

HUDSON

MATERIAL SAFETY DATA SHEET

DATE PREPARED: 11/26/2002

MSDS No: MPB-50

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT CODE: MPB-50**PRODUCT FORMULATION NAME:** Black Phenolic Powder, 50 pound container**MANUFACTURER**

Hudson Supply Company

4500 Lee Rd

Cleveland, OH 44128-2959

Customer Service: (800) 486-0480**24 HR. EMERGENCY TELEPHONE NUMBERS****CHEMTREC (U.S.):** (800) 424-9300**Emergency Phone:** (800) 424-9300

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>Wt. %</u>	<u>CAS#</u>
Carbon black	<12	1333-86-4
Phenol	<6.3	108-95-2
Graphite (natural)	<40	7782-42-5
Mica (containing less than 1% quartz)	<60	12001-62-2
Coal Dust	<18	
Talc	<20	14307-96-6

COMPONENTS :**EXPOSURE LIMITS**

<u>Chemical Name</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Supplier</u>
Carbon black	3.5 mg/m ³	3.5 mg/m ³	
Phenol	5 ppm	5 ppm	
Graphite (natural)	15 Mppcf	2 mg/m ³	
Mica (containing less than 1% quartz)	20 Mppcf	3 mg/m ³	
Coal Dust	2.4 mg/m ³	2 mg/m ³	
Talc	20 Mppcf	2 mg/m ³	

3. HAZARDS IDENTIFICATION

COMMENTS: AS SOLD:

THE PRODUCT IS A PLASTIC MOLDING COMPOUND: A PLASTIC RESIN (PHENOL-FORMALDEHYDE POLYMER) INTIMATELY MIXED WITH ONE OR MORE OF A VARIETY OF ORGANIC AND/OR

INORGANIC FILLING MATERIALS. THE PLASTIC RESIN IS NOT BELIEVED OR KNOWN TO BE HAZARDOUS. WHEN FULLY "CURED" OR REACTED, THE PLASTIC RESIN IS INSOLUBLE, INFUSIBLE AND BINDS THE WELL-DISPersed, EMBEDDED FILLING MATERIALS. HOWEVER, "AS SOLD" THE PLASTIC RESIN IS NOT COMPLETELY "CURED" OR REACTED AND CONTAINS SOME UNREACTED INGREDIENTS DISSOLVED WITHIN IT. SO DISSOLVED, THESE CHEMICALS ARE EXTREMELY UNLIKELY TO POSE A HAZARD; BUT BECAUSE THEY ARE HAZARDOUS IN THEIR PURE FORMS, OSHA REQUIRES THAT THEY BE REPORTED AND DESCRIBED AS HAZARDOUS INGREDIENTS. UNDER NORMAL CONDITIONS OF STORAGE AND HANDLING, NO SIGNIFICANT AMOUNT OF HAZARDOUS VAPORS SHOULD EVOLVE FROM THE AS SOLD PRODUCT. BECAUSE PHENOL IS MORE SOLUBLE IN THE RESIN THAN IN WATER, THERE IS NO LIKELY SIGNIFICANT HEALTH HAZARD THROUGH SKIN ABSORPTION. THE GREAT MAJORITY OF FILLING MATERIALS ARE EMBEDDED WITHIN COMPOUND GRANULES THAT ARE LARGE ENOUGH NOT TO CONSTITUTE AN INHALATION HAZARD. NEVERTHELESS, SOME PARTICLES OF PLASTIC RESIN AND/OR FILLING MATERIALS MAY BE PRESENT IN A SIZE THAT CONSTITUTES A RESPIRABLE DUST. (INCLUDING IN SOME PRODUCTS, UP TO 1% INORGANIC FILLING MATERIALS MIXED IN AFTER COMPOUNDING). THIS RESPIRABLE DUST MAY CONTAIN ONE OR MORE OF THE FOLLOWING MATERIALS: CARBON BLACK, COAL DUST, FIBROUS GLASS, GRAPHITE, MICA, MINERAL WOOL FIBER, TALC, AND/OR WOOD FLOUR (SOFT). CHRONIC INHALATION OF EACH OF THE ABOVE HAS BEEN ASSOCIATED WITH FIBROTIC LUNG DISEASE. FOR MOST OR ALL, IT HAS BEEN ASSOCIATED WITH INCREASED RISK OF LUNG CANCER, ESPECIALLY AMONG SMOKERS. INHALATION OF DUST SHOULD BE AVOIDABLE WITH PROPER MATERIAL HANDLING PROCEDURES AND GOOD VENTILATION, BUT IF NOT, RESPIRATORS SHOULD BE WORN. THE PRIMARY ACUTE HEALTH RISK FROM EXPOSURE TO THE PRODUCT "AS SOLD" IS IRRITATION, ESPECIALLY FROM THE DUST. INGESTION, INHALATION OF DUST, AND CONTACT WITH SKIN AND EYES SHOULD BE AVOIDED

AS USED:

DURING POLYMERIZATION (E.G., CURING OF THE PRODUCT DURING NORMAL PROCESSING) OR DECOMPOSITION (E.G., THE OVERHEATING OR BURNING OF THE PRODUCT) SMALL AMOUNTS OF GASEOUS AMMONIA, PHENOL AND FORMALDEHYDE (AS WELL AS WATER VAPOR, CARBON MONOXIDE AND CARBON DIOXIDE) ARE EVOLVED. BREATHING OF THE FUMES CAN BE HARMFUL. IF THE ODOR OF AMMONIA OR FORMALDEHYDE IS NOTICEABLE, THE AIRBORNE CONCENTRATION OF THOSE CHEMICALS SHOULD BE CAREFULLY MONITORED AND VENTILATION IMPROVEMENTS CONSIDERED; THOSE CHEMICALS BEGIN TO BE DETECTABLE BY ODER AT CONCENTRATIONS APPROACHING OR EXCEEDING THE PELD. THE ODOR OF PHENOL BEGINS TO BE NOTICEABLE AT A CONCENTRATION ABOUT ONE-FIFTH THE PEL. IN ANY CASE, ADEQUACY OF VENTILATION CAN BEST BE DETERMINED BY USE OF INSTRUMENTS TO MONITOR AIRBORNE CONCENTRATIONS OF AMMONIA, PHENOL AND FORMALDEHYDE. GRINDING OR MACHINING OF CURED MOLDED MATERIAL MAY CREATE A DUST THAT POSES A RESPIRATORY HAZARD IF INHALED, AND MAY RELEASE SMALL AMOUNTS OF GASEOUS AMMONIA.

ACUTE OR CHRONIC HEALTH HAZRAD INFORMATION

ORDINARY USE OF THIS PRODUCT IS UNLIKELY TO PRODUCE SIGNIFICANT EXPOSURE TO HAZARDOUS CHEMICALS. PELS FOR THESE CHEMICALS ARE SET AT LEVELS DESIGNED TO AVOID ANY SIGNIFICANT HEALTH RISK AND ARE ACHIEVABLE WITH PROPER MATERIAL HANDLING PROCEDURES, VENTILATION AND HOUSEKEEPING. NEVERTHELESS, PER OSAH REQUIREMENT, WE LIST THE FOLLOWING POSSIBLE HEALTH HAZARDS IF ONE WE EXPOSED TO THE FOLLOWING CHEMICALS AT LEVELS MUCH HIGHER, OR IN A DIFFERENT FORM, THAN EXPECTED FROM ORDINARY USE OF THIS PRODUCT:

1. PHENOL- HIGHLY TOXIC. POSIONING MAY OCCUR VIA SKIN APSORPTION, VAPOR INHALATION, OR INGESTION. INHALATION OF THESE VAPORS MAY CAUSE SEVERE IRRITATION TO THE NOSE, THROAT AND RESPIRATORY TRACT. MAY CAUSE LIVER, KIDNEY AND HEART DAMAGE.
2. FORMALDEHYDE- IRRITANT TO THE EYES, LUNGS AND SKIN. HAS BEEN SHOWN TO CAUSE CANCER IN LABORATORY ANIMALS. LISTED AS AN IARC CARCINOGEN. CALIFORNIA LAW REQUIRES THE FOLLOWING STATEMENT BE INCLUDED: CONTAINS A CHEMICAL (FORMALDEHYDE) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. NATIONAL CANCER INSTITUTE STUDY FINDS LITTLE EVIDENCE TO CONNECT FORMALDEHYDE EXPOSURE WITH CANCER IN HUMANS.
3. AMMONIA- IRRITANT TO EYES, MUCOUS MEMBRANES AND RESPIRATORY TRACT.
4. CARBON BLACK- IRRITANT TO EYES AND RESPIRATORY TRACTS. EXPOSURE AT HIGH LEVELS IS ASSOCIATED WITH DECLINES IN PULMONARY FUNCTION AND CARDIOVASCULAR STRESS.
5. COAL DUST- IRRITANT TO EYES, NOSE AND THROAT. CAN CAUSE RESPIRATORY EFFECTS SUCH AS PNEUMOCONIOSIS, BRONCHITIS, EMPHYSEMA AND PROGRESSIVE MASSIVE FIBROSIS, WITH LONG EXPOSURE.
6. FIBROUS GLASS- MECHANICAL IRRITANT TO EYES, NOSE AND SKIN. CAN CAUSE IRRITATION AND INFLAMMATION OF THE NASOPHARYNGEAL REGION AND UPPER RESPIRATORY TRACT.
7. GRAPHITE- IRRITANT TO EYES AND RESPIRATORY TRACTS. CAN CAUSE PNEUMOCONIOSIS, ALTHOUGH STUDIES SUGGEST THAT PNEUMOCONIOSIS IS A MIXED DUST REACTION.
8. MICA- IRRITANT TO EYES. OSHA BELIEVES THAT THE EVIDENCE STRONGLY SUGGESTS THAT IT IS A PNEUMOCONISTIC AGENT.
9. MINERAL WOOL FIBER- IRRITANT TO EYES AND SKIN. SEVERAL STUDIES HAVE SHOWN EXCESS RISK OF NON-MALIGNANT RESPIRATORY DISEASE.
10. TALC- IRRITANT TO EYS, MUCOUS MEMBRANES AND RESPIRATORY TRACTS. MEDICAL

EVIDENCE IS COMPLICATED BY THE FACT THAT TALCS CONTAIN AMPHIBOLES AND OTHER MINERALS.

4. FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water for two to three minutes. Remove any contact lenses and continue flushing for 15 minutes. Get medical attention.

SKIN: Wash thoroughly with soap and water.

INGESTION: Induce vomiting and seek medical attention immediately.

INHALATION: Remove from further exposure. Keep warm and at rest. If cough or other symptoms develop, seek medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: Not Applicable

FLAMMABLE LIMITS: .030 oz/ cubic foot to N/A

AUTOIGNITION TEMPERATURE: Not Applicable

EXTINGUISHING MEDIA: Water, foam, dry chemical, carbon dioxide.

EXPLOSION HAZARDS: Organic dust/air mixtures are highly flammable (explosive); Avoid dust accumulations or dust-laden atmospheres, and sources of ignition.

FIRE FIGHTING EQUIPMENT: Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (Bunker Gear) and self contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of a SCBA may not be required.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Sweep or vacuum spills into appropriate containers for disposal. Follow standard landfill methods consistent with applicable Federal, State and Local laws.

LARGE SPILL: Sweep or vacuum spills into appropriate containers for disposal. Follow standard landfill methods consistent with applicable Federal, State and Local laws.

7. HANDLING AND STORAGE

HANDLING: Use appropriate personal protective equipment as specified in Section 8. Handle in a well ventilated area.

Handle and use in a manner consistent with good industrial/manufacturing techniques and practices.

STORAGE: Store in unopened containers under cool and dry conditions.

COMMENTS: Avoid excessive heat and sources of ignition. Observe good housekeeping practices.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: If dust is generated, provide local exhaust ventilation to control airborne levels below the ACGIH TLV-TWA exposure limit for Particulates Not Otherwise Classified of 10 mg/m³ for inhalable particles and 3 mg/m³ for respirable.

PERSONAL PROTECTION

EYES AND FACE: Wear safety glasses with side shields or goggles when handling this material.

RESPIRATORY: Use NIOSH/MSHA approved air supplied respirator in absence of proper environmental control.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Odorless

APPEARANCE: Granular

PERCENT VOLATILE: 0

VAPOR PRESSURE: Not Applicable

VAPOR DENSITY: Not Applicable

BOILING POINT: Not Applicable

FREEZING POINT: Not Applicable

MELTING POINT: Not Applicable

SOLUBILITY IN WATER: Negligible

EVAPORATION RATE: Not Applicable

SPECIFIC GRAVITY: Not Applicable

10. STABILITY AND REACTIVITY

STABLE: YES

HAZARDOUS POLYMERIZATION: NO

CONDITIONS TO AVOID: Heat.

HAZARDOUS DECOMPOSITION: Vapors evolved during polymerization may contain Phenol,

Formaldehyde or Ammonia.

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: This material may cause significant irritation to the eyes.

CARCINOGENICITY:

IARC: Not listed by IARC

NTP: Listed by NTP - No

OSHA: Not listed by OSHA

12. ECOLOGICAL INFORMATION

COMMENTS: Not Applicable

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: In compliance with Federal, State and local regulations for landfills.

14. TRANSPORT INFORMATION

COMMENTS: Not Applicable

15. REGULATORY INFORMATION

GENERAL COMMENTS: Not Applicable

16. OTHER INFORMATION

APPROVAL DATE: 12/09/2002

REVISION SUMMARY New MSDS

HMIS CODES

FLAMMABILITY: 1 **HEALTH:** 2 **PHYSICAL HAZARD:** 0

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