

## Safety Data Sheet

**Product No. 813-410, 813-411, 813-412 Phenolic Mount Powder, Black, Red and Green**

**Issue Date (01-13-17)**

**Review Date (10-29-20)**

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### Section 1: Product and Company Identification

**Product Name: Phenolic Mount Powder, Black, Red and Green**

Synonym: Phenolic molding compound, 2-stage.

PRODUCT DESCRIPTION: Phenol-formaldehyde novolac containing hexamethylenetetramine molding compound

**Company Name**

**Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477**

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

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### Section 2: Hazard Identification

GHS Classification:

Health:

Serious Eye Damage/ Eye Irritation, Category 1 Skin Sensitization, Category 1B

Germ Cell Mutagenicity, Category 2

Target Organ Toxicity (Single exposure), Category 3 Target Organ Toxicity (Repeated exposure), Category 1

Physical:

Combustible Dust

Label Elements:

GHS Pictograms:



Signal Word: *DANGER*

Hazard Statements:

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H341: Suspected of causing genetic defects.

H335: May cause respiratory irritation.

H372: Causes damage to organs through prolonged or repeated exposure.

H: May form combustible dust concentrations in air.

Precautionary Statements:

Prevention:

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe dust.

P264: Wash hands and forearms thoroughly after handling. P270: Do not eat, drink or smoke when using this product. P271: Use only outdoors or in a well-ventilated area.

P272: Contaminated work clothing should not be allowed out of the workplace. P280: Wear protective gloves/protective clothing/eye protection/face protection. P281: Use personal protective equipment as required.

Response:

P302+P352: IF ON SKIN: Wash with plenty of water and soap.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313: IF exposed or concerned: Get medical advice/ attention. P314: Get medical advice/attention if you feel unwell.

P321: Specific treatment: Wash affected areas immediately with plenty of water and soap. P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention. P362+P364: Take off contaminated clothing and wash it before reuse.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents and empty containers in accordance with local, regional and federal regulations.

Hazard Not Otherwise Classified (HNOC) or not covered by GHS: Organic dust can form highly explosive mixtures when finely suspended in air. Avoid dust-laden atmospheres; minimize dust generation and accumulation. Eliminate sources of ignition, e.g. open flames, sparks or electrostatic discharge, or use explosion proof motors where needed.

Results of PBT and vPvB assessment: PBT: ND

vPvB: ND

Health Effects:

NFPA Hazard Rating: Health: ND; Fire: **ND**; Reactivity: ND

HMIS® Hazard Rating: Health: ND; Fire: ND; Reactivity: ND

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Emergency overview

IMMEDIATE CONCERNS: HAZARD NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS: Organic dust can form highly explosive mixtures when finely suspended in air. Avoid dust-laden atmospheres; minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces. Dry powders can build up static electric charges when subjected to the friction of transfer and mixing operations. Implement adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Eliminate all sources of ignition, e.g. open flames, sparks or electrostatic discharge, or use explosion proof motors where needed. Ensure that all areas where explosions could occur are designated appropriately. For recommendations to prevent such explosions and associated damage, consult applicable guidelines such as NFPA 68, "Standard on Explosion Protection by Deflagration Venting", NFPA 69, "Standard on Explosion Prevention Systems" and/ or NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids". For more information refer to Section #7 of this SDS.

Appearance: Black, Red or Green Powder, Granular, nodular, pellet, or briquette

Immediate effects:

**Potential health effects**

Primary Routes of entry: Inhalation, ingestion and through skin contact.

Signs and Symptoms of Overexposure: EYES: Redness, burning sensation and tearing (watering) of the eyes.

SKIN: Skin dryness or irritation. SKIN ABSORPTION: Skin absorption is unlikely to occur due to the physical form of the material.

INGESTION: No effects known.

Eyes: Contact may cause eye irritation or damage.

Skin: Contact may cause allergic skin reactions.

Ingestion: May be harmful if swallowed.

Inhalation: Dust particles may cause respiratory tract irritation, coughing and wheezing.

Chronic Exposure: INHALATION: Harmful if inhaled. If breathing is affected, immediately move to fresh air. Seek medical attention if headache, dizziness or visual problems develop. Administer oxygen if breathing difficulty persists.

Chemical Listed As Carcinogen Or Potential Carcinogen:

REPRODUCTIVE TOXICITY:

REPRODUCTIVE EFFECTS: Not known or believed to be a reproductive toxin.

TERATOGENIC EFFECTS: Not known or believed to be teratogenic.

CARCINOGENICITY: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen.

MUTAGENICITY: Phenol is a mutagen, which tested positive in in-vivo and in-vitro assays.

**COMMENTS:** Refer to Section 11 for detailed information on health effects and symptoms.

**AS SOLD** the product is a plastic molding compound: A plastic resin (phenol-formaldehyde polymer) intimately mixed and reacted with one or more of a variety of organic and/or inorganic filling materials. 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 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 material 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 also 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, Personal Protective Equipment (PPE) 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., 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, then the airborne concentration of these chemicals should be carefully monitored and ventilation improvements considered; These chemicals begin to be detectable by odor at concentrations approaching or exceeding the PEL. 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 (see above) and may release small amounts of gaseous ammonia.

See Toxicological Information (Section 11)

**Potential environmental effects**

See Ecological Information (Section 12)

<b>Principle Component(s) (chemical and common name(s)) (Cas. No)</b>	<b>%</b>	<b>OSHA PEL mg/m3</b>	<b>ACGIH TLV mg/m3</b>	<b>NTP</b>	<b>IARC</b>	<b>OSHA regulated</b>
Phenol Formaldehyde Resin (9003-35-4)	30-60	5 ppm	5 ppm	ND	ND	ND
Hexamethylenetetramine (100-97-0)	2-15	ND	ND	No	No	No
Phenol (108-95-2)	< 3.5	19, 5ppm	19, 5ppm	ND	Group 3	ND
Formaldehyde (50-00-0)	< 0.1	0.75 ppm	ND	K	Group 1	Yes
Calcium Hydroxide (1305-62-0)	0-10	ND	5	No	No	No
Carbon Black (1333-86-4)	0-12	3.5	3.5	No	Possible	No
Coal Dust (None)	0-18	10	2	No	Group 3	No
Graphite, natural 7782-42-5)	0-40	15 cf ppm	ND	No	No	No
Kaolin (1332-58-7)	0-40	15	2	No	No	No
Mica (12001-26-2)	0-60	20 cf ppm	3	No	No	No
Talc (14807-96-6)	0-20	20 cf ppm	2	No	No	No
Wood Flour (None)	0-60	15	1	No	No	No

\* Non-hazardous materials

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#### **Section 4: First Aid Measures**

##### **If accidental overexposure is suspected**

Eye(s) Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes while lifting the eyelids. Seek medical attention if irritation occurs.

Skin Contact: Flush with large amounts of water for at least 10 minutes. Remove contaminated clothing. Seek medical attention if adverse effects occur.

Inhalation: Harmful if inhaled. If breathing is affected, immediately move to fresh air. Seek medical attention if headache, dizziness or visual problems develop. Administer oxygen if breathing difficulty persists.

Ingestion: No effects known.

ACUTE EFFECTS: None Expected.

CHRONIC EFFECTS: None Expected.

##### **Note to physician**

Treatment: If decomposition products are inhaled in a fire, symptoms may be delayed. The person exposed to fumes or decomposition products may need to be kept under medical surveillance.

TARGET ORGAN STATEMENT: Possibility of organ or organ system damage from prolonged exposure; target organs: heart, kidney, liver, skin, central nervous system (CNS), respiratory system.

IRRITANCY: Dust particles have the potential to cause mechanical irritation of skin and eyes.

SENSITIZATION: Contact may cause allergic skin reactions.

Medical Conditions generally Aggravated by Exposure: Asthma, Respiratory disorders, Skin Allergies, and Eczema.

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#### **Section 5: Fire Fighting Measures**

Flash Point: NA

Flammable Limits: LEL: Dust. 0.030 oz. per cubic foot to UEL: No data

Auto-ignition point: NA

Fire Extinguishing Media: Dry Chemical, carbon dioxide (CO<sub>2</sub>), alcohol resistant foam or water spray.

Flame Propagation or Burning Rate of Solids: Product does not sustain fire or propagate flames.

Special Fire Fighting Procedures: Wear appropriate equipment for fire conditions.

Unusual Fire and Explosion Hazards: Clouds of flammable particles suspended in air may form explosive mixtures. Avoid the generation of dust/ air mixtures and remove any sources of ignition, e.g. flames, sparks, flares or electrostatic discharge.

Hazardous combustion products: Phenol, formaldehyde, ammonia, carbon dioxide and carbon monoxide.

Sensitive to Static Discharge: Electrostatic discharge may trigger a dust explosion if sufficient quantities of combustible particles are suspended in air.

Sensitivity to Impact: Not Applicable

DOT Class: Not classifiable as a flammable material.

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### **Section 6: Accidental Release Measures**

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

SMALL SPILL: With shovel and scoop, place material into clean, dry container; move containers from spill area. Minimize air-borne particulates. Use Personal Protective Equipment (PPE) to protect against inhalation of dust. Wear eye protection, gloves and avoid contact with skin.

LARGE SPILL: Use the same methods described for small spills. Place material into appropriate containers for disposal.

RELEASE NOTES: Inform the relevant authorities if the product has been discharged into the environment, e.g. sewers, waterways, soil or air.

SPECIAL PROTECTIVE EQUIPMENT: Not Established

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

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### **Section 7: Handling and Storage**

Precautions to be taken in Handling and Storage:

HANDLING: Use with adequate ventilation and utilize Personal Protection Equipment (PPE) if exposure limits are exceeded. Point source exhaust recommended to remove airborne dust particles during use. Avoid sources of ignition, e. g. heat, flames or electrostatic charges, or use explosion proof motors where needed. Avoid contact with eyes and repeated or prolonged contact with skin. Wash hands thoroughly after handling. Keep away from food or drinking water.

STORAGE: Store in original unopened or closed packaging,

SPECIAL SENSITIVITY: Like most organic compounds this product is sensitive to strong oxidizing agents and may either decompose or ignite when mixed with same.

ELECTROSTATIC ACCUMULATION HAZARD: Point source exhaust recommended to remove dust particles evolved during handling or processing. Control build-up of dust and eliminate sources of ignition, e.g. open flames, sparks or electrostatic

Storage temperature: Ideally at temperature less than 86°F (30°C) and under humidity control.

Storage Pressure: NA

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### **Section 8: Exposure Controls / Personal Protection**

#### **Engineering Controls**

Ventilation required: If the handling or processing of the resin generates dust, use ventilation to keep exposure to airborne particles below the permissible exposure limits. Monitoring of the workplace atmosphere may be required to ensure the effectiveness of the engineering controls and/ or the necessity to utilize Personal Protection Equipment (PPE).

Maintain a clean work environment and practice good hygiene. Wash hands, face and forearms thoroughly after handling of this product, before eating or drinking and at the end of the work shift.

#### **Personal Protection Equipment**

Respiratory protection: If exposure limits are exceeded, use properly fitted respiratory protection equipment particularly selected for the prevailing conditions

Protective gloves: Wear protective chemical resistant gloves to prevent skin contact.

Skin protection: Wear protective clothing to prevent skin contact. Remove contaminated clothing immediately and wash thoroughly before reuse

Eye protection: Wear protective clothing and chemical resistant gloves to prevent skin contact.

Additional clothing and/or equipment: Chemical fume hood and dust mask. Eye wash station.

## Exposure Guidelines

See Composition/Information on Ingredients (Section 3)

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## Section 9 Physical and Chemical Properties

Appearance and Physical State: Black, Green or Red, Granular, nodular, pellet, or briquette.

Odor (threshold): Slight odor of phenol (ND).

Specific Gravity (H<sub>2</sub>O=1): ND

Vapor Pressure (mm Hg): NA

Vapor Density (air=1): NA

Percent Volatile by volume: NA

Evaporation Rate (butyl acetate=1): NA

Boiling Point: NA

Freezing point / melting point:

pH: NA

Solubility in Water: Negligible

Molecular Weight: NA

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## Section 10: Stability and Reactivity

Stability: This product is stable under normal conditions of storage and use.

Conditions to Avoid: Avoid storage at high temperatures or exposure to open flames.

Materials to Avoid (Incompatibility): Like most organic compounds this product is sensitive to strong oxidizing agents and may either decompose or ignite when mixed with same. Avoid contact with strong oxidizers as this may lead to violent reactions

Hazardous Decomposition Products: Vapors evolved during decomposition may contain phenol, formaldehyde, ammonia, carbon dioxide and carbon monoxide.

Hazardous Polymerization: Should not occur

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## Section 11: Toxicological Information

Results of component toxicity test performed:

Acute Toxicity

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
Phenol	317 mg/ kg BW (rat)	630 mg/ kg BW (rabbit)	316 mg/ m <sup>3</sup> (rat/ 1h)
Formaldehyde	800 mg/ kg BW (rat)	270 mg/ kg BW (rabbit)	578 mg/ m <sup>3</sup> (rat/ 1h)
Calcium Hydroxide	7340 mg/ kg BW (rat)		

DERMAL LD50: > 5000 mg/ kg bodyweight (rabbit)

Notes: Mixture - Acute Toxicity Estimate (ATE)

ORAL LD50: > 5000 mg/ kg bodyweight (rat)

Notes: Mixture - Acute Toxicity Estimate (ATE)

INHALATION LC50: No data available.

SKIN CORROSION/IRRITATION: No data available

Human experience: ND

SERIOUS EYE DAMAGE/IRRITATION: Contact may cause severe eye irritation or damage.

RESPIRATORY OR SKIN SENSITISATION: May cause allergic respiratory and skin reactions. GERM CELL

MUTAGENICITY: Phenol: Classified as a mutagen (Category 2).

Carcinogenicity

Chemical Name	NTP Status	IARC Status	OSHA
Phenol	Not Available	Group 3 The agent is not classifiable as to its carcinogenicity in humans	Not Available
Formaldehyde	Known to be a human carcinogen	Group 1: carcinogenic to humans	Potential human carcinogen

NOTES: Less than 0.1% formaldehyde present.

REPRODUCTIVE TOXICITY: None known.

STOT-REPEATED EXPOSURE: Prolonged or repeated exposure may lead to chronic effects. Target organs: heart, liver, kidney, skin, central nervous system (CNS), respiratory system.

GENERAL COMMENTS: This product may contain a small amount crystalline silica (quartz), as a natural occurring impurity in mineral. The mineral is encapsulated within the molding compound by resin. Significant exposure to free respirable quartz is not expected under normal conditions of use and processing of this product. Respirable quartz may be released by grinding, machining or abrading of this product. The NTP's Report on Carcinogens lists crystalline silica (respirable size) as a known human carcinogen. IARC concluded that there is sufficient evidence in humans for the carcinogenicity of inhaled (respirable) crystalline silica.

This product **does** contain compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

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## Section 12: Ecological Information

Ecological Information: [This section deliberately left blank]

Chemical Fate Information:

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## Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: ND

PRODUCT DISPOSAL: Avoid or minimize the generation of waste. Contact a licensed waste disposal contractor to manage the disposal of non-recyclable material.

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

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## Section 14: Transportation Information

US DOT Information: Not regulated or Not Hazardous

IATA: Not regulated or Not Hazardous

IMO: Not regulated or Not Hazardous

Canadian TDG: Not regulated or Not Hazardous

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## Section 15: Regulatory Information

### United States Federal Regulations

MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) EPCRA SECTION 313 SUPPLIER NOTIFICATION SARA Title III:

Chemical Name	Weight %	CAS #
Phenol	< 3.5	108-95-2

RCRA: ND

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS #
Phenol Formaldehyde Resin	9003-35-4
Hexamethylenetetramine	100-97-0
Phenol	108-95-2
Formaldehyde	50-00-0
Calcium Hydroxide	1305-62-4
Carbon Black	1333-86-7
Graphite (natural)	7782-42-5
Kaolin	1332-58-7
Talc	14807-96-6

Clean Air Act

Chemical Name	CAS #
Formaldehyde	50-00-0

CERCLA: (Comprehensive Environmental Response, Compensation, And Liability Act)

Chemical Name	Weight %	CERCLA RQ	Units
Phenol	< 3.5	1000	LBS
Formaldehyde	< 0.1	100	LBS

### State Regulations

California Proposition 65:

Chemical Name	Weight %	Listed
Formaldehyde	<0.1	Cancer
Carbon Black	0.12	Cancer
Wood Flour	0-60	Cancer

### International Regulations

Canada WHMIS:

Europe EINECS Numbers:

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### Section 16: Other Information

Label Information: See section 2

European Risk and Safety Phrases: ND

European symbols needed: ND

Canadian WHMIS Symbols: ND

### Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

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**Disclaimer**

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

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