

215 S.E. 6th Ave.
MILLSBORO, DE 19723

KEM, INC.

19402 SUSANA RD.

RANCHO DOMINGUEZ, CA 90221

EMERGENCY TEL. NO. 213-632-7124

MATERIAL SAFETY DATA SHEET
ESSENTIALLY SIMILAR TO FORM OSHA 174-----
SECTION I. IDENTIFICATION OF PRODUCT H D C STRIPPER
-----IDENTITY: H.D. LOW SUDS WAX & FINISH REMOVER
MSDS NUMBER: 213
DATE PREPARED: 4-25-90
REVISION: 2

HAZARD RATING:

4 = EXTREME 1 = SLIGHT
3 = HIGH 0 = INSIGNIFICANT
2 = MODERATE * = SEE SECTION IV

TOXICITY: 1

FIRE: 0

REACTIVITY: 0

IAL: 0
-----SECTION II. HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

HAZARDOUS COMPONENTS (SPECIFIC CHEMICAL

IDENTITY-COMMON NAME(S):

2-BUTOXYETHANOL

(ETHYLENE GLYCOL-N-BUTYL ETHER)

CAS NUMBER: 111-76-2

OSHA PEL: 50PPM

ACGIH TLV: TWA 25PPM

OTHER LIMITS RECOMMENDED:

X (OPTIONAL): 2

SODIUM HYDROXIDE (CAUSTIC SODA)

CAS NUMBER: 1310-73-2

OSHA PEL: 2MG/M3

ACGIH TLV: 2 MG/M3

OTHER LIMITS RECOMMENDED:

X (OPTIONAL): 1
-----SECTION III. PHYSICAL/CHEMICAL CHARACTERISTICS
-----BOILING POINT: 212
VAPOR PRESSURE (MM HG.): NA
VAPOR DENSITY (AIR = 1): NA
SOLUBILITY IN WATER: COMPLETE
APPEARANCE: CLEAR PALE YELLOWSPECIFIC GRAVITY (H2O=1): 0.777 PROX 1.08
MELTING POINT: NA
EVAPORATION RATE
(BUTYL ACETATE = 1): NA
PH @ 77 F: 13-14

FLASH POINT(METHOD USED): NONE TO BOILING TCC
FLAMMABLE LIMITS: NA LEL: NA UEL: NA

EXTINGUISHING MEDIA: ANY APPROPRIATE MEDIUM FOR EXTINGUISHING SURROUNDING FIRE.

SPECIAL FIRE FIGHTING PROCEDURES: USE WATER SPRAY TO COOL NEARBY CONTAINERS.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

SECTION V. HEALTH HAZARD DATA

ROUTE(S) OF ENTRY: INHALATION? X EYES? X SKIN? X INGESTION? X
(ACUTE) HEALTH HAZARDS:

EYES: CONTACT WITH EYES WILL CAUSE EYE IRRITATION.

SKIN: CONTACT WITH SKIN WILL CAUSE SKIN IRRITATION.

INGESTION: SWALLOWING WILL CAUSE IRRITATION TO THE THROAT, MOUTH, AND
DIGESTIVE TRACT ACCOMPANIED BY NAUSEA AND VOMITING.

INHALATION: PROLONGED EXPOSURE TO VAPORS IN POORLY VENTILATED AREAS MAY CAUSE
IRRITATION OF THE MUCOUS MEMBRANES OF THE RESPIRATORY TRACT.

(CHRONIC) HEALTH HAZARDS:
NONE CURRENTLY KNOWN.

SIGNS AND SYMPTOMS OF EXPOSURE:

EYES: WATERING OF EYES, STINGING SENSATION.

SKIN: REMOVAL OF OILS, DRY SKIN.

INGESTION: BURNING SENSATION

INHALATION: IRRITATION OF RESPIRATORY TRACT.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
NONE CURRENTLY KNOWN.

EMERGENCY AND FIRST AID PROCEDURES:

EYES: FLUSH EYES WITH LARGE AMOUNTS OF WATER. IF IRRITATION OCCURS OR
PERSISTS, OBTAIN MEDICAL ASSISTANCE.

SKIN: WASH OFF WITH WATER. IF IRRITATION OCCURS, OBTAIN MEDICAL ASSISTANCE TO
DETERMINE IF EVACUATION OF STOMACH IS NECESSARY. DO NOT GIVE ANYTHING BY
MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.

INHALATION: IF INHALED, REMOVE TO FRESH AIR. OBTAIN MEDICAL ATTENTION IF
RESPIRATORY IRRITATION OCCURS OF BREATHING BECOMES DIFFICULT.

SECTION VI. TOXICITY DATA

CARCINOGENICITY: NO NTP? IARC MONOGRAPHS? OSHA REGULATED?

ORAL: 2-BUTOXYETHANOL LD50 (RAT) = 1480 MG/KG; (RABBIT) = 320 MG/KG
SODIUM HYDROXIDE LD50 (RAT) = 140-340 MG/KG

DERMAL: 2-BUTOXYETHANOL LD50 (RABBIT) = 490 MG/KG

HUMAN TCLO = 195PPM/8H
CAUSTIC SODA LC50 ND

SECTION VII. REACTIVITY DATA

STABILITY:

UNSTABLE:

CONDITIONS TO AVOID:

STABLE: X

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG ACIDS. OXIDIZING MATERIALS.

HAZARDS DECOMPOSITION OR BYPRODUCTS: MAY LIBERATE CARBON MONOXIDE AND CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION - MAY OCCUR:

WILL NOT OCCUR: X

CONDITIONS TO AVOID: NONE KNOWN

SECTION VIII. PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILLS: MOP UP EXCESS MATERIAL. FLUSH WITH WATER.

FOR LARGE SPILLS: DIKE MATERIAL TO PREVENT RUN-OFF. ABSORB SPILL WITH ABSORBENT MATERIAL AND PLACE IN SUITABLE CONTAINER OR PICK UP MATERIAL WITH VACUUM TRUCK. FLUSH SPILL AREA WITH WATER TO REMOVE ANY RESIDUE.

NOTIFY LOCAL, STATE, AND FEDERAL OFFICIALS AS REQUIRED.

WASTE DISPOSAL METHOD:

MATERIAL THAT CANNOT BE USED OR CHEMICALLY REPROCESSED, SHOULD BE DISPOSED OF AT AN APPROVED FACILITY IN ACCORDANCE WITH ANY APPLICABLE REGULATIONS UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

KEEP CONTAINERS TIGHTLY CLOSED WHEN NOT IN USE. PROTECT FROM FREEZING. STORE IN A COOL, DRY PLACE.

OTHER PRECAUTIONS:

FOR INDUSTRIAL AND INSTITUTIONAL USE ONLY. KEEP OUT OF REACH OF CHILDREN.

SECTION IX. CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE):

NIOSH-APPROVED CANNISTER RESPIRATOR IN THE ABSENCE OF ADEQUATE ENVIRONMENTAL CONTROLS AT THE POINT OF USE.

VENTILATION: NA

LOCAL EXHAUST:

MECHANICAL (GENERAL):

SPECIAL:

IR:

PROTECTIVE GLOVES: PLASTIC OR RUBBER.

EYE PROTECTION: WHEN REQUIRED FOR SPLASHING, ETC.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: EYE WASH RECOMMENDED.

CAPABLE OF MAINTING EMISSIONS AT THE POINT OF USE BELOW THE PEL THE
RECOMMENDATIONS DESCRIBED IN THIS SECTION ARE PROVIDED AS GENERAL GUIDANCE FOR
MINIMIZING EXPOSURE WHEN HANDLING THIS PRODUCT. BECAUSE USE CONDITIONS WILL
VARY DEPENDING UPON CUSTOMER APPLICATIONS, SPECIFIC SAFE HANDLING PROCEDURES
SHOULD BE DEVELOPED BY A PERSON KNOWLEDGEABLE OF THE INTENDED USE, CONDITIONS,
AND EQUIPMENT.

SECTION X. DOT HAZARDOUS INFORMATION

JN/NA: NA
CLASSIFICATION: NOT REGULATED
PROPER SHIPPING NAME: COMPOUND, CLEANING, LIQUID
PHOTO CHEMICALLY REACTIVE? __NA__X
NON-PHOTO CHEMICALLY REACTIVE? NA____
 <4% ____ >4% ____
DOT REPORTABLE QUANTITY (RQ): NA

SECTION XI. MISCELLANEOUS INFORMATION

VOC = 38.3 G/L
VOC (LESS WATER, LESS EXEMPT SOLVENTS) = 314 G/L

SARA TITLE III SECTION 313 ANNUAL REPORT REQUIRED FOR: NA
SARA TITLE III SECTION 304 AND CERCLA RQ = NA
SARA TITLE III SECTION 302 TPQ = NA

PROP 65: ND

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NOTICE

ALL INFORMATION, RECOMMENDATIONS, AND SUGGESTIONS APPEARING HEREIN
CONCERNING THIS PRODUCT ARE BASED UPON DATA OBTAINED FROM THE
MANUFACTURER AND/OR RECOGNIZED TECHNICAL SOURCES; HOWEVER, FLO-KEM,
INC. MAKES NO WARRANTY, REPRESENTATION OR GUARANTY AS TO THE ACCURACY,
SUFFICIENCY OR COMPLETENESS OF THE MATERIAL SET FORTH HEREIN. IT IS THE
USER'S RESPONSIBILITY TO DETERMINE THE SAFETY, TOXICITY AND SUITABILITY
OF HIS OWN USE, HANDLING AND DISPOSAL OF THE PRODUCT. ADDITIONAL
PRODUCT LITERATURE MAY BE AVAILABLE UPON REQUEST. SINCE ACTUAL USE BY
OTHERS IS BEYOND OUR CONTROL, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE
BY FLO-KEM, INC. AS TO THE EFFECTS OF SUCH USE, THE RESULTS TO BE
OBTAINED OR THE SAFETY AND TOXICITY OF THE PRODUCT, NOR DOES FLO-KEM,
INC. ASSUME ANY LIABILITY ARISING OUT OF USE BY OTHERS OF THE PRODUCT.

NA - NOT APPLICABLE
S - MAY BE ABSORBED THROUGH INTACT SKIN
NO - NO DATA AVAILABLE