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COSHH & POWER-SONIC BATTERIES

Ref: Environmental Hygiene Series EH1 Guidance note concerning Cadmium Health and Safety Precautions.

Power-Sonic wishes to emphasise that, properly used, batteries provide little chance of contact with substances deemed hazardous to health. However, the spirit of COSHH regulation encourages all employers to consider the potential risks where products are placed in circumstances of accident, mishap, and abuse. This information is provided to customers as a guide considering safety instructions for their own employees.

POWER-SONIC SEALED NICKEL CADMIUM BATTERIES

1. COMPONENT SUBSTANCES

Under Normal Operation Conditions, no contact occurs between the user and the component substances enclosed within the battery. Avoid overcharging. DO NOT INCINERATE, PUNCTURE, CRUSH, MUTILATE OR BREAK IN ANY WAY.

The components which may be released if the cells are damaged or abused are:

a) **Cadmium and Cadmium Hydroxide.**

Cadmium is a listed substance. We refer you to guidance notes EH1 of the occupational exposure limits indicated by the Health and Safety Executive. The risk to the employee is directly related to both the amount of cadmium ingested or inhaled and the period of time during which the employee is exposed to the substance.

b) **Nickel Hydroxide**

Nickel is a moderate skin sensitizer and in some instances can cause rashes.

c) **Potassium Hydroxide**

This is a highly corrosive substance. Every effort should be taken to avoid contact between liquid or particles and skin or eyes.

3. ELECTRICAL HAZARD

Although not, strictly speaking, a "substance" and therefore not covered by COSHH, the electrical potential stored within the batteries represents a hazard if mishandled. Ordinary precautions regarding electrical safety apply.

4. **PHYSICAL DAMAGE TO THE BATTERY AND/OR ABUSE/MISUSE.**

- a) Physical Damage resulting in cracks or puncture to the cell chambers may result in discharge of the component substances detailed above. Care should be taken to avoid direct contact between skin, eyes, mouth or clothing and any solid or liquid matter discharged from a damaged battery. Wash any area in contact with discharged matter with a mild solution of vinegar. If any substance comes into contact with eyes, flush immediately with water and seek medical attention. Dispose of any particulate matter promptly. If necessary to retain the battery for insurance or other inspection, cushion well with absorbent paper and wrap in a sealable plastic bag. (see section 5 - Disposal). **DO NOT ATTEMPT TO RETURN FOR REPAIR. ALL CLAIMS FOR DAMAGE IN TRANSIT MUST BE ADDRESSED TO TRANSPORTATION CARRIER, AND ARE SUBJECT TO TIME LIMITATIONS.**
- b) Abuse and Misuse of the battery, including but not limited to short circuiting, overcharging, overheating, reversing polarity, can result in fire and/or explosion of the battery. refer to product data sheets, available from Power-Sonic, for correct charging voltages. **ABUSE/MISUSE OF THE BATTERY VOIDS ALL WARRANTIES.**
- c) Fire Warning. In the event of fire on the premises where nickel cadmium batteries are stored, highly toxic fumes will be released if the cells explode or burn. Employees should be warned to vacate the area immediately and to warn attending fire personnel that cadmium oxide substances may be released.

5. **DISPOSAL**

- a) Electrically neutralize each battery by deep discharge to avoid risk of electrical shock or fire.
- b) Cells and batteries of cells contain toxic compounds. Therefore when disposing of any quantities it will be necessary to comply with the Deposits of Poison Waste Act 1972 and Control of Pollution Act 1974. cadmium compounds can be reclaimed by firms specializing in the breaking of nickel cadmium batteries; it may be to your advantage to consult one of these firms. **DO NOT INCINERATE, PUNCTURE, CRUSH, MUTILATE OR BREAK IN ANY WAY.**
- c) If you have difficulty with the disposal of POWER-SONIC Nickel Cadmium cells or batteries please contact us.