MATERIAL SAFETY DATA SHEET: KEM 7-11

SECTION I - GENERAL INFORMATION

CHEMICAL NAME & SYNONYMS
KEM 7-11

TRADE NAME & SYNONYMS
KEM 7-11

CHEMICAL FAMILY
FORMULAS

DISINFECTANT CREAM CLEANER
X-MIXTURE

MANUFACTURER'S NAME
M. DICKSON/CHEMIST

COMPANY NAME
KEM MFG. DIV. OF SYSTEMS GENERAL

P.O. BOX 152170
IRVING, TX 75015

PREPARED BY:
K438

PRODUCT CODE NUMBER: K438

EMERGENCY TELEPHONE NUMBER
214-438-1981

SECTION II - HAZARDOUS INGREDIENTS

THE HAZARDS PRESENTED BELOW ARE THOSE OF THE INDIVIDUAL COMPONENTS.

<table>
<thead>
<tr>
<th>CHEMICAL NAME (INGREDIENTS)</th>
<th>HAZARD</th>
<th>TLV</th>
<th>PEL</th>
<th>CAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMMONIUM HYDROXIDE</td>
<td>-corrosive 25 ppm</td>
<td>50 ppm (t)</td>
<td>7664-41-7</td>
<td></td>
</tr>
<tr>
<td>COMPLETE</td>
<td>1 kg/m³</td>
<td>1 mg/m³</td>
<td>14800-60-7</td>
<td></td>
</tr>
</tbody>
</table>

SECTION III - PHYSICAL DATA

BOILING PT. (FAHRENHEIT) [212]
SPECIFIC GRAVITY (H2O=1) [1.01]
VAPOR PRESSURE (MM HG) [N/A]
COLOR [GREEN]

SECTION IV - FIRE AND EXPLOSION HAZARD

FLASH POINT (METHOD USED) [N/A]
FLAMMABLE LIMITS [N/A]
EXPLOSIVE LIMITS [N/A]
EXTINGUISHING MEDIA [N/A]
ALCOHOL [N/A]
DRY WATER [N/A]
CHEMICAL [N/A]
SPRAY [N/A]
OTHER [N/A]

SPECIAL FIRE FIGHTING PROCEDURES
WEAK NIOSH/MSHA APPROVED RESPIRATORY EQUIPMENT WHEN FIGHTING FIRES IN CONTAINED AREAS TO PREVENT EXPOSURE TO ACID SMOKE AND HAZARDOUS DECOMPOSITION PRODUCTS. COOL FIRE-EXPOSED CONTAINERS WITH WATER SPRAY.

UNUSUAL FIRE & EXPLOSION HAZARDS
AMMONIUM HYDROXIDE FORMS AN EXPLOSIVE WITH MERCURY.

NFPA HAZARD RATINGS (1-4)
0 = HEALTH
0 = REACTIVITY
0 = SPECIAL

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

NOT ESTABLISHED FOR MIXTURE. SEE SECTION II.

EFFECTS OF OVEREXPOSURE
ACUTE - (SHORT TERM EXPOSURE)
CONTACT TO THIS ALKALINE MIXTURE MAY RESULT IN IRRITATION TO MUCOUS MEMBRANES, EYES, AND SKIN. EYE SYMPTOMS RANGE FROM LACERATION TO CORNEAL ULCERATION AND POSSIBLE BLINDNESS. IRRITATING BY INHALATION AND BY MIST TO UPPER RESPIRATORY TRACT. ACCIDENTAL INGESTION MAY CAUSE NAUSEA, DIARRHEA, AND POSSIBLE PERTUSSIVE PERFORATION OF INTESTINAL LINING.

CHRONIC - (LONG TERM EXPOSURE)
PROLONGED CONTACT MAY RESULT IN BURNS OR BLISTER FORMATION.

(continued)
(CONTINUED)

SECTION V - HEALTH HAZARD DATA

LOCALIZED VASCULAR DAMAGE SKIN OR MUCOUS MEMBRANES. EXPOSURE TO MIST MAY RESULT IN CHRONIC INFLAMMATION OF UPPER RESPIRATORY TRACT. INGESTION CAN CAUSE NAUSEA AND POSSIBLE PERFORATION OF INTESTINAL LINING. PROLONGED EYE CONTACT CAN LEAD TO ULCERATION AND POSSIBLE PERFORATION.

EMERGENCY & FIRST AID PROCEDURES

INHALATION - REMOVE PERSON FROM AREA TO FRESH AIR. TREAT SYMPTOMATICALLY. TREATMENT USE OF THIS PRODUCT DOES NOT PRESENT AN INHALATION HAZARD.

EYE CONTACT: OBJECT IS TO SEEK MEDICAL ATTENTION IMMEDIATELY. IMMEDIATELY FLUSH WITH PLenty OF WATER FOR AT LEAST 15 MINUTES. HOLDING EYELIDS APART TO ENSURE FLUSHING OF THE ENTIRE EYE SURFACE. SEEK MEDICAL ATTENTION IMMEDIATELY.

SKIN CONTACT - WASH WITH PLenty OF WATER. WASH CLOTHING BEFORE REUSE. IF ANY IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

INGESTION - IF SWALLOWED DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. SEEK MEDICAL ATTENTION IMMEDIATELY.

NOTE TO PHYSICIAN: * DUE TO LOW % OF AMMONIUM HYDROXIDE CORROSIVE EFFECTS SHOULD NOT BE EVIDENT BUT WILL ACT AS AN IRITANT, THE PRIMARY ROUTE OF ENTRY IS THE CONDITONS OF THE SKIN WILL BE EXACERBATED WHEN PROLONGED OR REPEATED EXPOSURE HAS OCCURRED.

SECTION VI - TOXICITY INFORMATION

PRODUCT CONTAINS CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:

IARC X--YES NTP <--YES OSHA <--YES ACGIH <--YES OTHER <--YES X--NO X--NO X--NO

AMMONIUM HYDROXIDE

INH-MAN TCL0: 20 ppm 2.
UNK-MAN LEL0: 120mg/KG 2.
DKL-0.000mg/KG 0.

SECTION VII - REACTIVITY DATA

STABILITY | X--STABLE | <--UNSTABLE | CONDITIONS TO AVOID

ALKALI METALS

(CONTINUED)

SECTION VII - REACTIVITY DATA

INCOMPATIBILITY (MATERIALS TO AVOID)

STRONG OXIDIZERS, HYPOCHLORITE BLEACHES

HAZARDOUS DECOMPOSITION PRODUCTS

OXIDES OF CARBON AND NITROGEN

HAZARDOUS WILL NOT OCCUR

MAP MAY OCCUR

CONDITIONS TO AVOID

POLYMERIZATION

N/A

SECTION VIII - SPILL OR LEAK PROCEDURES

STEPS TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

STOP LEAKS AND CONTAIN SPILL. USE APPROPRIATE PROTECTIVE EQUIPMENT. SMALL SPILL-FLUSH DOWN DRAIN IN ACCORDANCE WITH APPLICABLE REGULATIONS. LARGE SPILL OR REUSE OR CONTAINERIZE FOR DISPOSAL. Flush TO SEWER DRAIN WITH LARGE VOLUMES OF WATER IN ACCORDANCE WITH APPLICABLE REGULATIONS.

WASTE DISPOSAL

ABANDON METHODS. DISPOSAL METHOD IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL REGULATIONS CONCERNING MEASUREMENTS. NORMAL PROCEDURE. SKIN OFF, BLOT AND FLUSH DOWN DRAIN OR SEPARATE IN AUTOMATIC OIL/WATER SEPARATOR AND FLUSH DOWN DRAIN.

NEUTRALIZING AGENT

MIX WITH A LARGE AMOUNT OF WATER AND SLOWLY ADD A SOLUTION OF DILUTE ACID.

SECTION IX - SPECIAL PROTECTION INFORMATION

REQUIRED VENTILATION

GENERAL EXHAUST VENTILATION SUFFICIENT TO MAINTAIN WORKPLACE CONCENTRATIONS BELOW PERMITTED EXPOSURE LIMITS.

RESPIRATORY PROTECTION

TYPICAL USE DOES NOT REQUIRE RESPIRATORY PROTECTION. IN AN EMERGENCY THE FOLLOWING RESPIRATORS ARE RECOMMENDED:

10 L 50 ppm 0.5AF/SCB<br>10 L 50 ppm 0.5AF/SCB<br>10 L 50 ppm 0.5AF/SCB<br>10 L 50 ppm 0.5AF/SCB

PROTECTIVE GLOVES WEAR IMPERVIOUS GLOVES (SYNTHETIC ELASTOMERS OR SIMILAR) PROTECTIVE CLOTHING AS REQUIRED.

KEM-7-11
SECTION IX - SPECIAL PROTECTION INFORMATION

EYE PROTECTION
CHEMICAL GOGGLES SHOULD BE WORN DEPENDING UPON
SEVERITY OF EXPOSURE.

OTHER PROTECTION
SHOES OR BOOTS.

SECTION X - STORAGE AND HANDLING INFORMATION

STORAGE TEMPERATURE
120° F.< MIN. | INDOOR | HEATED | REFRIGERATED | OUTDOOR

STORE AT MODERATE TEMPERATURES.

OTHER PRECAUTIONS
KEEP OUT OF REACH OF CHILDREN.
READ ENTIRE LABEL BEFORE USING.

SECTION XI - REGULATORY INFORMATION

CHEMICAL NAME
AMMONIUM HYDROXIDE
C.A.S. NUMBER
7664-41-7
UPPER % LIMIT

THOSE INGREDIENTS LISTED ABOVE ARE SUBJECT TO THE REPORTING REQUIREMENTS OF
313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF

IF UE (USE EXEMPTION) APPEARS UNDER UPPER % LIMIT, END USERS ARE EXEMPT
FROM REPORTING BECAUSE THE PRODUCT IS USED AND LABELED FOR ROUTINE
JANITORIAL WORK, OR THE PRODUCT IS USED AND LABELED FOR FACILITY GROUNDS
MAINTENANCE (SUCH AS FERTILIZERS AND HERBICIDES), OR THE PRODUCT IS USED AND
LABELED FOR MAINTAINING MOTOR VEHICLES.

SECTION XII - TRANSPORTATION - (FOR FUTURE USE)

APPLICABLE REGULATIONS
<--- 49 CFR --- IBC --- TARIFF 6 D --- IATA --- MILITARY AIR (AFR 71-4)

SHIPPING NAME

HAZARD CLASS

ID NUMBER
REPORT QTY

SECTION XIII - REFERENCES

1. THRESHOLD LIMIT VALUE FOR CHEMICAL SUBSTANCES IN THE WORK
ENVIRONMENT, 2ND EDITION, ACCM, 1988.

2. DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, 6TH EDITION,
N. IRVING SAX.

N/A - NO APPLICABLE INFORMATION WAS FOUND.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED
ACCURATE IN LIGHT OF CURRENT FORMULATION. HOWEVER, NO WARRANTY
IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA
OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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OR DISPOSAL OF THE PRODUCT IN A MANNER NOT RECOMMENDED ON THE
PRODUCT LABEL. USERS ASSUME ALL RISKS ASSOCIATED WITH SUCH
UNRECOMMENDED USE, STORAGE, OR DISPOSAL OF THE PRODUCT.