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1 Chemical Product and Company Identification

Product name: 4R25 Carbon-Zinc Battery

Supplier: Imported and distributed by:

Panasonic Energy Europe N.V.

Brusselsesteenweg 502

1731 Asse-Zellik / Belgium

2. Composition/Information on Ingredients

Chemical/Size	4R25	CAS Registry No
Weight	~590g	
Mercury	< 1ppm	
Cadmium	< 5ppm	
Lead	0.08%	
Zinc	18.55%	00744-66-6
Carbon	10.60%	007782-42-5
Manganese Dioxide	28%	001313-13-9
Paper&Sealing Agent	6.43%	
Plastic	8.96%	
Tin Plated Steel	1.22%	
Zinc Chloride	23%	

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Ammonium Chloride	3.16%	
Copper.		
	100%	

The components in this section may only represent a hazard, if the batteries are damaged.

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3. Hazards Identification:

Warning: When recharge batteries or discard in the fire or use used battery with new one, or connected improperly may cause battery vent, leak or explode.

Damaged batteries may cause skin and eye burn, may cause respiratory tract irritation.

4. First-aid Measure

General speaking it is not expected to result in situation that requires first-aid measure, except the damaged batteries may cause they release the contents.

<u>Inhalation</u>: If vapours or fumes from vented or leaked batteries are irritation, move to fresh air and get medical attention.

<u>Eyes</u>: Check for and remove any contact lens, flush eyes with plenty of water, holding eyelids open, for at least 20 minutes, get medical help.

<u>Skin:</u> Immediately move the metal fragments and chemical components flush skin with plenty of water at least 15 minutes, get medical, if necessary,

<u>Ingestion:</u> Get immediately medical attention, do not induce vomiting or give a liquid to unconscious person.

5. Fire Fighting Measure:

Extinguishing media: Use appropriate agent for adjacent fire.

Flash point: Not available

Auto-ignition temperature: Not available

Flammable limits: Not available

<u>Products of combustion:</u> Zinc oxide, manganese oxide. 6. Accidental Release Measure: Not available 7. Handling and Storage: Precaution: Handling and transfer the products with care, make sure the packing always in good condition. Damaged packing may cause batteries contact together, in this case batteries may short circuit or improperly connected, it cause batteries venting, leaking or exploding. ______ Storage: Store in a dry, cool and well-ventilated area. 8. Exposure control / Personal protection Exposure control: If necessary, set local exhaust ventilation. Personal protection: Gloves, safety glass, dust respirator. 9. Physical and Chemical Properties Physical State and Appearance: Solid Melting Point: 419°C <u>Vapour pressure:</u> Not available. PH (1% soln/water): Not available. Solubility: Insoluble. <u>Volatility:</u> Not available. Specific gravity: (water=1) not applicable Odour: Odourless. Taste: Not available. 10. Stability and Reactivity Stability: The products are stable Instability temperature: Not available. Incompatibility: Reactive with acids and alkalis.

PSDS(4R25)

Corrosivity: None.

Hazardous Polymerization: Will not occur.

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11. Toxicological information

<u>Note</u>: Since the materials in this battery are sealed in the can, the potential for exposure to the components of the battery is negligible, when the battery is used as directed. However technical or electrical abuse of the battery may result in the release of battery contents.

Toxicity to Animals: Not applicable

Chronic Effects on Human: Not applicable.

12. Ecological information

This product has not been tested for environmental effects.

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13. Disposal consideration

<u>Waste disposal</u>: Consult your local or regional authorities, disposal maybe subject to national, state, or local laws.

14. Transport Info

These are "Batteries dry" and are not considered to be a "hazardous material"per U.S. DOT (department of transportation regulations) or a "dangerous goods" per IATA (International Air Transport Association Regulations)

15. Regulatory information

ACGH: American Conference of Government Industrial Hygiene.

IARC: International Agency for Research Cancer.

NPT: US National Toxicology Program.

NIOSH: National Institute of Occupational Safety and Health

ACGIH, documentation on TLVS and BELS 1992-1993

ACGIH, threshold limit values, current listing

16. Other information

Warning wordings: "Keep out reach of children"

"Do not recharge or discard in fire or use used battery with new one, make sure polarity"

Notice to reader

Although reasonable precaution have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration, and investigation, HI-WATT Extends no warranty of any kind.