ThermaFreeze Products Corporation 140 Broad Street Red Bank, NJ 07701

MATERIAL SAFETY DATA SHEET

1 - PRODUCT IDENTIFICATION

ThermaFreeze 3-Ply Absorbent Ice Sheets made up of 2" x 2" Pockets Spaced .5" Apart with .5 grams of absorbent powder.

Shipping Information:
Class: 125 to 150 NMFC#: 56828-4 to 56828-5

EMERGENCY TELEPHONE: 24 HOURS A DAY, 7 DAYS A WEEK
Chemtrec 1-800-424-9300

2 – COMPOSITION

Polyester/Polyethylene
Acrylic Acid, Polymers, Sodium Salt
Polyethylene, Polypropylene, Polyethylene, terephthalate

3 – HAZARDS IDENTIFICATION

Eyes: Dust may cause burning, drying, itching and other discomfort resulting in reddening of the eyes.
Skin: Exposure to the dust, such as in manufacturing may aggravate existing skin conditions due to drying effect.
Inhalation: Exposure to respirable dust may cause respiratory tract and lung irritation and may aggravate existing respiratory conditions
Ingestion: Although not a likely route of entry, tests have shown that polyacrylate absorbents are non-toxic if ingested. However, as in any instance of non-food consumption, seek medical attention in the event of any adverse symptoms. Could cause suffocation
HMIS Ratings: Health 1 Fire: 0 Reactivity: 0
Hazard Scale: 0=Minimal 1=Slight 2 = Moderate 3=Serious 4=Severe *=Chronic Hazard

4 - FIRST AID MEASURES

Eyes: Immediately flush with plenty of water for at least 15 minutes and continue flushing until irritation subsides. Remove particles remaining under the eyelids. Seek medical attention if irritation persists.
Skin: Remove any powder or gel from skin using soap and water. If irritation persists seek medical attention.
Inhalation: If inhaled, move to a source of fresh air. Seek medical attention if symptoms persist.
Ingestion: Non-toxic by ingestion. However, if adverse symptoms appear, seek medical attention.

5 – FIREFIGHTING MEASURES

General Fire Hazards: No Recognized fire hazards associated with finished product.
Flash Point: > 300° C
Extinguishing Media: Dry chemical, foam, carbon dioxide and water fog

Special Firefighting Procedures: Cool with water spray, remove heat source. Wear positive pressure, self-contained breathing apparatus when fighting a fire in any closed space.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0=Minimal 1=Slight 2 = Moderate 3=Serious 4=Severe *=Chronic Hazard

6 – ACCIDENTAL RELEASE MEASURES

Containment Procedures: If open powder is spilled, sweep or vacuum material when possible and dispose in waste container.

7 – HANDELING AND STORAGE

Handling: Avoid breathing vapor, dust or fumes. If powder is exposed handle as an eye and respiratory tract irritant.
Storage: Store in a dry, clean place away from flames

8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eye Protection: None required when used as intended.
Gloves: None required when used as intended.
Respiratory: None required
Ventilation: None requited
General Product Information: This product is not regulated as a hazardous material. However, the manufacturer recognizes if the powder is exposed the potential for respiratory tract irritation and recommends and eight-hour exposure limit of 0.05mg/m³.
Engineering Controls: Normal ventilation

9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White Perforated film Sheet, white fabric and transparent polyfilm bonded together in pockets with white granular powder enclosed.
Oder: Negligible
Water Solubility: Insoluble but, swells in water
Melting Point: 350°F

10 - STABILITY AND REACTIVITY

Stability: Stable under normal ambient conditions
Conditions to Avoid: High temperature
Incompatible Materials to Avoid: Strong oxidizers
Hazardous Decomposition Products: Thermal decomposition Products: Thermal decomposition products include but, are not limited to: Carbon monoxide, carbon dioxide, acetic fumes, acrolein, aldehydes, olefinic or paraffinic hydrocarbons.

11- TOXICOLOGICAL INFORMATION

Independent Lab test have been conducted on each component of ThermaFreeze product.

Toxic Elements Analysis:

With reference to section 4.3.5 of the ASTM standard consumer safety specification on toy safety F963-07$^{\varepsilon 1}$, acid digestion and extraction methods were used and toxic elements content were determined by inductivity coupled argon plasma spectrometry.

RESULT IN PARTS PER MILLION (ppm)

TESTED CONTENTS	PRINTED FILM	WHITE FABRIC	PERFORATED FILM	Limits ppm
Total Lead (Pb)	<10	<10	<10	600
Sol. Barium (Ba)	<5	<5	<5	1000
Sol. Lead (Pb)	<5	<5	<5	90
Sol. Cadmium (Cd)	<5	<5	<5	75
Sol. Antimony (Sb)	<5	<5	<5	60
Sol. Selenium (Se)	<5	<5	<5	500
Sol. Chromium (Cr)	<5	<5	<5	60
Sol. Mercury (Hg)	<5	<5	<5	60
Sol. Arsenic (As)	<2.5	<2.5	<2.5	25

Sol. = Soluble *< = Less Than*

Granular Powder Acute and Chronic Toxicity:

Acute Oral Toxicity: LD_{50} rat
Dose: > 5,000 mg/kg
Method: Limit Test

Acute Dermal Toxicity: LD_{50} rat
Dose: > 2,000 mg/kg
Method: Limit Test

Skin Irritation: Rabbit
Method: OECD Nr. 404
Very Slight Irritation

Eye Irritation: Rabbit
Method: OECD Nr. 405
Very Slight

Sensitization: Guinea Pig
Method: OCED Nr. 406
Result: 0/20
No Sensitization

Acute Toxicity - LD_{50} /LC_{50}

Sodium Polyacrylate (9003-04-7)

LD_{50}: Oral LD50 Rat: >40g/kg

Chronic Toxicity: Chronic inhalation exposure to rates for a lifetime (2 years) using sodium polyacrylate that had been micronized to a respirable particle size (less than 10 microns) produced non-specific inflammation and chronic lung injury at 0.2mg/m³ and 0.8mg/m³. In the absence of chronic inflammation, tumors are not expected. There were no adverse effects detected at 0.5mg/m³.

12- ECOLOGICAL EFFECTS

Degradability: Not Biodegradable

Ecotoxicty: No indication this material is a risk to the environment.

13- DISPOSAL CONSIDERATIONS

Like most thermoplastics, this product can be recycled and is preferred to landfill disposal or incineration. If the ability to recycle is not available, this material can be disposed of in a regulated landfill or incinerated according to local and federal regulations.

14- TRANSPORT INFORMATION

This product is not regulated for transportation. There are no special conditions required for transport of any of this material, as it is not classified as a hazardous material under U.S. Department of Transportation, Canadian Transport, European Transport or United Nations regulations.

15- REGULATORY INFORMATION

U.S. Federal Regulations:

FDA:

Independent Lab tests have been conducted on each component of ThermaFreeze product and MEETS 21 CFR FDA Regulation Section 177.1350 Clause B on Ethylene-Vinyl Acetate Co-polymer (EVA) and 21 CFR FDA Regulation Section 177.1520 on Polymers, Olefin Polymers and Polyethylene for Direct Contact with Food.

TEST RESULTS

Condition of Use: For Use in articles that contact food except for articles used for packing or holding food during cooking

Test Results For FDA Regulation on Olefin Copolymer

PARAMETER	RESULT	LIMIT	CONCLUSION
Density	0.9	1.00	Pass
n-Hexane Extract	1.4% - 2.6%	5.5%	Pass
Solubles Xylene	3% - 3.7%	30%	Pass

Test Results For FDA Regulation on Ethylene-Vinyl Acetate (EVA)

Chloroform Soluble Extra Extractive Residue in the following:

PARAMETER	RESULT (mg/in²)	LIMIT (mg/in²)	CONCLUSION
Water Extract	< 0.10	0.5	Pass
Heptane Extract	< 0.10	0.5	Pass
8% Alcohol Extract	< 0.10	0.5	Pass

State Regulations:

Independent Lab tests have been conducted on each component of ThermaFreeze product and meets California Health and Safety Code, Part 3 Division 104, Chapter 11 Requirement on Phthalate.

Phthalate Content Test:

With reference to ASTM D3421, by gas Chromatographic-Mass Spectrometric (GC-MS) Analysis.

PARAMETER	RESULT	LIMIT	CONCLUSION
Dibutyl Phthalate (DBP)	< 0.01%	0.5	Pass
Diethyl Hexyl Phthalate (DEHP)	< 0.01%	0.5	Pass
Benzyl Butyl Phthalate (BBP)	< 0.01%	0.5	Pass
Di-iso-nonyl Phthalate (DINP)	< 0.01%	0.1	Pass
Di-N-octyl Phthalate (DNOP)	< 0.01%	0.1	Pass