



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

PRODUCT NAME: NICKEL SAFE ICE MACHINE CLEANER
PART #: NS16OZ; NS1G

(NFPA RATINGS)

HEALTH: 2
FIRE: 0
REACTIVITY: 0

HMIS PROTECTIVE EQUIPMENT: X See your supervisor

PRODUCT INFORMATION (800) 262-0012	MEDICAL EMERGENCY (856) 455-4555
TRANSPORTATION EMERGENCY CHEMTREC (800) 424-9300	DISTRIBUTOR / MANUFACTURER NATIONAL REFRIGERANTS, INC. 661 KENYON AVE. ROSENHAYN, NJ

HAZARDOUS INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200)

EXPOSURE LIMITS: 8 HR. TWA

OSHA PEL

ACGIH TLV

Phosphoric acid (CAS# 7664-38-2)

STEL

1 mg/m³

3 mg/m³

STEL

1 mg/m³

3 mg/m³

Hydroxyacetic acid (CAS# 79-14-1)

NE

NE

HAZARDS IDENTIFICATIONS

EMERGENCY OVERVIEW: DANGER! Corrosive to all body tissues. Causes destruction of eye and skin tissue. Harmful if inhaled or swallowed.

POTENTIAL HEALTH EFFECTS:

INHALATION: Corrosive to respiratory passages. May cause coughing, wheezing, laryngitis, shortness of breath, headache, nausea.

EYE CONTACT: Immediate irritation and burning followed by destruction of eye tissue.

SKIN CONTACT: Immediate irritation and burning followed by destruction of skin tissue. Moderately toxic when absorbed through skin. Aggravates pre-existing skin disorders.

INGESTION: Corrosive to gastrointestinal tract. May cause nausea, vomiting, loss of consciousness.

CHRONIC Effects: Kidney and liver damage possible.

NOTE:

CARCINOGENICITY: 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.



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FIRE FIGHTING MEASURES

FLASHPOINT (TEST METHOD): NA
FLAMMABLE LIMITS: LOWER: NA UPPER: NA
AUTOIGNITION TEMPERATURE: NA

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: Smoke, CO, CO₂, toxic fumes of PO_x

ACCIDENTAL RELEASE MEASURES

LAND SPILL: Emergency response coordinator must have mandated training. Eliminate all ignition sources. **SMALL SPILLS:** Pick up with absorbent materials and place in non-leaking containers; seal tightly for proper disposal or reuse. **LARGE SPILLS:** Evacuate the hazard area of unprotected personnel. Wear appropriate respirator and protective clothing. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels.

WATER SPILL: Notify proper authorities.

Clean up spills/leaks immediately to prevent soil or water contamination.

HANDLING AND STORAGE

HANDLING: Always add acid to water; never water to acid. 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 in section IV. Launder contaminated clothing before reuse.

STORAGE: Store away from caustic / alkalies.

EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust recommended.

PERSONAL PROTECTION: Use NIOSH approved respirator, chemical impervious 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 (Air=1): Same as H₂O

SPECIFIC GRAVITY: 1.2

SOLUBILITY IN WATER: Soluble

pH: 1 - 2

BOILING POINT: 130 C

APPEARANCE & ODOR: Colorless liquid, no odor

VAPOR DENSITY (Air=1): 1.0

EVAPORATION RATE (BuAc=1): >1

VOC (G/L): 0

FREEZING POINT:

STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID:

MATERIALS TO AVOID: Alkaline materials, caustics.

HAZARDOUS DECOMPOSITION PRODUCTS: From combustion: smoke, CO, CO₂, PO_x

HAZARDOUS POLYMERIZATION: Will not occur.



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TOXICOLOGICAL INFORMATION

Phosphoric acid	LDLo: 220 mg/kg	(unr - man)
	LD50: 1530 mg/kg	(oral - rat)
	LD50: 2740 mg/kg	(skin - rat)
Hydroxyacetic acid	LD50: 1950 mg/kg	(oral - rat)
	2 mg SEV	(eye - rabbit)

ECOLOGICAL INFORMATION

Dangerous to aquatic life in high concentrations. Phosphoric acid 138 ppm / 24 hr. / mosquito fish / TLm / fresh water

DISPOSAL CONSIDERATIONS

Dispose as hazardous waste. Classification and documentation is required before disposal. Follow all local, state and federal regulations.

TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Consumer Commodity ORM-D
HAZARD CLASS: NA
IDENTIFICATION NUMBER: NA
DOT Emergency Guide #: 154
Reportable Quantity (RQ): Not applicable
International: Corrosive liquids, n.o.s., (phosphoric acid, hydroxyacetic acid), 8, UN 1760, PG III, LTD QTY

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 gallons (phosphoric acid). Contact local authorities for other reporting requirements.
SARA TITLE III (Superfund Amendments and Reauthorization Act):
Section 313: Phosphoric Acid CAS# 7664-38-2 40 - 50%
CALIFORNIA PROPOSITION 65: Not listed.

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DATE OF LATEST REVISION/REVIEW: 10/09
PERSON RESPONSIBLE FOR MSDS: Ray Madariaga