

**SAFETY DATA SHEET**      **200AKB OIL****1. CHEMICAL PRODUCT AND COMPANY INFORMATION****PRODUCT:** NRI ALKYL BENZENE 200**PRODUCT CODE:** 200 AKB**CHEMICAL NAME/FAMILY:** SYNTHETIC LUBRICANT**OTHER NAME:** REFRIGERANT OIL**MANUFACTURER / DISTRIBUTOR:** NATIONAL REFRIGERANTS, INC.**ADDRESS:** 11401 ROOSEVELT BOULEVARD PHILA., PA. 19154**INFORMATION:** 800-262-0012**EMERGENCY:** 800-424-9300**DATE:** 11/2012**PREPARER:** Matt Callahan**2. HAZARD IDENTIFICATION****CLASSIFICATION:** Not classified according to 29 CFR 1910.1200 (2012)**OTHER HAZARDS:** SKIN AND EYE CONTACT: Prolonged contact may cause minor skin irritation.**3. COMPOSITION/ INFORMATION ON INGREDIENTS**

<u>INGREDIENT</u>	<u>CAS#</u>	<u>WEIGHT</u>
Synthetic Lubricant	None	100%
*no hazardous ingredients		

**COMMON NAMES AND SYNONYMS**

Synthetic Refrigerant Oil

There are no stabilizers or impurities that contribute to the classification of the material identified in section 2

**4. FIRST AID MEASURES****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.



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**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.

## **5. FIRE FIGHTING MEASURES**

**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

## **6. ACCIDENTAL RELEASE MEASURES**

**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.

## **7. HANDLING & STORAGE**

**HANDLING:** Minimum feasible handling temperatures should be maintained. Avoid exposure to heat and flames. Protect against eye and skin contact.

**STORAGE:** Periods of exposure to high temperatures should be minimized. Water contamination should be avoided. Store containers in an upright and secure position to prevent spills and protect against damage.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:** 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.

### **PROTECTIVE EQUIPMENT (TYPE)**

**EYE/FACE PROTECTION:** Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.



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**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 wash 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 c 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.

**EXPOSURE GUIDELINES:** None established for product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Clear to yellow liquid
<b>ODOR:</b>	Odorless
<b>ODOR THRESHOLD:</b>	Not determined
<b>PH:</b>	Not applicable
<b>MELTING POINT/FREEZING POINT:</b>	Not determined
<b>BOILING POINT:</b>	319°C (606°F)
<b>FLASH POINT:</b>	>175°C (>347°F)
<b>EVAPORATION RATE:</b>	Not applicable
<b>FLAMMABILITY:</b>	Not applicable
<b>LEL/UEL:</b>	Not applicable
<b>VAPOR PRESSURE:</b>	LT 0.0001
<b>VAPOR DENSITY:</b>	Not determined
<b>RELATIVE DENSITY:</b>	.87 (water = 1.0)
<b>SOLUBILITY:</b>	Negligible
<b>PARTITION COEFFICIENT</b>	
<b>n-Octanol/water:</b>	Not applicable
<b>AUTO IGNITION TEMPERATURE:</b>	>421°C (>790°F)
<b>DECOMPOSITION TEMPERATURE:</b>	Not determined
<b>VISCOSITY:</b>	37-41 cSt at 40 deg C

## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable (thermal, light)



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**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.

## 11. TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

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

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

**DERMAL:** LD50 believed to be >5 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

### 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 erythema 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 and existing medical condition.

**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.

## 12. ECOLOGICAL 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.



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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.

## 13. DOSPOSAL 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.

## 14. TRANSPORTATION 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.

## 15. 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 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.



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JAPAN INVENTORY STATUS: Not Determined.

<b>16. OTHER INFORMATION</b>
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**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

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**Product name: SUNISO® AKB-200 Refrigeration Oil**

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## 1. PRODUCT AND COMPANY IDENTIFICATION

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<b>Product name:</b>	SUNISO® AKB-200 Refrigeration Oil
<b>Chemical name:</b>	A mixture of synthetic hydrocarbons

**Supplier:** Sonneborn, Inc.  
575 Corporate Drive, Suite 415  
Mahwah, NJ 07430 USA

**Emergency telephone number:** CHEMTREC (24 hours) 800-424-9300  
Sonneborn, Inc. Emergency Response  
(24 hours) 724-756-2210

**For MSDS, Product Safety, or regulatory inquiries, call:** 877-948-2688

**Customer Service:** 877-948-2688

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## 2. COMPOSITION / INFORMATION ON INGREDIENTS

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COMPONENT	CAS#	CONCENTRATION
Proprietary Mixture	-	100.0 %

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Note(s): This is not a dangerous substance

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## 3. HAZARDS IDENTIFICATION

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### EMERGENCY OVERVIEW

THIS PRODUCT IS A PROPRIETARY BLEND OF HYDROCARBONS. IT IS NOT EXPECTED TO PRESENT ANY UNUSUAL HAZARDS, IN PROPER USE.

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## 4. FIRST AID MEASURES

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### Swallowing

Do not induce vomiting. Treat symptomatically. Not expected to be toxic by ingestion.

### Skin

No emergency care anticipated. Wash skin with soap and water. Remove contaminated clothing. Wash clothing before re-use. Obtain medical attention if irritation persists.

### Inhalation

Obtain medical attention. Oxygen may be given by qualified personnel if breathing is difficult or cyanosis (blue discoloration of skin) is noted. Give artificial respiration if not breathing. Remove to fresh air if aerosol spray is inhaled. Aspiration may cause pulmonary edema or aspiration pneumonia. Exposed persons should be kept under

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medical observation for at least 48 hours because delayed effects may occur.

**Eye contact**

Immediately flush eyes with water and continue washing for at least 15 minutes. Obtain medical attention if irritation persists.

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**5. FIRE-FIGHTING MEASURES**

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<b>Flash point:</b> > 127 °C (370 °F)
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**NFPA CLASSIFICATION**

Health: 1	Flammability: 1	Reactivity: 0	Special provisions: -
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**Special fire fighting procedures**

Use water spray to cool fire-exposed containers and structures. If a rail or tank truck is involved in a fire, ISOLATE for 800 meters (0.5 mile) in all directions. Shut off fuel to fire if it is possible to do so without hazard. If this is impossible, withdraw from the area and let the fire burn out under controlled conditions. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

**Special protective equipment for firefighters**

Body covering protective clothing, full "turn-out" gear. Self-contained breathing apparatus with full face-piece operated in positive pressure mode.

**Extinguishing media**

Suitable: Treat as an oil fire.  
Small fires:  
- CO2  
- dry powder  
- foam  
Large fires:  
- alcohol-type foam or universal-type foams  
- water fog

Unsuitable: Oil will float on water and can spread any fire.

**Unusual fire and explosion hazards**

This product will float upon water, so water spray is not a suitable extinguishing agent as it may cause any fire to spread.

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**6. ACCIDENTAL RELEASE MEASURES**

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**Personal precautions**

Wear protective clothing when taking up spill. Eliminate sources of ignition.

**Environmental precautions**

This product is insoluble in water and will float on the surface. Prevent from entering sewers or drains. Should this product enter sewers or drains, it should be pumped out into an open vessel. Emergency



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services may need to be called to assist in this operation.

**Methods for cleaning up**

Floor may be slippery; use care to avoid falling.

Small spills      Cover remaining spilled product with dry powder, dry sand, or Vermiculite.

Large spills      Large spill: Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal.  
Stop leak, if without risk.

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**7. HANDLING AND STORAGE**

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**HANDLING****Handling precautions**

Never use pressure to empty drums. Keep drums tightly closed to prevent contamination. Residual vapors may explode on ignition; do not puncture, drill, grind, or weld near this container. Electrically bond and ground all containers and equipment before transfer or use of material.

**STORAGE****Storage requirements**

Normal precautions common to safe manufacturing practice should be followed in handling and storage. Store in a dry place. Keep out of strong sunlight. Keep away from heat and flame. Keep container tightly closed.

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**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

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**PERSONAL PROTECTION****Respiratory protection**

If vapor and/or mist is generated by heating, spraying, etc., wear an organic vapor respirator with a mist filter. No special respiratory protection is normally required.

**Hand protection / protective gloves**

Wear oil resistant gloves.

**Eye protection**

Face shield or chemical splash goggles in case of splashing.

**Skin protection**

Wear protective clothing, such as long sleeves to minimize skin contact.

**Product name: SUNISO® AKB-200 Refrigeration Oil****Industrial hygiene measures**

Remove contaminated clothing and clean it.

Do not eat or drink at work.

**ENGINEERING CONTROLS****Ventilation**

Local ventilation is needed in the presence of airborne mists.

**EXPOSURE LIMITS**

<u>Component</u>	<u>Type</u>	<u>Value</u>	<u>Remark</u>
Mineral Oil Mist	TWA (mist), ACGIH	5.0 mg/m <sup>3</sup>	If used in way that generates a "mist" observe the limits for Mineral Oil Mist.
	STEL (mist), ACGIH	10.0 mg/m <sup>3</sup>	

**9. PHYSICAL AND CHEMICAL PROPERTIES****APPEARANCE**

<b>Physical state</b>	Liquid
<b>Color</b>	Pale straw to amber
<b>Odor</b>	Mild petroleum

**OTHER PROPERTIES**

<b>Boiling point</b>	> 260 °C at STP unless specified below.		
<b>Specific gravity (H<sub>2</sub>O=1)</b>	< 1		
<b>Vapor pressure</b>	< 0.005 hPa	(0.00 mmHg)	at 20 °C
<b>Vapor density (air=1)</b>	> 10		
<b>Solubility in water</b>	Insoluble		
<b>Solubility in organic solvents</b>	Soluble		
<b>Partitioning coefficient</b>	log POW: > 6 This product is soluble in oil.		
<b>Flash point</b>	> 127 °C (370 °F) Method: Cleveland open cup ASTM D 92		
<b>Percent volatiles</b>	Nil		

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## 10. STABILITY AND REACTIVITY

**Stability:** Stable.

### Incompatible materials

Normally unreactive; however avoid contact with:

Strong oxidizing agents.

Sunlight or ultraviolet light.

Heat or high temperature.

### Hazardous combustion products

Burning can produce the following combustion products:

Oxides of carbon.

Soot

**Hazardous polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### GENERAL

No evidence of harmful effects from available information.

### SWALLOWING

#### Acute effects

Ingestion is unlikely to have any toxic effects but the product may act as an intestinal lubricant and result in diarrhea and frequent loose stools.

If vomiting occurs, aspiration may cause delayed pulmonary edema and chemical pneumonia.

### SKIN ABSORPTION

#### Acute effects

Harmful effects are not expected from short periods of contact.

#### Effects of repeated overexposure

Prolonged or repeated contact may lead to skin irritation by dermatitis or oil acne.

### INHALATION

#### Acute effects

Harmful effects are not expected from static vapor at ambient temperature.

Inhalation of mist or spray may be harmful.

#### Chronic effects

Aspiration may cause pulmonary edema or aspiration pneumonia.

Oil deposits in the lung may lead to fibrosis and reduced pulmonary function.

Prolonged or repeated inhalation of excessive amounts of oil mist or vapors may cause irritation of the respiratory tract.

### SKIN CONTACT

#### Acute effects

No evidence of harmful effects from available information.

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**EYE CONTACT**

**Acute effects**

No evidence of harmful effects from available information.

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**12. ECOLOGICAL INFORMATION**

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Not expected to be acutely toxic to aquatic organisms. This product is stable in water, and can be mechanically separated from water. The water may be suitable for disposal in a biological waste water treatment plant.

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**13. DISPOSAL CONSIDERATIONS**

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**General:** Incineration is probably the best means of disposal. Dispose of in accordance with appropriate Federal, State, and local regulations.

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**14. TRANSPORT INFORMATION**

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**DOT Classification**

This product is not regulated by DOT.

**Freight description road:** 65 PETROLEUM OIL, N.O.I.B.N

**IMDG Classification**

This product is not regulated by IMDG.

**ICAO Classification**

This product is not regulated by ICAO.

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**15. REGULATORY INFORMATION**

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**Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual reports of release of toxic chemicals that appear in 40CFR372 (for SARA 313). This information must be included in MSDS's that are copied and distributed for this material.**

Components present in this product at a level which could require reporting under the statute are:

\*\*\*\* NONE \*\*\*\*

**EPA Hazard Categories (SARA 311, 312):** None

**CHEMICAL INVENTORY**

United States: The ingredients of this product are on the TSCA inventory.

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## 16. OTHER INFORMATION

### RECOMMENDED USES AND RESTRICTIONS

REFRIGERANT OIL CLASSIFIED BY UNDERWRITERS LABORATORIES INC. AS TO COMPATIBILITY WITH CLASSIFIED REFRIGERANTS SPECIFIED ON THE SHIPPING CONTAINER AND MOTOR ELECTRICAL INSULATING MATERIALS USED IN RECOGNIZED HERMETIC REFRIGERANT MOTOR-COMPRESSORS 7R38.

### FURTHER INFORMATION

MAY BE ON THE INVENTORY LIST BUT NOT NECESSARILY REGISTERED, (Korea, China, New Zealand) CONSULT REGULATORY SPECIALIST.

### HMIS RATING

Health: 1	Flammability: 1	Reactivity: 0	PPI: -
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### LEGEND

STP	Standard temperature and pressure
W/W	Weight/Weight
0 (HMIS)	Minimal hazard
1 (HMIS)	Slight hazard
2 (HMIS)	Moderate hazard
3 (HMIS)	Serious hazard
4 (HMIS)	Severe hazard
X (HMIS)	Personal protection rating to be supplied by user depending on use conditions

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