



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

PRODUCT NAME: KLEEN COIL
PART #: KN1GN, KN2GN, KN55GN

(NFPA RATINGS)
HEALTH: 1
FIRE: 0
REACTIVITY: 0
HMIS PROTECTIVE EQUIPMENT: X See your supervisor

PRODUCT INFORMATION

(800) 262-0012

TRANSPORTATION EMERGENCY

CHEMTREC (800) 424-9300

MEDICAL EMERGENCY

(856) 455-4555

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>
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	25 PPM (SKIN)	25 PPM (SKIN)
DODECYLBENZENE SULFONIC ACID	27176-87-0	NE	NE

HAZARDS IDENTIFICATIONS

EMERGENCY OVERVIEW: WARNING! EYE AND SKIN IRRITANT. HARMFUL IF INHALED OR SWALLOWED.

POTENTIAL HEALTH EFFECTS:

INHALATION: INHALATION OF VAPORS IN HIGH CONCENTRATION MAY CAUSE HEADACHE, NAUSEA, VOMITING.

EYE CONTACT: IRRITATION DEVELOPS IMMEDIATELY ON CONTACT.

SKIN CONTACT: IRRITATION DEVELOPS ON CONTACT.

INGESTION: TOXIC. HARMFUL IF SWALLOWED. MAY CAUSE HEADACHE, NAUSEA, VOMITING.

CHRONIC EFFECTS: NOT ESTABLISHED.

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

FIRST AID MEASURES

INHALATION:	Remove victim to fresh air and if needed, immediately begin artificial respiration. Give oxygen if breathing is labored. Get emergency medical help. Contact a physician immediately.
EYE CONTACT:	Flush eyes with water for 15 minutes. Get medical attention if symptoms develop and persist.
SKIN CONTACT:	Flush with water or soap and water for 15 minutes or until all traces have been removed. Seek medical attention if symptoms develop and persist.
INGESTION:	DO NOT INDUCE VOMITING. Rinse mouth out with water. Get immediate medical attention.



MATERIAL SAFETY DATA SHEET

FIRE FIGHTING MEASURES

FLASH POINT (F): NONE FLAMMABLE - AQUEOUS SOLUTION.

FLAMMABILITY LIMIT: LOWER N/A UPPER N/A

AUTOIGNITION TEMPERATURE: NE

GENERAL HAZARD:

FIRE FIGHTING INSTRUCTIONS: APPROACH FIRE FROM UPWIND SIDE. AVOID BREATHING SMOKE, FUMES, MIST, OR VAPORS ON THE DOWNWIND SIDE. FIREFIGHTERS WEAR PROTECTIVE CLOTHING AND SELF-CONTAINED BREATHING APPARATUS.

EXTINGUISHING MEDIA: DRY POWDER, CARBON DIOXIDE (CO₂), WATER FOG OR SPRAY.

HAZARDOUS COMBUSTION PRODUCTS: ACRID SMOKE, IRRITATING AND TOXIC FUMES OF SO_x H₂S, PO_x.

ACCIDENTAL RELEASE MEASURES

LAND SPILL:

SMALL SPILLS: FLUSH TO SEWER WITH LARGE AMOUNTS OF WATER, AT LEAST 10 PARTS WATER TO 1 PART PRODUCT.

LARGE SPILLS: PICK UP WITH ABSORBENT MEDIA, PLACE IN NON-LEAKING CONTAINERS FOR PROPER DISPOSAL OR REUSE.

WATER SPILL: NOTIFY PROPER AUTHORITIES.

CLEAN UP LEAKS/SPILLS IMMEDIATELY TO PREVENT SOIL OR WATER CONTAMINATION.

HANDLING AND STORAGE

HANDLING: AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. AFTER HANDLING THIS PRODUCT, WASH HANDS BEFORE EATING, DRINKING OR SMOKING. IF CONTACT OCCURS, REMOVE CONTAMINATED CLOTHING. IF NEEDED, TAKE FIRST AID ACTION SHOWN ABOVE. LAUNDER CONTAMINATED CLOTHING BEFORE REUSE.

STORAGE: STORE AWAY FROM FOOD STUFFS.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: LOCAL EXHAUST VENTILATION.

PERSONAL PROTECTION: RESPIRATORY PROTECTION NOT NORMALLY NEEDED UNDER NORMAL CONDITIONS OF USE. USE RUBBER OR LATEX GLOVES, CHEMICAL GOGGLES OR FULL FACE SHIELD. USE BOOTS, APRONS DRENCH SHOWERS, EYE WASH AS NEEDED FOR PROTECTION AGAINST SPILLS AND/OR SPLASHES.

PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE: ND

SPECIFIC GRAVITY (H₂₀=1): 1.02

SOLUBILITY IN WATER: COMPLETE

Ph 11-12

BOILING POINT: 212 DEG. F

APPEARANCE AND ODOR: GREEN LIQUID.

VAPOR DENSITY (AIR=1): ND

EVAPORATION RATE (BuAc=1): <1

VOC (G/L):

FREEZING POINT: ND



MATERIAL SAFETY DATA SHEET

STABILITY AND REACTIVITY

STABILITY: STABLE

CONDITIONS TO AVOID: HIGH TEMPERATURES

MATERIALS TO AVOID: OXIDIZERS.

HAZARDOUS DECOMPOSITION PRODUCTS: SO_x, H₂S, PO_x AND FROM COMBUSTION-SMOKE AND TOXIC FUMES.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

TOXICOLOGICAL INFORMATION

ETHYLENE GLYCOL MONOBUTYL ETHER	TDLo: 600 mg/kg (oral-wmn)
	TCLo: 195 ppm/8hr (inh-human) GIT
	TCLo: 100 ppm (inh-human) NOSE, EYE, CNS
	LD50: 470 mg/kg (oral-rat)
	LC50: 2900 mg/m ³ (inh-rat)
DODECYL BENZENE SULFONIC ACID	LD50: 50-500 mg/kg (oral-mouse)

ECOLOGICAL INFORMATION

HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS.

ETHYLENE GLYCOL MONOBUTYL ETHER 1000 ppm / 24 hr / brine shrimp / TLm

DODECYL BENZENE SULFONIC ACID 5-15 ppm / guppy / lethal conc.

DISPOSAL CONSIDERATIONS

DISPOSE AS A HAZARDOUS WASTE. PROPER CLASSIFICATION AND DOCUMENTATION IS REQUIRED BEFORE DISPOSAL. FOLLOW ALL FEDERAL, STATE AND LOCAL REGULATIONS.

TRANSPORTATION INFORMATION

DOMESTIC--OTHER THAN AIR (DOT)

PROPER SHIPPING NAME: NON-REGULATED MATERIAL

REGULATORY INFORMATION

TSCA (TOXIC SUBSTANCE CONTROL ACT): COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT): THE REPORTABLE QUANTITY IS 1000 LBS. (DODECYL BENZENE SULFONIC ACID). CONTACT LOCAL AUTHORITIES FOR OTHER REPORTING REQUIREMENTS.

SARA TITLE III (SUPERFUND AMENDMENTS REAUTHORIZATION ACT): NOT LISTED
CALIFORNIA PROPOSITION 65: NOT LISTED.



MATERIAL SAFETY DATA SHEET

National Refrigerants, Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other methods of use of the product and of the information referred to herein are beyond the control of National Refrigerants. National Refrigerants expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

DATE OF LATEST REVISION/REVIEW:
PERSON RESPONSIBLE FOR MSDS:

12/2012
Matt Callahan