

MATERIAL SAFETY DATA SHEET

MSDS 0231

Section 1 -- PRODUCT AND COMPANY IDENTIFICATION

		HMIS CODES	
PRODUCT NAME	Nickel-Safe Ice Machine Cleaner	Health	3
		Flammability	0
		Reactivity	0
PRODUCT CODES	88312, 88314	PPI	D
CHEMICAL FAMILY:	Inorganic Acids		
USE	Ice Machine Cleaner		
MANUFACTURER'S NAME	Greenleaf Solutions ltd	EMERGENCY TELEPHONE NO.	
	PO Box 64-125	Poisons Information Centre	
	Botany, Auckland NZ	New Zealand 0800-764-766	
DATE OF PREPARATION	December 20, 2009	Australia 13-1126	
		TECHNICAL SERVICE TELEPHONE NO.	
		(09- 272 4141	

Section 2 -- COMPOSITION/INFORMATION ON INGREDIENTS

% by WT	CAS No.	INGREDIENT	UNITS
30	7664-38-2	Phosphoric Acid	
		ACGIH TLV	1 mg/m3
		OSHA PEL	1 mg/m3
3	5949-29-1	Citric Acid	
		ACGIH TLV	N/D
		OSHA PEL	N/D

Section 3 -- HAZARDS IDENTIFICATION

SUMMARY OF ACUTE HAZARDS

Exposure to human tissue will result in irritation and subsequent chemical burns. Vapors irritating to eyes and respiratory tract.

INHALATION

Respiratory and mucous membrane irritation, coughing, difficulty breathing.

EYE CONTACT

Corrosive, causes severe irritation and eye burns.

SKIN CONTACT

Corrosive, causes irritation and skin burns.

INGESTION

Burns on mouth and lips, sour acrid taste, severe gastrointestinal irritation, nausea, vomiting, bloody diarrhea, difficult swallowing, severe abdominal pains, thirst, acidemia, difficult breathing, convulsions, collapse, shock, possible death.

SUMMARY OF CHRONIC HAZARDS

Bronchitis, pulmonary, chemical burns and chemical pneumonitis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Skin disorders, eye problems, impaired liver and kidney, or respiratory function.

Section 4 -- FIRST AID MEASURES

If INHALED: If overcome by exposure, remove victim to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

If on SKIN: Immediately flush skin with plenty of water for at least 15

VAPOR PRESSURE (mm Hg): 3.4 @ 68 F (20 C)
MELTING POINT: N/A
VAPOR DENSITY (AIR = 1): 1
EVAPORATION RATE (ETHYL ACETATE = 1): <1
APPEARANCE/ODOR: Clear Green Liquid / Irritating Odor
SOLUBILITY IN WATER: Soluble

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Section 10 -- STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID: Incompatibles
INCOMPATIBILITY (MATERIALS TO AVOID): Liberates explosive hydrogen gas when reacting with chlorides and stainless steel. Can react violently with sodium tetrahydroborate. Exothermic reactions with aldehydes, amines, amides, alcohols and glycols, azo-compounds, carbamates, esters, caustics, phenols and cresols, ketones, organophosphates, epoxides, explosives, combustible materials, unsaturated halides, and organic peroxides. Phosphoric acid forms flammable gases with sulfides, mercaptans, cyanides and aldehydes. It also forms toxic fumes with cyanides, sulfide, fluorides, organic peroxides, and halogenated organics. Mixtures with nitromethane are explosive.
HAZARDOUS DECOMPOSITION PRODUCTS: Phosphorus oxides may form when heated to decomposition.
HAZARDOUS POLYMERIZATION: Will not occur.

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Section 11 -- TOXICOLOGY INFORMATION

CHRONIC HEALTH HAZARDS
No ingredient in this product is an IARC, NTP or OSHA listed carcinogen.

TOXICOLOGY DATA
Ingredient Name

Phosphoric Acid
Oral-Rat LD50:1530 mg/kg
Inhalation-Rat LC50:N/D
Citric Acid
Oral-Rat LD50:N/D
Inhalation-Rat LC50:N/D

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Section 12 -- Ecological Information

ECOLOGICAL DATA
Ingredient Name

Phosphoric Acid
Food Chain Concentration Potential None
WATERFOWL TOXICITY N/A
BOD None
AQUATIC TOXICITY 138 ppm/24 hr/mosquito fish/TLm
Citric Acid
Food Chain Concentration Potential None
WATERFOWL TOXICITY N/A
BOD 40%
AQUATIC TOXICITY 894 ppm/4 hr/goldfish/killed/fresh

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Section 13 -- DISPOSAL CONSIDERATIONS

Waste Classification: Corrosive(D002)
Disposal Method: Neutralization
RCRA classified hazardous waste. Dispose of absorbed materials and liquid waste in accordance with all local, state and federal regulations.

Section 14 -- TRANSPORTATION INFORMATION

DOT: Corrosive Liquid, n.o.s., (Phosphoric & Citric Acid), Class 8, UN 1760,
PG II, ERG#154
OCEAN (IMDG): Corrosive Liquid, n.o.s., (Phosphoric & Citric Acid), Class 8,
UN 1760, PG II, IMDG#8147, EMS#8-15
AIR (IATA): Corrosive Liquid, n.o.s., (Phosphoric & Citric Acid), Class 8,
UN 1760, PG II, ERG#154
WHMIS (CANADA): Class E
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Section 15 -- REGULATORY INFORMATION

REGULATORY DATA
Ingredient Name

Phosphoric Acid	SARA 313	Yes
	TSCA Inventory	Yes
	CERCLA RQ	5,000 lb.
	RCRA Code	N/A
Citric Acid	SARA 313	No
	TSCA Inventory	Yes
	CERCLA RQ	N/A
	RCRA Code	N/A

Section 16 -- OTHER INFORMATION

The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information given in this data sheet does not constitute or replace the users own assessment of workplace risk as required by other health and safety legislation.