



**To:** OEI State Sales, OEI Production, OEI Engineering, OEI Customer Service

**From:** Weston Schilawski  
OEI Mfg. Engineer

**Date:** 9.29.15

**RE:** Legion Core Change

Effective 9.29.15, The Legion panel core has changed from BIN board to the MAP fiberglass core with 3117 coating. The new MAP core has improved fabric and stiffener adhesion, NRC rating, and material handling properties. The current HL6278 face glue and M-279 stiffener glue can continue to be used in production with the change-over.

The MSDS sheet is attached for those who require this information.

All BOM's for upholstered panels (tile core) will be affected:

48.0014.BN.SIZE → 48.0014.FG.SIZE

48.0020.BN.SIZE → 48.0020.FG.SIZE

Model number pricing with the new core material will be unaffected.

Please contact me with any questions or concerns.

Thank you,

Weston Schilawski  
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920.468.2538



**Section I – Chemical Product and Company Identification**

MSDS Effective Date: August 03, 2006 Rev. 008  
MSDS Last Revision: May 17, 2004  
Product Name: Cured Fiberglass Products  
Generic name: Cured fibrous glass wool insulation, faced or unfaced.  
Manufacturer: Molded Acoustical Products of Easton, Inc.  
Three Danforth Drive  
Easton, PA 18045-7898  
Phone: (610) 253-7135 Fax (610) 253-1664  
8:00 am - 5:00 PM Eastern Time.  
www.mapeaston.com

**Section II - Component Data**

Component	CAS #	%
Fibrous Glass	65997-17-3	83-97
Urea extended phenol-formaldehyde resin	25104-55-6	3-17
Formaldehyde	50-00-0	<0.1
Carbon Black (Black Product only)	1333-86-4	0-2
Non-Woven Facings	Not Available	<1.0

**Section III – Hazards Identification**

**Appearance and Odor:** Amber/Yellow, or black fibrous glass blanket. Slight Formaldehyde odor.

Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion-- Remove affected individuals to fresh air.

Skin irritation may be treated by gently washing affected area with soap and warm water.

Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, contact a medical professional.

In the event of fire, use normal fire fighting procedures to prevent inhalation of smoke and gases.

**Potential Health Effects Summary**

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness. Additional health and safety information is provided in Section XI of this material safety data sheet.

Other irritating vapors such as formaldehyde from the Urea phenol-formaldehyde resin system may also be released in very small amounts.

**Emergency Overview:** The International Agency for Research on Cancer (IARC) has classified fiber glass wool as a

possible cancer causing agent to humans (Group 2B) when inhaled in the lungs. This classification was substantially based on experiments where fiber glass wool was injected or implanted in animals. However, large-scale human mortality studies of U.S. and European fiber glass wool factory workers did not provide conclusive evidence that fiber glass wool caused cancer in humans.

Even though the present epidemiological data is not conclusive, OSHA's interpretation of it requires that a warning be placed on this product. This warning identifies a possible hazard while not identifying the degree of risk.

OSHA believes the risk is not a threat to your health as long as the exposure to fiber glass wool is less than 1 fiber/cubic centimeter TWA (8 hour weighted time average). Fiber Glass wool exposure in the home, commercial buildings, and manufacturing facilities are generally found to be less than 1 fiber /cc. Installers and fabricators should be aware of their exposure levels and take appropriate actions if needed per recommended work practices.

MAP STRONGLY recommends following all safe work practices while installing fiber glass wool products.

**Most of MAP products have facings applied to both outer surfaces, and compressed perimeters which minimize any installer exposure to fiber glass wool.**

HMIS Rating: Health: 1 Fire: 0 Reactivity: 0 Protection: E

Primary Routes of Entry: Via respirable fibers to the lungs and respiratory system and airborne fibers to the skin and eyes.

Primary Target Organs: Lungs, respiratory system, skin and eyes.

Potential Health Effects:

Acute: Mechanical irritation of the skin, eyes and upper respiratory system.

Chronic: A 1987 epidemiological study of more than sixteen thousand U.S. man-made vitreous fiber manufacturing workers has shown no statistically significant increased risks of malignant or non malignant diseases. A 1990 update of this study reported a small statistically significant increase in respiratory cancer among workers when compared with the populations in their communities. Confounding factors such as smoking, exposure to other hazardous materials, etc., are thought to be responsible for this small apparent increase. An expanded study is currently underway to investigate other possible contributing factors.

Skin Contact: There are confirmed reports of contact dermatitis.

Eye Contact: A mechanical irritant, which can cause moderate to severe eye irritation.

Ingestion: Non-hazardous when ingested. Potentially, a mild irritant to the GI tract if excessive quantity is ingested.

Medical Conditions Aggravated by Exposure: Pre-existing chronic upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema, and asthma. Skin diseases such as dermatitis.

Carcinogenicity: This product contains respirable glass wool fibers, which are classified by IARC as group 2B (possibly carcinogenic to humans) and by NTP as group IIB (reasonably anticipated to be a human carcinogen).

Fiber glass wool has not been classified by OSHA.

## **Section IV - First Aid Measures**

### **First Aid: Inhalation**

Remove to fresh air. Drink water to clear throat, and blow nose to remove dust.

### **First Aid: Skin**

Wash gently with soap and warm water to remove dust. Wash hands before eating or using the restroom.

### **First Aid: Ingestion**

Product should not be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the

Irritation. No chronic effects are expected following ingestion.

#### **First Aid: Eyes**

Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for 5-15 minutes. If irritation persists, contact a medical professional.

#### **First Aid: Notes to Physician**

Irritating gases may be released under conditions of high heat or humidity. These could cause severe Upper Respiratory and eye irritation. Formaldehyde gas is a skin and respiratory sensitizer. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

### **Section V - Fire Fighting Measures**

**Flash Point:** Not applicable **Method Used:** Not applicable

**Upper Flammable Limit (UFL):** Not applicable **Lower Flammable Limit (LFL):** Not applicable

**Auto Ignition:** Not determined **Flammability Classification:** Not determined

**Rate of Burning:** Not determined

#### **General Fire Hazards**

There is no potential for fire or explosion.

#### **Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

#### **Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

### **Section VI - Accidental Release Measures**

#### **Containment Procedures**

Pick up large pieces. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean-up. These procedures will help to minimize potential exposures.

#### **Clean-Up Procedures**

Avoid the generation of dusts during clean-up.

### **Section VII - Handling and Storage**

#### **Handling Procedures**

Use protective equipment as described in Section VIII of this material safety data sheet when handling uncontained material.

#### **Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept dry, and protected from the elements.

### **Section VIII - Exposure Controls / Personal Protection**

#### **Exposure Guidelines**

##### **A: General Product Information**

Glass wool fiber, OSHA voluntary Health and Safety Partnership Program (HSPP): 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm.

##### **B: Component Exposure Limits**

###### **Fiber Glass Wool (65997-17-3)**

ACGIH: 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm; (Listed under 'Synthetic vitreous fibers') (related to Glass Wool Fiber)

OSHA: 5 mg/m<sup>3</sup> TWA respirable fraction (OSHA)

15 mg/m<sup>3</sup> TWA total dust (OSHA)

(related to Glass Wool Fiber)

###### **Carbon black (1333-86-4) (Only used with black color material, not Yellow/Tan Material)**

ACGIH: 3.5 mg/m<sup>3</sup> TWA

OSHA: 3.5 mg/m<sup>3</sup> TWA

## **Formaldehyde (50-00-0)**

ACGIH: C 0.3 ppm

OSHA: 0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

### **PERSONAL PROTECTIVE EQUIPMENT**

#### **Personal Protective Equipment: Eyes/Face**

Safety goggles are recommended to keep dust, fibers, gases, and vapors out of the eyes.

#### **Personal Protective Equipment: Skin**

Barrier creams may help reduce skin contact and irritation caused by fiberglass.

#### **Personal Protective Equipment: Respiratory**

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases, use a NIOSH-certified disposable or reusable particulate respirator with efficiency rating of N95 or higher (under 42 CFR 84) when working with this product. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher.

Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher.

#### **Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

#### **Personal Protective Equipment: General**

Loose-fitting, long-sleeved clothing should be worn to protect skin from irritation. Exposed skin areas should be washed with soap and warm water after handling or working with fiber glass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiberglass being transferred to other clothing.

## **Section IX - Physical & Chemical Properties**

**Appearance:** Yellow/Amber or Black fibrous glass board

**Odor:** Phenol/Formaldehyde odor

**Physical State:** Solid **pH:** Not applicable

**Vapor Pressure:** Not applicable **Vapor Density:** Not applicable

**Boiling Point:** Not applicable **Melting Point:** >87°C/1600°F

**Solubility (H<sub>2</sub>O):** Variable **Specific Gravity:** Variable

**Freezing Point:** Not applicable **Evaporation Rate:** Not applicable

**Percent Volatile:** Variable **VOC:** Not applicable

## **Section X - Chemical Stability & Reactivity Information**

### **Chemical Stability**

This is a stable material.

### **Hazardous Decomposition**

The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis, or burning, of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and traces of hydrogen cyanide. Formaldehyde gas may also be released during decomposition.

### **Hazardous Polymerization**

Will not occur.

## **Section XI - Toxicological Information and Ecological Information**

### **Acute Toxicity**

**A: General Product Information**

Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.

Gases released under conditions of high heat and humidity can cause severe eye and respiratory irritation.

**B: Component Analysis - LD50/LC50****Urea extended phenol-formaldehyde resin (25104-55-6)**

Oral LD50 Rat : 7 gm/kg

Oral LD50 Mouse : 7 gm/kg

**Carbon black (1333-86-4)**

Oral LD50 Rat : >15400 mg/kg

Dermal LD50 Rabbit : >3 gm/kg

**Formaldehyde (50-00-0)**

Inhalation LC50 Rat : 203 mg/m<sup>3</sup>

Inhalation LC50 Mouse : 454 mg/m<sup>3</sup>/4H

Oral LD50 Rat : 100 mg/kg

Oral LD50 Mouse : 42 mg/kg

Dermal LD50 Rabbit : 270 uL/kg

**Carcinogenicity****A: General Product Information**

No data for this product as a whole.

**B: Component Carcinogenicity****Fiber Glass Wool (65997-17-3)**

ACGIH: A3 - Animal Carcinogen (related to Glass wool fibers)

NTP: Suspect Carcinogen (related to Glasswool) (Possible Select Carcinogen)

IARC: Monograph 81, 2002 (related to Glasswool) (Group 3 (not classifiable as to its carcinogenicity to humans))

**Carbon black (1333-86-4)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Monograph 65, 1996 (Group 2B (possibly carcinogenic to humans))

**Formaldehyde (50-00-0)**

ACGIH: A2 - Suspected Human Carcinogen

OSHA: 0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential cancer hazard (29 CFR 1910.1048)

NTP: Suspect Carcinogen (Possible Select Carcinogen)

IARC: Monograph 62, 1995 (Group 2A (probably carcinogenic to humans))

**Chronic Toxicity**

Exposure to formaldehyde gas (released under conditions of high heat or humidity) may cause eye and upper respiratory irritation, and possible respiratory or skin sensitization (allergy). If sensitization occurs, subsequent exposures to formaldehyde may worsen asthma or other respiratory problems, and cause allergic type reactions.

Exposure to formaldehyde gas has been associated with the development of nasal tumors in laboratory animals.

Formaldehyde has been classified as a probable human carcinogen, Group 2A, by the International Agency for Research on Cancer (IARC), and the Occupational Safety and Health Administration (OSHA), and National Toxicology Program (NTP) considered formaldehyde to have carcinogenic potential. OSHA specifically regulates formaldehyde under 29 CFR 1910.1048.

Fiber Glass Wool: In October 2001, IARC classified fiber glass wool as Group 3, "not classifiable as to its carcinogenicity to humans." The 2001 decision was based on current human and animal research that shows no association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This is a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiber glass. NTP and ACGIH have not yet reviewed the IARC reclassification or the most current fiber glass health research; at this time, both agencies continue to classify glass wool based on the earlier animal injection studies.

**Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity****Formaldehyde (50-00-0)**

EC50 (30 min) Photobacterium phosphoreum:3.00-10.2 mg/L Microtox test.:  
EC50 (96 hr) water flea:20 mg/L.:

## Section XII - Disposal Considerations

**Waste Disposal Method:** This product is not regulated under the RCRA Hazardous Waste Regulations. May be disposed in landfill. If unsure, contact the local office of the USEPA, your local public health department or the local landfill regulators.

## Section XIII - Transportation Information

US DOT Shipping Name: Not regulated

DOT Label: None

UN/NA Number: None

## Section XIV – Regulatory Information

**OSHA Status:** This product is considered hazardous under OSHA criteria.

**TSCA/CEPA Status:** All components of this product are included in the TSCA and CEPA Chemical Inventories.

**CERCLA Reportable Quantity:** N/A

### SARA Title III:

**Section 302 Extremely Hazardous:** This product contains NO extremely hazardous substances as defined and listed in Section #302.

**Section 311/312 Hazard Categories:** Reportable as a hazardous substance. Check with your Local Emergency Planning Committee for reportable quantities.

**Sections 313 Toxic Chemicals:** This product does NOT contain substances which are reportable under Section 313.

**Canada (WHMIS):** This product is class D2A controlled product under Canadian WHMIS regulations.

## Section XV – Approvals

**Reason for Issue:** Update info

**Revision:** 008

**Prepared by:** MAP Technical Dept.

**Supersedes Date:** May 17, 2004 Revision 007

## Section XVI – Disclaimer

As of the date of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with the applicable federal and state laws. However, no warranty or representation of law or fact, with respect to such information, is intended or given.