Material Safety Data Sheet
THE PENRAY COMPANIES

PENRAY NOX ICE 5112

MSDS Number: 5112
Revision Date: 5/20/03

1 PRODUCT AND COMPANY IDENTIFICATION

Manufacturer
The Penray Companies, Inc.
440 Denniston Ct.
Wheeling, IL 60090

Contact: EH&S Manager
Telephone Number: 847-459-5000
FAX Number: 847-459-5043
E-Mail:
Web

Product Name: PENRAY NOX ICE 5112
Revision Date: 5/20/03
MSDS Number: 5112
Common Name: GAS LINE ANTI-FREEZE PRODUCT CONTAINING ISOPROPANOL
EMERGENCY PHONE NUMBER (800) 752-7869

NFPA 704M RATING:

HEALTH: 1 FIRE: 4 REACTIVITY: 0 SPECIAL:
0=INSIGNIFICANT 1=SLIGHT 2=MODERATE 3=HIGH 4=EXTREME

2 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT</th>
<th>CAS NUMBER</th>
<th>PERCENT WEIGHT</th>
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<tr>
<td>ISOPROPANOL</td>
<td>67-63-0</td>
<td>&gt;99%</td>
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3 HAZARDS IDENTIFICATION

Route of Entry: Skin absorption and inhalation
Target Organs: Lungs, kidneys, liver and nervous system.
Inhalation: Respiratory irritation and dizziness
Skin Contact: Prolonged contact with skin can cause irritation. Repeated skin contact may cause persistent irritation and dermatitis
Eye Contact: Will cause severe irritation redness, tearing and blurred vision on contact
Ingestion: Product may be harmful if swallowed and may cause nausea, vomiting and diarrhea.

CARCINOGENICITY: Product is not considered a carcinogen by OSHA, NTP or IARC.
MEDICAL CONDITIONS: Pre-existing eye or skin conditions may be aggravated by over-exposure to this product.
4 FIRST AID MEASURES

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. Seek medical attention. Inhalation hazard unlikely due to low volatility of product.

Skin Contact: Wash area with soap and water. Seek medical attention if irritation persists.

Eye Contact: Immediately flush eyes with plenty of water for 15 minutes. Seek medical attention.

Ingestion: DO NOT induce vomiting. Only give CONSCIOUS victim two glasses of water and seek medical attention. NEVER give UNCONSCIOUS anything by mouth.

5 FIRE FIGHTING MEASURES

Flash Point: 53-55 degrees F
Flash Point Method: TCC

Other: EXTINGUISHING MEDIA: Carbon Dioxide (CO2), Dry Chemical, Foam. UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and can collect in low areas. FIRE FIGHTING INSTRUCTIONS: Containers can build up pressure if exposed to fire. Containers should be cooled with water supply. FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus with full face piece operated in positive pressure mode.

6 ACCIDENTAL RELEASE MEASURES

SPILL/LEAK PROCEDURES: Notify safety personnel, evacuate all unnecessary personnel and provide adequate ventilation. If feasible, and without risk, clean-up personnel should stop leak. All clean-up personnel should wear proper personal protective equipment. SMALL SPILLS: Clean with inert absorbent and place in recovery drums for disposal. LARGE SPILLS: Dike to prevent further migration of material. DO NOT release into waterways or sewers. Follow applicable federal and state regulations.

7 HANDLING AND STORAGE

Handling Precautions: Wash thoroughly after handling. Do not get into eyes, on skin or on clothing. Do not smoke while using this product. Do not use near excessive heat, sparks, or open flame.

Storage Requirements: Store in clean, dry locations away from excessive heat. Store in areas designated for the storage of flammable liquids according to NFPA 30 (Flammable and Combustible Liquids Code).

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Eye wash station and safety shower. Strong general ventilation or local exhaust.

Protective Equipment: EYE: Chemical splash goggles with indirect or no ventilation. SKIN: Chemical resistant gloves, such as nitrile. RESPIRATORY: Organic vapor air purifying respirator if vapors are a nuisance or if the concentrations are above PEL or TLV.

Never eat, drink or smoke in work area.
9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance: colorless  
Physical State: liquid  
Odor: strong alcohol odor  
Boiling Point: 180 F  
Freezing/Melting Pt.:  
Solubility: Completely soluble in water  
Spec Grav./Density: 0.789

Vapor Pressure: 33 mmHG  
Vapor Density: 2  
VOC: 100%  
Evap. Rate: 7.7

10 STABILITY AND REACTIVITY

Stability: Material is stable.  
Conditions to avoid: Excessive heat and open flame.  
Materials to avoid (Incompatability): Strong oxidizing agents.  
Hazardous Decomposition products: Carbon Monoxide and Carbon Dioxide  
Hazardous Polymerization: Cannot occur.

11 TOXICOLOGICAL INFORMATION

LD50  
ISOPROPANOL 5.8 g/km (oral)

12 ECOLOGICAL INFORMATION

No data.

13 DISPOSAL CONSIDERATIONS

As a waste, this product in its raw form DOES MEET the criteria of a hazardous waste as defined by RCRA (40CFR301). As a waste this product can be fuel blended at a fuel blending facility. Dispose of in accordance with all applicable state, federal and local regulations.
TRANSPORT INFORMATION

DOMESTIC:
5112: CONSUMER COMMODITY ORM-D
5105: ISOPROPANOL, CLASS 3, UN1219, PGII
5115: ISOPROPANOL, CLASS 3, UN1219, PGII

EXPORT:
5112: ISOPROPANOL, CLASS 3, UN1219, PGII, FP53F, LIMITED QUANTITY
5105: ISOPROPANOL, CLASS 3, UN1219, PGII, FP53F
5115: ISOPROPANOL, CLASS 3, UN1219, PGII, FP53F

REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS
OSHA: Considered to be a hazardous material as defined by 29CFR1910.1200

EPA SARA TITLE III
Section 311-312 (40CFR370): If stored in excess of the threshold quantities, this
product should be reported as a(n):
IMMEDIATE (acute) HEALTH HAZARD
DELAYED (chronic) HEALTH HAZARD
FIRE HAZARD
Section 313 (40CFR372) This product does not contains ingredients which are subject to the
reporting requirements of SARA 313:

OTHER INFORMATION

CALIFORNIA PROPOSITION 65: This product does not contain ingredients which are on the current
Proposition 65 list.

Notes:
NG= NOT GIVEN
BT= BETWEEN
<= LESS THAN
>= GREATER THAN

USERS RESPONSIBILITY: This MSDS provides environmental, health and safety information. This product is to be used in applications consistent
with our product literature and container label. Individuals handling this product should be informed to the recommended safety precautions and
have access to this MSDS. Please contact your local sales representative or our EH&S Department for further information.

END OF MSDS

END OF MSDS DOCUMENT