

SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT: NATIONAL POLYOLESTER LUBRICANT PE68PRODUCT CODE: PE68CHEMICAL NAME/FAMILY: SYNTHETIC ESTER LUBRICATING FLUIDOTHER NAMES: Refrigerant OilMANUFACTURER: NATIONAL REFRIGERANTS, INC.ADDRESS: 11401 Roosevelt Boulevard Phila., Pa. 19154INFORMATION: 800-262-0012EMERGENCY: 800-424-9300DATE: 01/2024PREPARER: 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

| MATERIAL Pentaerythritol ester of heptanoic and isopentanoic acids | CAS NO. 68441-94-1 | APPROX% Proprietary | TLV 5mg ³ (as a mist) |
|---|------------------------------|------------------------|-------------------------------------|
| Mixed pentaerythritol esters of isononionic and heptanoic acids | 118685-29-3 | Proprietary | 5mg ³ |
| Antiwear/antioxidant additive | N/A | | N/A |

4. FIRST AID MEASURES

SKIN CONTACT: In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

EYE CONTACT: If splashed into eyes, flush with clear water for 15-minutes or until irritation subsides. If irritation persists, call a physician.

INHALATION: Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start



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resuscitation; administer oxygen if available. If overexposure is due to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION: If ingested, do not induce vomiting. Call a physician immediately.

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSITION HAZARDS: N/A

EXTINGUISHING MEDIA: Foam, CO2, Dry Chemical

SPECIAL FIREFIGHTING INSTRUCTIONS: Use water spray to cool surface of container. Use Self Contained Breathing Apparatus (SCBA), avoid breathing fumes, vapors, or mists. Water may cause frothing.

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 AND 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. Keep container tightly sealed when not in use Store containers in an upright and secure position to prevent spills and protect against damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONTROL MEASURES

Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places. Keep containers closed when not in use. Do not handle near heat, sparks, flame, or strong oxidants.

PERSONAL PROTECTIVE EQUIPMENT

Butyl gloves should be worn to avoid prolonged or repeated exposure. Chemical splash goggles should be worn as needed to prevent eye contact. Under normal use, no respiratory protection is required when using this chemical.



PERSONAL HYGIENE

Minimize breathing vapor, mist, or fumes. Avoid prolonged contact with skin. Remove contaminated clothing, and launder or dry-clean before reuse. Cleanse skin thoroughly after contact, especially before eating, with waterless hand cleaner followed by soap and water.

EXPOSURE GUIDELINES: ACGIH TLV = 5mg/m3 (as a mist)

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: ODOR: ODOR THRESHOLD: PH: **MELTING POINT/FREEZING POINT: BOILING POINT:** FLASH POINT: COC TEST METHOD **EVAPORATION RATE: FLAMMABILITY:** LEL/UEL: **VAPOR PRESSURE: VAPOR DENSITY: RELATIVE DENSITY: SOLUBILITY: PARTITION COEFFICIENT** n-Octanol/water: **AUTO IGNITION TEMPERATURE: DECOMPOSITION TEMPERATURE: VISCOSITY:**

Amber liquid Slight chemical odor Not determined Not applicable N/A N/A >270°C (518°F) Not applicable Not applicable Not evaluated N/A N/A at 77 deg. F (Air = 1) $0.98 \text{ g/cc} @ 20^{\circ} \text{C} (68^{\circ} \text{F})$ Negligible Not applicable Not determined Not determined

72.3 cSt @ 40°C

10. STABILITY AND REACTIVITY

STABILITY: Material is stable. Avoid open flames and high temperatures.

DECOMPOSITION: This material may decompose if exposed to high temperatures (open flames) producing CO and CO₂.

INCOMPATABILITY: N/A

POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

PRINCIPLE HEATLH HAZARDS

SKIN CONTACT: In case of skin contact, remove contaminated clothing and wash skin thoroughly with soap and water.

EYE CONTACT: If splashed into eyes, flush with clear water for 15-minutes or until irritation subsides. If irritation persists, call a physician.

INHALATION: Vapor inhalation under ambient conditions is normally not a problem. If overcome by vapor from hot product, immediately remove from exposure and call a physician. If breathing is irregular or has stopped, start resuscitation; administer oxygen if available. If overexposure is due to oil mist, remove from further exposure until excessive oil mist condition subsides.

INGESTION: If ingested, do not induce vomiting. Call a physician immediately.

EXPOSURE LIMIT FOR TOTAL PRODUCT

 5mg/m^3 for oil mist in air

CARCINOGENICITY

Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

SAFETY PRECAUTIONS

Avoid breathing vapors and prolonged skin exposure. Use with sufficient ventilation to keep exposure below recommended limits.

SIGNS AND SYMPTOMS OF EXPOSURE

None known

12. ECOLOGICAL INFORMATION

| - EIN V | INDINIZENTAL TOXICITI - | | | |
|-----------------------------------|--|--|--|--|
| Freshwater Fish Toxicity | The acute LC50 is > 1000 mg/L based on similar materials | | | |
| Freshwater Invertebrates Toxicity | The acute EC50 is > 1000 mg/L based on similar materials | | | |
| Algal Inhibition | The acute EC50 is > 1000 mg/L based on similar materials | | | |
| Saltwater Fish Toxicity | Not determined | | | |
| Saltwater Invertebrates Toxicity | Not determined | | | |
| Bacteria Toxicity | The acute EC50 is > 1000ppm based on similar materials | | | |
| Miscellaneous Toxicity | Not determined | | | |
| -ENVIRONMENTAL FATE – | | | | |
| Biodegradation | This product will biodegrade moderately based on OECD | | | |
| - | 301-type test data for similar products | | | |
| Bioaccumulation | Less than 1.0% of the components potentially | | | |
| | bioconcentrate, based on octanol/water coefficients | | | |
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- ENVIRONMENTAL TOXICITY -

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Soil Mobility

Not determined

13. DISPOSAL CONSIDERATIONS

SPILL, LEAK OR RELEASE

Ventilate area. Do not flush into sewers. Dike spill. Collect on absorbent material and transfer to steel drums for recovery or disposal. Comply with Federal, State and local regulations on reporting releases.

WASTE DISPOSAL

Comply with Federal, State and local regulations

14. TRANSPORATION INFORMATION

*** This product is not regulated by DOT, IMO, ICAO

DOMESTIC--OTHER THAN AIR (DOT)

PROPER SHIPPING NAME: UN NUMBER: Not applicable HAZARD CLASS: Not applicable DOT LABELS: Not applicable DOT PLACARD: Not applicable

INTERNATIONAL WATER OR AIR (IMO/ICAO)

PROPER SHIPPING NAME: UN NUMBER: Not applicable HAZARD CLASS: Not applicable IMO/ICAO LABEL: Not applicable

15. REGULATORY INFORMATION

SARA TITLE III INFORMATION (40CFR300)

| EXTREMELY HAZARDOUS SUBSTANCES (40CFR355) | | | | |
|---|-----------|----------|--|--|
| MATERIAL | TPQ (LBS) | RQ (LBS) | | |
| None listed | N/A | N/A | | |

| CERCLA HAZARDOUS SUBSTANCES (40CFR302.4) | | | | |
|--|-----|----------|--|--|
| MATERIAL | WT% | RQ (LBS) | | |
| None listed | N/A | N/A | | |

PRODUCT HAZARD CATAGORIES (SARA TITLE III/SECTIONS 311 & 312)IMMEDIATENODELAYEDNOFIRENOPRESSURENOREACTIVENOCHRONICNO



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TOXIC SUBSTANCES (SARA TITLE III/SECTION 313 & 40CFR372)MATERIALCAS NO.WT %

None listed

16. OTHER INFORMATION

HMIS CODES: H F R P 1 1 0 -

DISCLAIMER:

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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