



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

PRODUCT NAME: MULTI KLEEN
PART #: MK1GN, MK2GN, MK55GN

(NFPA RATINGS)

HEALTH: 3

FIRE: 0

REACTIVITY: 1

HMIS PROTECTIVE EQUIPMENT: X See your supervisor

PRODUCT INFORMATION (800) 262-0012	MEDICAL EMERGENCY (856) 455-4555
TRANSPORTATION EMERGENCY CHEMTREC (800) 424-9300	DISTRIBUTOR / MANUFACTURER NATIONAL REFRIGERANTS, INC. 661 KENYON AVE. ROSENHAYN, NJ

HAZARDOUS INGREDIENTS

OSHA HAZARDOUS COMPONENTS (29CFR 1910.1200)

EXPOSURE LIMITS: 8 HR. TWA

	<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
POTASSIUM HYDROXIDE	1310-58-3	NONE KNOWN	2mg/m3
SODIUM METASILICATE	6834-92-0	N/E	N/E
SODIUM XYLENE SULFONATE	1300-72-7	N/A	N/A
TALL OIL FATTY ACID	61790-12-3	N/E	N/E
SURFACTANT	68439-46-3	N/E	N/E

HAZARDS IDENTIFICATIONS

EMERGENCY OVERVIEW:

DANGER! CORROSIVE, HARMFUL OR FATAL IF SWALLOWED, IRRITANT TO EYES AND SKIN.

POTENTIAL HEALTH EFFECTS:

INHALATION: INHALATION OF VAPORS OR MIST MAYBE CORROSIVE/IRRITANT TO RESPIRATORY TRACT.

EYE CONTACT: MAY CAUSE BURNS, REDNESS, TEARING AND/OR BLURRED VISION.

SKIN CONTACT: MAY CAUSE BURNS, DEFATTING AND/OR DERMATITIS.

INGESTION: HARMFUL OF FATAL IF SWALLOWED.

CHRONIC EFFECTS: NONE KNOWN.

CARCINOGENITY: LISTED IN NTP? NO IARC ? NO OSHA REGULATED? NO



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FIRST AID MEASURES

INHALATION: Remove to fresh air. Administer artificial respiration, if necessary. Seek medical advice.
EYE CONTACT: Immediately flush eyes with water for 15 minutes. Seek medical advice.
SKIN CONTACT: Wash affected areas with soap and water. Remove and launder contaminated clothing before reuse.
INGESTION: DO NOT INDUCE VOMITING. Give 3-4 glasses of water if conscious. Aspiration into lungs may cause chemical pneumonia. Seek immediate medical attention. If spontaneous vomiting occurs, keep head below hips.

FIRE FIGHTING MEASURES

FLASH POINT (F): NA
FLAMMABILITY LIMIT: LOWER N/A UPPER N/A
FLAMMABILITY CLASSIFICATION: CLASS 111B LIQUID
EXTINGUISHING MEDIA: NFPA CLASS B EXTINGUISHERS (CARBON DIOXIDE OR FOAM) FOR CLASS 111B LIQUID FIRES. WATER MAY NOT BE EFFECTIVE TO EXTINGUISH FIRE.
SPECIAL FIRE FIGHTING PROCEDURES: USE NIOSH APPROVED POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS. WATER MAY BE USED TO COOL CLOSED CONTAINERS AND TO PROTECT FIRE FIGHTERS.
UNUSUAL EXPLOSION AND FIRE PROCEDURES: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM OXIDIZERS, ACIDS, HEAT AND OPEN FLAME. CLOSED CONTAINERS MAY EXPLODE IF EXPOSED TO EXTREME HEAT. APPLYING TO HOT SURFACES REQUIRES SPECIAL PRECAUTIONS.

ACCIDENTAL RELEASE MEASURES

ISOLATE HAZARD AREA. KEEP UNNECESSARY AND UNPROTECTED PERSONNEL AWAY.

LAND SPILL:

DIKE AND CONTAIN SPILL. NEUTRALIZE WITH WEAK ACID. PUMP LIQUID TO AN APPROPRIATE CONTAINER FOR DISPOSAL. PUT CONTAMINATED SOIL IN APPROPRIATE CONTAINER FOR DISPOSAL. LABEL CONTAINERS IMMEDIATELY. CLEAN UP REMAINDER WITH ABSORBENT MATERIALS. WET DOWN WITH PLENTY OF WATER & REMOVE IMMEDIATELY.

WATER SPILL: PRODUCT IS SOLUBLE IN WATER. CONTAIN AS BEST AS POSSIBLE. CONTACT AUTHORITIES IF BODIES OF WATER WILL BE CONTAMINATED.

HANDLING AND STORAGE

HANDLING: ISOLATE FROM OXIDIZERS, ACIDS, HEAT AND OPEN FLAME. USE ONLY WITH ADEQUATE VENTILATION. DO NOT GET IN EYES, ON SKIN AND/OR CLOTHING. WEAR OSHA STANDARD FULL FACE SHIELD. WEAR GLOVES AND APRON/PROTECTIVE SUIT THAT ARE IMPERVIOUS TO THIS MATERIAL. WASH CLOTHING BEFORE REUSE.

STORAGE: DO NOT STORE ABOVE 49DEG.C/120DEG.F. STORE LARGE AMOUNTS IN STRUCTURE MADE FOR OSHA CLASS 111B LIQUIDS. KEEP CONTAINER TIGHTLY CLOSED AND UPRIGHT WHEN NOT IN USE TO PREVENT LEAKAGE. WHEN EMPTY, DRAIN COMPLETELY AND REPLACE BUNGS SECURELY.



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EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: ADEQUATE VENTILATION TO CONTROL VAPOR ACCUMULATION. LOCAL OR MECHANICAL VENTILATION.

PERSONAL PROTECTION: IF EXPOSURE LIMITS EXCEEDED OR MIST ARE PRESENT, USE A NIOSH APPROVED RESPIRATOR FOR DUSTS, FUMES AND MISTS HAVING A TIME-WEIGHTED AVERAGE NOT LESS THAN 0.05 mg/m³. WEAR OSHA STANDARD FULL FACE SHIELD. WEAR GLOVES AND APRON/PROTECTIVE SUIT THAT ARE IMPERVIOUS TO THIS MATERIAL. WASH CLOTHING BEFORE REUSE.

PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE (mm of Hg) @20DEG.C: 12.4

VAPOR DENSITY (AIR=1): 0.4

SPECIFIC GRAVITY: 1.12

SOLUBILITY IN WATER: COMPLETE

pH: >12.5

VOC's: 0.0

APPEARANCE AND ODOR: LIQUID, WATER WHITE WITH NO APPARENT ODOR.

STABILITY AND REACTIVITY

STABILITY: STABLE

CONDITIONS TO AVOID: ISOLATE FROM OXIDIZERS, ACIDS, HEAT AND OPEN FLAME.

MATERIALS TO AVOID: ISOLATE FROM STRONG OXIDIZERS SUCH AS PERMANGANATES, CHROMATE'S & PEROXIDES.

HAZARDOUS DECOMPOSITION PRODUCTS: SODIUM OXIDE AND HYDROXIDE, SILICONE DIOXIDE, POTASSIUM OXIDE AND HYDROXIDE FROM BURNING.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

TOXICOLOGICAL INFORMATION

POTASSIUM HYDROXIDE:

LD50: 1.2g/kg (oral-rat)

SODIUM METASILICATE:

NO DATA AVAILABLE

SODIUM XYLENE SULFONATE:

NO DATA AVAILABLE

TALL OIL FATTY ACID:

NO DATA AVAILABLE

SURFACTANT:

LD50: 1.4 ml/kg (oral-rat)

LD50: >5g/kg (dermal-rabbit)

ECOLOGICAL INFORMATION

NO DATA AVAILABLE

DISPOSAL CONSIDERATIONS

CLASSIFICATION OF WASTE REQUIRED BEFORE DISPOSAL. AS SOLD, PRODUCT MEETS THE CORROSIVE CLASSIFICATION IN RCRA 40CFR261, DOO2. NEUTRALIZED PRODUCT, WHICH HAS NOT BEEN CONTAMINATED, HAS THE POTENTIAL TO BE DISCHARGED TO THE SEWER, CHECK YOUR LOCAL CODES TO ENSURE COMPLIANCE. RECYCLE OR DISPOSE OF OBSERVING LOCAL, STATE AND FEDERAL HEALTH, SAFETY & POLLUTION LAWS. IF QUESTIONS EXIST, CONTACT THE APPROPRIATE AGENCIES.



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TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: CONSUMER COMMODITY ORM-D
HAZARD CLASS: NA
IDENTIFICATION NUMBER: NA
DOT EMERGENCY GUIDE #: 154

Note: The above information is for one gallon containers only. See below when shipping larger containers.

PROPER SHIPPING NAME: CORROSIVE LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE)
HAZARD CLASS: 8
IDENTIFICATION NUMBER: UN1760

INTERNATIONAL: UN1760, Corrosive liquids, n.o.s. (potassium hydroxide), 8, PGIII, LTD QTY

REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT): COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY 8(b). NO COMPONENTS OF THIS PRODUCT ARE LISTED ON TSCA INVENTORY 12(b).

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT): REPORTABLE QUANTITY IS 1000 LBS. FOR POTASSIUM HYDROXIDE.

SARA TITLE III (SUPERFUND AMENDMENTS REAUTHORIZATION ACT): NOT LISTED.

CALIFORNIA PROPOSITION 65: THIS PRODUCT CONTAINS NO CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER OR REPRODUCTIVE TOXICITY.

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DATE OF LATEST REVISION/REVIEW: 10/09
PERSON RESPONSIBLE FOR MSDS: Ray Madariaga