

CECOM Material Safety Data Sheet
THR: Thermal (THR) battery, para. 4-13

1. PRODUCT AND MANUFACTURER:

Item Identification: Hazardous Characteristic Code: J8
 National Stock Number: (for Agency use ONLY)
 Type Number: Weight of Item(pounds):
 Common Name: Thermal battery Item Dimensions (inches):
 Contract Number:

Manufacturer's Identification:

Manufacturer's Name and Address
 and ZIP code :
 Preparer's Federal Supply Code (CAGE): 81349
 Preparer: USA Communications-Electronics Command
 Directorate of Safety Risk Management
 ATTN: AMSEL-SF-SEP
 Ft. Monmouth, New Jersey 07703-5024
 Emergency & Information telephone numbers: CML: 732-427-3112, DSN: 987-3112
 800-793-4093

2. COMPOSITION OF ITEM:

| Hazardous & Nonhazardous Components (Chemical Name, (Symbol), and [CAS#]) | Exposure Limits* | | Other Recommended Limits | % by Item Weight |
|---|------------------|-----------|--------------------------------|------------------------|
| | OSHA PEL | ACGIH | | |
| Calcium (Ca)[7440-70-2], and Calcium chromate (CaCrO4)[13765-19-0] | | 0.001 | | up to 10 |
| Potassium perchlorate (KClO ₄)[7778-74-7] | | --- | | up to 10 |
| Asbestos [1332-21-4] | | 0.2 fb/cc | | <1 |

* All values reported in mg/m³ unless otherwise specified.

3. PHYSICAL AND CHEMICAL PROPERTIES: N/A for item

Boiling Point: Melting Point:
 Vapor Pressure(mmHg): Vapor Density(Air=1):
 Evaporation Rate (butyl acetate=1):
 Solubility in Water: Specific Gravity(water=1):
 pH:
 Odor and Appearance:

4. STABILITY AND REACTIVITY:

Chemical Stability: Stable: X Unstable:

Conditions to avoid: DO NOT attempt to recharge this battery. Do Not abuse, mutilate or short circuit the battery.

Incompatibility: Store in separate stacks from hazardous materials.

Hazardous Decomposition Products:

WARNING

When activated, THR battery temperatures can exceed 500°F.

When exposed to extreme heat/fire, the internal pyrothechnic material may ignite.

Hazardous Polymerization: May Occur: Will not Occur: X

Conditions to avoid:

5. HEALTH HAZARD IDENTIFICATION:

Emergency Overview (including **Signs** and **Symptoms, Route(s) of Entry**, etc.)

Intact batteries present no specific hazards.

Acute Health Hazards (e.g., Inhalation, Eye Contact, Skin Contact, Ingestion, etc.):

Chronic Health Effects (e.g., Carcinogenicity, Teratology, Reproduction, Mutagenicity, etc.):

Asbestos and calcium chromate: Human carcinogenic agent.

Medical Conditions Generally Aggravated by Exposure: None.

6. FIRST AID MEASURES:

Inhalation:

Skin Contact:

7. FIRE FIGHTING and EXPLOSION HAZARD DATA:

Flammable Properties: N/A

Flashpoint: Method:

Autoignition Temperature:

Flammable Limits: N/A

Lower flammable limit: Upper flammable limit:

Hazardous Combustion Products: Burning batteries may emit toxic fumes of potassium chlorides and potassium oxides.

Extinguishing Media: Carbon dioxide (CO₂) or dry chemical fire extinguisher, 10-B:C.

Fire Fighting Instructions:

Personnel: Fight the fire in a defensive mode, while exiting the area. When using a CO₂ fire extinguisher, DO NOT re-enter the area until it has been thoroughly ventilated (i.e., purged) of the CO₂ extinguishing agent.

Firefighters: Use a self-contained breathing apparatus (SCBA).

8. ACCIDENTAL RELEASE MEASURES:

Small Spill:

9. HANDLING AND STORAGE:

Handling: DO NOT:

- Attempt to recharge this battery.
- Abuse, mutilate or short circuit the battery.

Storage: Gain approval for storage areas from the Installation Fire Department. Store batteries in a cool (i.e., <130°F), dry and well ventilated area.

DO NOT:

- Store batteries in direct sunlight or under hot conditions.
- Smoke and keep batteries away from open flame or heat.
- Store batteries in the same stacks with hazardous materials.
- Store batteries in office areas, or other areas where personnel congregate.

Work/Hygienic Practices: NO eating, drinking or smoking in battery storage areas.

10. EXPOSURE CONTROL/PERSONAL PROTECTION EQUIPMENT:

Engineering Controls:

General Exhaust: Local Exhaust:

Special: If the battery is burning, leave the area immediately.

Protective Equipment :

Respiratory Protection: During fire fighting firemen should use SCBA.

11. DISPOSAL CONSIDERATIONS/ECOLOGICAL INFORMATION:

Waste Disposal Method:

WARNING

When activated, THR battery temperatures can exceed 500°F

1. Thermal batteries should be discharge (i.e., deactivated) IAW Appendix F of TB 43-0134 prior to disposal.
2. Thermal batteries are hazardous waste (HW) (i.e., D007) under Resource Conservation and Recovery Act (RCRA) regulations. No bioassay data available. All batteries will be managed IAW equipment TM requirements, and disposal will be IAW requirements under the Universal Waste Rule (USEPA), state and local regulations.
3. Coordinate battery disposition and disposal with the Installation Environmental Office and the servicing Defense Reutilization and Marketing Office.

12. TRANSPORTATION INFORMATION: Thermal batteries are not regulated under the federal hazardous materials provisions of 49 Code of Federal Regulations (CFR) part 172.101.

Procedures: Securely package batteries to withstand conditions normal to shipping. Protect batteries against short circuiting.

Special Precautions: Isolate and remove damaged and/or leaking batteries, if possible. Notify local health, safety and environmental agencies.