

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME (as labeled):



MANUFACTURER'S NAME:

POWER-SONIC CORPORATION

ADDRESS (complete mailing address):

3106 SPRING STREET, P.O. BOX 5242
REDWOOD CITY, CA 94063

Phone number for additional information:

(650) 364-5001

Date prepared or revised:

January 2, 1991

Name of preparer*:

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent*	Exposure Limits in Air (give units)		
			ACGIH TLV	OSHA PEL	Other (specify)
(A) Cadmium & Cadmium Hydroxide		13-16%		0.05 mg/m ³	
(B) Nickel & Nickel Hydroxide		20-30%		1.00 mg/m ³	
(C) Potassium Hydroxide or Sodium Hydroxide		2-4%		2.00 mg/m ³	
(D) Cobalt Hydroxide		0.5-1.0%		0.10 mg/m ³	

III. PHYSICAL PROPERTIES

Vapor density (air=1):

NA

Melting point or range, °F:

NA

Specific gravity:

NA

Boiling point or range, °F:

NA

Solubility in water:

NA

Evaporation rate (butyl acetate=1):

NA

Vapor pressure, mmHg at 20°C:

NA

Appearance and odor:

Each battery cell is a sealed cylindrical container enclosing a cadmium electrode, nickel electrode and KOH or NaOH electrolyte.

HOW TO DETECT THIS SUBSTANCE*: (warning properties of substance as a gas, vapor, dust, or mist):

NA

* Not a required category.

NOTE: All required categories should be addressed. If any item is not applicable, or no information is available, the space must be marked to indicate that.

This voluntary form is provided by Cal/OSHA to assist MSDS preparers and users. Any format may be used as long as it contains all the required information.

IV. FIRE AND EXPLOSION

Flash-Point, °F (give method): NA
Auto ignition temperature, °F : NA
Flammable limits in air, volume %: NA lower (LEL) _____ upper (UEL) _____
Fire extinguishing materials:
_____ water spray _____ carbon dioxide _____ other:
_____ foam _____ dry chemical
Special firefighting procedures: If incinerated use HIOSH/MSHA approved positive pressure self-contained breathing apparatus.
Unusual fire and explosion hazards: Toxic Cadmium Oxide fumes may be released during burning.

V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: CD - possible lung or kidney damage; Ni - possible lung damage.
Contact with skin or eyes: KOH, NaOH burns to tissue contact dermatitis.
Absorbed through skin: Wash with large volume of water; mild acid may be used to neutralize.
Swallowed: Stomach irritation.

HEALTH EFFECTS OR RISKS FROM EXPOSURE. Explain in lay terms. Attach extra page if more space is needed.

Acute: KOH, NaOH burns to tissue contacted; Ni - possible contact dermatitis.
Chronic: CD - possible lung or kidney damage; Ni - possible lung damage.

FIRST AID: EMERGENCY PROCEDURES

Eye Contact: Flush with water for 15 minutes; contact physician.
Skin Contact: Wash with large volume of water; mild acid may be used to neutralize.
Inhaled: Remove to fresh air; contact physician.
Swallowed: Contact physician immediately.

SUSPECTED CANCER AGENT?

NO: This product's ingredients are not found in the lists below.

YES: _____ Federal OSHA _____ NTP _____ IARC

California employers using Cal/OSHA - regulated carcinogens must register with CAL/OSHA. The Cal/Osha and Federal OSHA carcinogen lists are similar.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Unknown

VI. REACTIVITY DATA

Stability: XX Stable Unstable

Conditions to avoid: NA

Incompatibility (materials to avoid): NA

Hazardous decomposition products: Toxic fumes may be released if incinerated.
(including combustion products)

Hazardous polymerization: May Occur XX Will not occur

Conditions to avoid: NA

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill response procedures (include employee protection measures):

Flush electrolyte spills with water. Do not break open battery cell.

Preparing wastes for disposal (container types, neutralization, etc.):

Dispose of in accordance with applicable local, state and federal regulations.
Do not incinerate or mutilate; Do not short-circuit -- may cause burns.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: Protect against cracking of case material.
Adhere to proper charging procedure.

Respiratory protection (type): HIOSH/MSHA approves self-contained breathing
apparatus (if burned).

Eye protection (type): Chemical goggles if cell is broken open.

Gloves (specify material): Neoprene or PVC if cell is broken open.

Other clothing and equipment: NA

Work practices, hygienic practices: NA

Other handling/storage requirements: NA

Protective measures during maintenance of contaminated equipment: Do not break open
battery cell.