal protective equipment varies widely with conditions of use and anticipated exposure. We recommend that a supervisor or other qualified person determine proper PPE for intended use.

(END OF MSDS)