



MATERIAL SAFETY DATA SHEET

PRODUCT: NRI ALKYL BENZENE 300

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PRODUCT CODE: 300 AKB

CHEMICAL NAME/FAMILY: SYNTHETIC LUBRICANT / REFRIGERANT OIL

MANUFACTURER / DISTRIBUTOR: NATIONAL REFRIGERANTS, INC.

ADDRESS: 11401 ROOSEVELT BOULEVARD PHILA., PA. 19154

INFORMATION: 800-262-0012

EMERGENCY: 800-424-9300

DATE: 10/09

PREPARER: Ray Madariaga

HAZARDOUS INGREDIENTS

THIS PRODUCT IS CONSIDERED AS NON-HAZARDOUS (SEE REGULATORY INFORMATION SECTION)

PHYSICAL/CHEMICAL CHARACTERISTICS

VAPOR PRESSURE: LT 0.001

VAPOR DENSITY: (AIR=1) NOT DETERMINED

VISCOSITY: 49.1-58.4 cSt AT 40 DEG. C

ODOR: ODORLESS

SOLUBILITY IN WATER: NEGLIGIBLE

PH: NOT APPLICABLE

MELTING/FREEZING POINT: NOT DETERMINED

AVERAGE MOLECULAR WT.: 365 (TYPICAL)

BOILING POINT: 319°C

APPEARANCE: CLEAR TO YELLOW LIQUID

SPECIFIC GRAVITY: (H₂O=1) 0.87

OTHER: NONE

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: (COC) >175° C

FLAMMABLE LIMITS: Not Determined

AUTO IGNITION TEMPERATURE: >421° C

RECOMMENDED FIRE EXTINGUISHING AGENTS AND SPECIAL PROCEDURES: Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS: Wear full protective clothing and positive pressure breathing apparatus.

UNUSUAL OR EXPLOSIVE HAZARDS: None

REACTIVITY DATA

STABILITY: Stable (thermal, light)

INCOMPATIBILITY: May react with strong oxidizing materials.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.



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HEALTH HAZARD DATA

EMERGENCY OVERVIEW:

APPEARANCE: Clear yellow liquid

ODOR: Odorless

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTE OF EXPOSURE: Skin

EFFECTS OF OVEREXPOSURE:

EYES: Expected to cause no more than minor eye irritation. Application of a similar product into the eyes of rabbits produced very slight membrane irritation without corneal injury. Avoid eye contact as good industrial practice.

SKIN: Not a primary skin irritant but may cause skin irritation on repeated or prolonged contact. Application of a similar product onto the skin of rabbits produced slight erythmia and edema.

INGESTION: May cause nausea. Not expected to be acutely toxic by ingestion.

INHALATION: Avoid breathing vapor or mist. Under normal use conditions, this product is not an inhalation hazard. Prolonged exposure to vapors may cause dizziness and headaches.

There is no evidence that this product aggravates an existing medical condition.

OTHER REMARKS: None

EMERGENCY AND FIRST AID PROCEDURES:

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding the eyelids open. If irritation persists, see a physician.

SKIN CONTACT: Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing. See a doctor if irritation persists.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Remove material from eyes, skin and clothing.

INGESTION: If swallowed, call a physician immediately. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If medical advice cannot be obtained, take the person, product container and MSDS to the nearest medical emergency center.

SPILL OR LEAK PROCEDURE

PROCEDURES IN CASE OF ACIDENTAL RELEASE, BREAKAGE OR LEAKAGE: Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN:

HANDLING: Minimum feasible handling temperatures should be maintained.

STORAGE: Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.



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DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

PROTECTION INFORMATION/CONTROL MEASURES

PROTECTIVE EQUIPMENT (TYPE)

EYE/FACE PROTECTION:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

SKIN PROTECTION: Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required. Exposed workers should washes exposed skin several times daily with soap and water.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective the normal laundering. Inform individuals responsible for cleaning of the potential hazards associated with handling contaminated clothing.

RESPIRATORY PROTECTION: Airborne concentrations should be kept to lowest levels possible. If vapor, dust or mist is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air-supplied respirator after determining the airborne concentration of the contaminant.

Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

VENTILATION: Local exhaust ventilation recommended if generating vapor, dust, or mist. If exhaust ventilation is not available or inadequate, use MSHA or MIOSH approved respirator as appropriate.

EXPOSURE LIMIT FOR THE TOTAL PRODUCT: None established for product.

TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

ORAL: LD50 believed to be >5 g/kg (rat) proctically non-toxic

INHALATION: Not determined; not expected to be an inhalation hazard.

DERMAL: LD50 believed to be >10 g/kg (rabbit) practically non-toxic.

IRRITATION INDEX, ESTIMATION OF IRRITATION (SPECIES)

SKIN: (Draize) believed to be between 3-5 (rabbit) moderately irritating (maximum 8)

EYES: (Draize) believed to be <15 (rabbit) no appreciable effect (maximum 110)

SENSITIZATION: Not determined

OTHER: This product, or a component of this product, has been shown to damage red blood cells or blood forming organs, and has caused anemia in laboratory animals.



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TRANSPORT INFORMATION

DOT: Not regulated according to DOT.
IMDG: Not regulated according to IMDG.
ICAO/IATA: Not regulated according to ICAO/IATA.
TDG: Not regulated according to TDG.

REGULATORY INFORMATION

FEDERAL REGULATIONS:

This product and/or its components are considered non-hazardous by the following standards:

OSHA Hazard Communication Classification
SARA Title III Section 311 Hazardous Categorization

No chemicals subject to reporting per the following standards:

SARA Title III Section 302/304 Extremely Hazardous Substances.
SARA Title III Section 313 Toxic Chemical.
CERCLA 102(a)/DOT Hazardous Substances.
California Prop. 65
States Right-To-Know Regulations.

CT, FL, IL, MI, LA, MA, NJ, PA, RI

INTERNATIONAL REGULATION:

TSCA INVENTORY STATUS: This product, or its components, are listed on, or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

CANADIAN INVENTORY STATUS: This product, or its its components, are listed on, or are exempt from the Canadian Domestic Substance List (DSL).

EINECS INVENTORY STATUS: This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

AUSTRALIAN INVENTORY STATUS: Not Determined.

JAPAN INVENTORY STATUS: Not Determined.

ENVIRONMENTAL INFORMATION

96 hr. LC50 Rainbow Trout (*Salmo gairdneri*) >1000mg/L practically non-toxic.

96 hr. LC50 Sheepshead Minnow (*Cyprinodon variegatus*) >1000mg/L practically non-toxic.

Biodegradability: Estimated to be less than 40% degradation over a test period of more than 28 days.

Potential to Bioaccumulation: This product is estimated to have a very slow rate of bioaccumulation.

DISCLAIMER

INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE AT THE TIME OF PREPARATION. NO WARRANTY IS MADE CONCERNING THE ACCURACY AND NO LIABILITY SHALL BE MADE FOR CLAIMS FOR USE OR RELIANCE OF THE RECOMMENDATIONS CONTAINED HEREIN.