Section 1: Identification

Product Name: Hardening Compound Plus (25lb)
Product Code: PW0403900
Recommended Use: Different by design and made for difficult cases. Specifically formulated for use in difficult donor and autopsy repair: Heavy Edema; Damaged Circulatory System; Long Term Coroner Hold; Penetrating Trauma; Long Bone and Organ Donor; Highly effective fungicide, and bactericide.
Restrictions on Use: Professional embalmer use only; not for general consumer use.
Manufacturer: TNPC, LLC – Dallas, TX 75236
Distributed by: Pierce Companies – 4722 Bronze Way – Dallas, TX 75236 – (214) 333-4230
Emergency Phone Number: CHEMTREC – (800) 424-9300

Section 2: Hazard(s) Identification

GHS Classification:

- Acute Toxicity (Oral), Category 4
- Acute Toxicity (Inhalation), Category 4
- Skin Sensitization, Category 1
- Serious Eye Damage, Category 1
- Specific Target Organ Toxicity - Single Exposure, Category 3 (Respiratory Tract Irritation)
- Germ Cell Mutagenicity, Category 2
- Carcinogenicity, Category 1A

Signal Word: **DANGER**
Hazard Statements:

- H302: Harmful if swallowed.
- H332: Harmful if inhaled.
- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H335: May cause respiratory irritation.
- H341: Suspected of causing genetic defects.
- H350: May cause cancer.

Precautionary Statements:

- P201: Obtain special instructions before use.
- P202: Do not handle until all safety precautions have been read and understood.
- P261: Avoid breathing dust.
- P264: Wash thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P280: Wear protective gloves, protective clothing, eye protection, and face protection.
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P330: Rinse mouth.
- P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312: Call a POISON CENTER or doctor if you feel unwell.
- P302+P352: IF ON SKIN: Wash with plenty of soap and water.
- P333+P313: If skin irritation or rash occurs: Get medical advice or attention.
- P362+P364: Take off contaminated clothing and wash it before reuse.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor.
- P403+P233: Store in a well-ventilated place. Keep container tightly closed.
- P405: Store locked up.
- P501: Dispose of contents/container in accordance with local, regional, national, and international regulations.

Pictograms:

Section 3: Composition/Information on Ingredients

CHEMICAL NAME	CAS NUMBER	% WEIGHT	CLASSIFICATION	
Paraformaldehyde 91%	30525-89-4	10-20%	Acute Tox 4 (O/Inh); Skin Sens 1; Eye Dam 1; STOT SE 3; Muta 2; Carc 1B	Trade Secret Information: Exact % of concentration is withheld to protect Trade Secret Information. Ranges are given in accordance with 29 CFR 1910.1200(i), Appendix E
Sawdust 20 Mesh Maple	—	23-33%	Carc 1A	
Other non-hazardous components	—	79-89%	not classified under GHS	

Section 4: First-Aid Measures

- **Inhalation:** Move to fresh air. Keep at rest. Get medical attention if symptoms develop or persist.
- **Skin/Eye Contact:** For skin, wash with soap and water. For eyes, rinse with water for at least 15 minutes. Remove contact lenses if easy to do. Get immediate medical attention.
- **Ingestion:** Rinse mouth. Do not induce vomiting. Get immediate medical attention.
- **Symptoms/Effects:** Eye damage, skin irritation or rash, coughing, throat irritation, breathing discomfort, and sensitization reactions.
- **Physician Notes:** Treat symptomatically. Monitor for respiratory irritation, sensitization, and systemic effects from paraformaldehyde exposure.

Section 5: Fire-fighting Measures

- **Suitable Extinguishing Media:** Water spray, dry chemical, foam, or carbon dioxide.
- **Unsuitable Extinguishing Media:** None known.
- **Special Hazards Arising from the Chemical:** Dust may create a nuisance condition. Combustible wood dust may form ignitable dust-air mixtures if finely dispersed. Paraformaldehyde may release irritating or toxic fumes during fire.
- **Advice for Firefighters:** Wear self-contained breathing apparatus and protective clothing. Avoid generating dust during cleanup.

Section 6: Accidental Release Measures

- **Personal Precautions:** Avoid breathing dust. Avoid contact with eyes and skin. Wear appropriate protective equipment.
- **Emergency Procedures:** Ventilate area as needed. Keep unnecessary personnel away from dusty conditions.
- **Methods and Materials for Containment:** Sweep, shovel, or vacuum spilled material into suitable containers. Avoid generating airborne dust.
- **Cleanup Procedures:** Collect material for disposal. Clean residual dust with methods that minimize dust generation.

Section 7: Handling and Storage

- **Safe Handling:** Avoid breathing dust. Avoid contact with eyes and skin. Use with adequate ventilation. Wash thoroughly after handling.
- **Hygiene Measures:** Do not eat, drink, or smoke when using this product. Wash hands after handling. Remove contaminated clothing before reuse.
- **Safe Storage:** Store in a dry, well-ventilated place in tightly closed containers. Protect from moisture, heat, and dust generation.
- **Incompatibilities:** Strong acids, strong oxidizing agents, and ignition sources.

Section 8: Exposure Controls/Personal Protection

- **Engineering Controls:** Use adequate general ventilation. Use local exhaust if dust is generated during handling. Provide eyewash facilities where dust exposure is possible.
- **Personal Protective Equipment (PPE):**
    - **Gloves**: Wear protective gloves if prolonged or repeated contact is expected.
    - **Eye/Face Protection:** Wear safety glasses with side shields or goggles if dust exposure is possible.

- **Respiratory Protection:** Not normally required under normal conditions of use. If dust is generated or ventilation is inadequate, use an approved dust respirator.
- **Skin/Body:** Wear protective clothing as needed to prevent repeated or prolonged contact.

- **Exposure Limits Table:**

Component	OSHA PEL	ACGIH TLV	NIOSH REL
Plaster of Paris / Calcium sulfate hemihydrate (26499-65-0)	15 mg/m3 total dust; 5 mg/m3 respirable fraction	10 mg/m3 inhalable particles	10 mg/m3 total dust; 5 mg/m3 respirable dust
Paraformaldehyde 91% (30525-89-4) *(as formaldehyde)*	0.75 ppm TWA; 2 ppm STEL	0.1 ppm TWA; 0.3 ppm STEL	0.016 ppm TWA; 0.1 ppm ceiling

Section 9: Physical and Chemical Properties

- **Appearance:** Solid; Off-white, flaky powder.
- **Odor:** Pungent formaldehyde-like odor.
- **Odor Threshold:** Detectable at low airborne concentration.
- **pH:** 6.27.
- **Melting Point/Freezing Point:** No sharp melting point; solid mixture may soften or decompose with heat.
- **Initial Boiling Point/Boiling Range:** Solid mixture; decomposition may occur before boiling.
- **Flash Point:** >210°F.
- **Evaporation Rate:** Low for solid mixture.
- **Flammability:** Combustible powder; formaldehyde vapors may be released with heat.
- **Upper/Lower Flammability or Explosive Limits:** LEL: 6%; UEL: 76%.
- **Vapor Pressure:** Low at room temperature; may release formaldehyde vapor.
- **Vapor Density:** >1; formaldehyde vapor is slightly heavier than air.
- **Relative Density/Specific Gravity:** Estimated ~0.6–1.2 g/mL bulk density.
- **Solubility(ies):** Slightly soluble; plaster base is sparingly soluble and paraformaldehyde slowly hydrolyzes.
- **Partition Coefficient: n-octanol/water:** Low to moderate; inorganic plaster remains insoluble, paraformaldehyde reacts/hydrolyzes in water.
- **Auto-ignition Temperature:** Estimated >570°F.
- **Decomposition Temperature:** May decompose with heat, releasing formaldehyde and carbon oxides.
- **Viscosity:** Solid powder.

Section 10: Stability and Reactivity

- **Reactivity:** No dangerous reaction expected under normal use. Dust may become an irritant hazard during handling.
- **Chemical Stability:** Stable under normal conditions. Keep dry. Product remains an off-white flaky powder under normal storage conditions.
- **Hazardous Reactions:** Hazardous polymerization will not occur.
- **Conditions to be Avoided:** Moisture, excess dust generation, heat, sparks, and open flame.
- **Incompatible Materials:** Strong acids and strong oxidizing agents.
- **Hazardous Decomposition:** Carbon monoxide, carbon dioxide, formaldehyde, and calcium oxide may form during fire or thermal decomposition.

Section 11: Toxicological Information

- **Likely Routes of Exposure:** Inhalation, skin contact, eye contact, and ingestion.
- **Chronic Effects:** Repeated dust exposure may cause eye, skin, or respiratory irritation. Repeated exposure may also present sensitization and carcinogenic risk.
- **Acute Toxicity (LD50 & LC50):**
  - **Paraformaldehyde:** Oral LD50 (rat) approximately 800 mg/kg; Inhalation LC50 (rat, 4 hr) approximately 1,070 mg/m3. Harmful if swallowed. Harmful if inhaled.
  - **Plaster of Paris / Calcium sulfate hemihydrate:** Low acute toxicity. Dust may irritate eyes and the respiratory tract.
  - **Maple sawdust / wood dust:** Low acute toxicity. Dust may irritate eyes, skin, and the respiratory tract.
- **Symptoms/Effect:** Eye damage, skin irritation or rash, coughing, throat irritation, breathing discomfort, and sensitization reactions.
- **Regulatory Listings:**
  - **NTP:** Wood dust is listed as known to be a human carcinogen.
  - **IARC:** Wood dust is classified as carcinogenic to humans.
  - **OSHA:** Wood dust carcinogenicity is recognized under OSHA HazCom guidance.

Section 12: Ecological Information

- **Ecotoxicity:** Harmful to aquatic life. Avoid release to drains, soil, and waterways.
- **Persistence/Degradability:** Formaldehyde released from paraformaldehyde is biodegradable. Wood solids degrade slowly over time.
- **Bioaccumulation Potential:** Formaldehyde has log Kow approximately 0.35 and BCF about 3. Significant bioaccumulation is not expected.
- **Mobility in Soil:** Formaldehyde is expected to be mobile in soil and water. Solid particles may remain in soil or move with runoff if dispersed.
- **Other Adverse Effects:** Dust release may contaminate soil or water and should be minimized.

Section 13: Disposal Considerations

- Dispose of in accordance with federal, state, and local regulations.
- Empty containers must not be reused or recycled. Dispose of bottles and residual product in accordance with regulations.
- **Recommended Methods:** Incineration or chemical waste landfill.

Section 14: Transport Information

DOT (Ground Transport): Not regulated
IMDG (Ocean Transport): Not regulated
IATA (Air Transport): Not regulated

Section 15: Regulatory Information

TSCA List: Calcium sulfate, paraformaldehyde, and listed components are subject to TSCA requirements for commercial chemical use.
EPCRA – Emergency Planning & Community Right-to-Know: Paraformaldehyde is regulated under EPCRA/CERCLA reporting programs.
CERCLA Reportable Quantity: Paraformaldehyde has a CERCLA RQ of 100 lb; product-level release reporting depends on the amount released.
SARA 302: No Section 302 Extremely Hazardous Substance is present.
SARA 304 Extremely Hazardous Substances Reportable Quantity: No Section 304 EHS RQ applies.
SARA 311/312: Acute toxicity; skin/eye irritation; respiratory sensitization; carcinogenicity; specific target organ toxicity.
SARA 313: Paraformaldehyde/formaldehyde reporting may apply when facility thresholds are met.
California Prop 65: Formaldehyde gas released from paraformaldehyde is listed for cancer.
US State Regulations: Paraformaldehyde/formaldehyde may appear on state right-to-know lists, including Massachusetts, New Jersey, Pennsylvania, and Rhode Island.
Other Regulations: Regulated under OSHA Hazard Communication, TSCA, EPCRA, CERCLA, and applicable state chemical reporting requirements.

Section 16: Other Information

Regulatory Compliance Verification:
This Safety Data Sheet has been prepared in accordance with and verified for compliance with:

- OSHA Hazard Communication Standard (29 CFR 1910.1200, HazCom 2023)
- Globally Harmonized System (GHS) Revision 11
- U.S. TSCA, EPCRA, CERCLA
- California Proposition 65
- Canadian WHMIS 2022 (GHS-aligned)
- EU REACH Regulation

All hazard classifications, labeling elements, and regulatory disclosures are based solely on the specific formula composition and chemical properties provided for this product.

Hazardous Material Information System III (USA)

Health:	3
Flammability:	1
Physical Hazards:	0
Personal Protection:	J

National Fire Protection Association (USA)

Health:	3
Flammability:	1
Instability:	0
Special:	-

HMIS ratings are based on a 0-4 scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS ratings are not required on Safety Data Sheets under 29 CFT 1910.1200, the preparer may choose to provide them. HMIS ratings are to be used with a fully implemented HMIS program. HMIS is a registered mark of the National Paint & Coatings Association (NPCA).

Prepared by:	**Pierce Companies Regulatory Department**
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Notice: *The information in this SDS is believed to be accurate and reliable at the time of preparation, but no guarantee is made that it is complete or that the hazards listed are the only hazards present. Users are responsible for determining the suitability of the product for their intended use, complying with all applicable laws and safety requirements, and considering the effects of use with other materials. Pierce makes no express or implied warranty regarding the product, its merchantability, fitness for a particular purpose, or the accuracy of this information, except that the product will conform to Pierce's specifications. Possession of this SDS does not indicate that the holder purchased or used the product.*