Material Safety Data Sheet

Trade Name:
HeaterMeals Heater Pad

Section I – MANUFACTURER'S INFORMATION

Manufacturer's Name: Luxfer Magtech Inc.
Address:2940 Highland Ave., Unit 210, Cincinnati, OH 45212
Telephone Number: (800) 503-4483
Emergency Contact: CHEMTREC (800) 424-9300
Date Prepared: April 2013

Section II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Ingredients (all are non-toxic materials)	**Weight**
Magnesium - Iron alloy (as magnesium metal)	13 grams per Pad
Silica, Wetting agent, Calcium Oxide	

Section III – PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point (F)	N/A	Specific gravity	N/A
Vapor Pressure	N/A	Melting Point (F)	1202(Mg)
Vapor Density	N/A	Evaporation Rate	N/A
Solubility in Water	N/A	Percent Volatile by Weight	N/A

Appearance and Odor: The heater is a flat, grayish, metallic powder packaged within a porous non-woven plastic pouch. The pouch is sealed within a high density (HDPE) bag.

Section IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point: N/A Flammability Limits: N/A LEL: N/A UEL: N/A

Extinguishing Media:
Use class-D agents at any stage of the fire or other extinguishing agents specifically intended for Magnesium fires.

If detected before Mg starts to burn:
Use extinguishing agents intended for Type A, B, or C fires.
If Mg is burning (extremely intense fire with white sparks):
(1) Flood the fire with large amounts of water with a fog nozzle (not a solid stream) or foam.
(2) Move burning material outdoors if possible, allow to burn completely or spread material out to extinguish. Individual pads are self-extinguishing.

Special Fire Fighting Procedures:
Fire Fighters should use self Contained Breathing Apparatus due to hazardous off gassing from burning polyethylene.

Unusual Fire and Explosion Hazards:
If cases of heaters are ignited, fiberboard and plastic will burn initially as a class A fire. Bulk packs will sustain initial fire due to the fiberboard and plastic packing. Bulk packs will transition from initial class A fire to flammable solid fire (class D) if fire not brought under control in initial stages.

Section V - HEALTH HAZARD DATA

Acute Effects: (Requires exposure to pad due to damaged or no packaging)
Causes eye irritation.
Causes skin irritation with prolonged contact.

Emergency First Aid Procedures:
In case of contact:
Eyes - Flush eyes with water for 15 minutes.
Broken skin - Wash skin with soap and water.

Carcinogenicity: Unknown

Signs and Symptoms of Exposure: Irritation of the eyes, nose or throat. Dermatitis of the skin.

Medical Conditions Generally Aggravated by Exposure: Small cuts, abrasions

Other:
Manufacturer certifies that all pad ingredients are non-toxic, and by-products of reacted pads are non-toxic and harmless. See Section VII for list of byproducts.

Individual heaters are packaged with labels warning that "Heater and its By-Products are not intended for human consumption".

Section VI - REACTIVITY DATA

Stability: Salt Water Activated

Incompatibilities: (Specifically Magnesium contained within pad)
Acids, Acid Chlorides, Strong Oxidizing agents

Reacts Violently With: Halogens, Chlorinated Solvents, Ammonium Nitrate, Carbonates, Arsenic, Cupric Oxide, Cupric Sulfate, Mercuric Oxide, Inorganic Phosphates

Hazardous Decomposition or By-products: All non-toxic. Saturation of one pad by salt water slowly produces hydrogen gas (Max 13 liters).

Hazardous Polymerization: Will not occur

Section VII – SPILL OR LEAK PROCEDURES

Steps to be taken in Case Material is Released or Spilled:

Collect spilled pads and inspect polyethylene bags
-If bag is punctured, torn, or interior material is wetted, discard as waste as described below.
-If bag is undamaged, repackage.

Waste Disposal Method

Used pads (i.e.pads reacted with salt water) , or unused pads are approved for disposal.

In all circumstances, pads must be disposed of in accordance with all applicable municipal, state and federal waste disposal regulations.

Heater Pad byproducts (reacted with salt water):

Magnesium Hydroxide (Milk of Magnesia - common Antacid, FDA listed food additive)
Elemental Iron (food enrichment grade - FDA listed food additive)
Silicon Dioxide (FDA listed food additive)
Wetting agent (Trace amounts only - alcohol derivative, has been shown to cause diarrhea and hypoactivity)
Hydrogen
Calcium Oxide

Section VIII – CONTROL MEASURES

Fire Fighters should use Self Contained Breathing Apparatus due to hazardous off-gassing from burning plastic.

Section IX - SPECIAL PRECAUTIONS

Precautions to be Taken in Handling and Storage

Warehouses where large quantities of pads are stored should provide:
- Storage in a general-purpose warehouse or dry goods storage area.
- Equipment for fighting Class-D and Class-A fires where pads are present.

Other Precautions:
This MSDS shall be made readily available to the local Fire Department of Emergency Response Crew in case of an emergency.

DISCLAIMER

The information, data, and recommendations contained herein are believed to be correct at the time of writing. All materials and mixtures may present unknown hazards and should be used with caution. When necessary or appropriate, independent opinions regarding the risk of handling or exposure should be obtained from trained professionals.