MATERIAL SAFETY DATA SHEET

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PRODUCT NAME: WHITE, WATER BASED LAGGING ADHESIVE HMIS CODES: H F R P

PRODUCT CODE: DP 3050 AF 1 0 0 B

MANUFACTURERS' NAME: DESIGN POLYMERICS

ADDRESS: 11609 MARTENS RIVER CIRCLE FOUNTAIN VALLEY, CA 92708

EMERGENCY PHONE: Chem-Tel: (800) 255-3924 (24 Hrs) BUSINESS HOURS: 7:30am – 4:30pm PT

INFORMATION PHONE: (714) 432-0600 REVISION DATE: March 11, 2011

REVISION #: 4.1

PREPARED BY: Technical Dept. Supersedes all previous

======== SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION =============

REPORTABLE COMPONENTSCAS NUMBERVAPOR PRESSURE mm Hg @ TEMPWEIGHT PERCENT* Barium Metaborate Mononydrate13701-59-2N/AN/A5-10 %

TLV/TWA: 0.5 mg/m³
* Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of

1986 and 40 CFR 372.

INHALATION HEALTH PISKS AND SYMPTOMS OF EXPOSURE: Adverse health effects from vapors or spray mixts in poorly

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Adverse health effects from vapors or spray mists in poorly ventilated areas may include irritation of the mucous membranes of the nose, throat, and respiratory tract and symptoms of headache and nausea.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: EYES: In direct contact, may cause irritation. SKIN: Prolonged and repeated contact with product may cause skin irritation.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Redness, drying of the skin, or other signs of irritation or contact dermatitis.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

HEALTH HAZARDS (ACUTE AND CHRONIC): ACUTE: May cause irritation to skin and eyes, gastrointestinal irritation, nausea, and vomiting. CHRONIC: Prolonged or repeated exposure above TLV may result in permanent brain and nervous system damage.

CARCINOGENICITY: NTP CARCINOGEN: No IARC MONOGRAPHS: No OSHA REGULATED: No

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: May be aggravating to some skin and respiratory conditions, and to pre-existing liver and/or kidney disorders.

INHALATION: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, administer artificial respiration. Contact physician or emergency medical facility immediately.

SKIN: Remove contaminated clothing and shoes. Wash exposed area thoroughly with soap and water for at least 15 minutes. Do not rub affected area. If irritation persists, get medical attention. Skin reaction may take 24 to 48 hours to develop. Wash contaminated clothing before reuse.

EYES: Immediately flush eyes with large amounts of water for at least 15 minutes while frequently lifting the upper and lower eyelids. If irritation persists, call a physician.

INGESTION: Do not induce vomiting. Contact physician or emergency medical facility immediately. Never give anything by mouth to an unconscious person.

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FLASH POINT: Not Applicable METHOD USED: Not Applicable

FLAMMABLE LIMITS IN AIR BY VOLUME – LOWER: N/A UPPER: N/A

EXTINGUISHING MEDIA: The product will only burn after the water it contains is driven off. For dried film use water, foam, carbon dioxide or dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: When dried polymer burns, carbon dioxide (CO₂), carbon monoxide (CO), hydrogen chloride gas (HCl), and smoke are produced. Firefighters should wear self-contained breathing apparatus, especially in enclosed areas. Cool containers and minimize vapors with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers exposed to high temperatures may explode or burst due to build-up of steam pressure.

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike, contain, or absorb with inert absorbent material. Prevent spill from entering sewers, drains, streams, waterways, or other bodies of water.

WASTE DISPOSAL METHOD: Dispose of in accordance with all local, state and federal regulations.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: **DO NOT ALLOW TO FREEZE.** Store in a cool dry location away from heat. Keep containers tightly closed and store with adequate ventilation.

OTHER PRECAUTIONS: DO NOT TAKE INTERNALLY. Avoid unnecessary, prolonged, or repeated contact with this and any other chemical. KEEP OUT OF REACH OF CHILDREN.

RESPIRATORY PROTECTION: Not required under normal conditions. Provide sufficient ventilation to maintain constant fresh air in workspace. If TLV is exceeded, use NIOSH/MSHA approved organic vapor and mist, supplied air, or self-contained breathing apparatus. Avoid breathing sanding dust.

VENTILATION: Use adequate mechanical (general and/or local) ventilation to maintain exposure below TLV.

SKIN PROTECTION (PROTECTIVE GLOVES): Wear resistant gloves such as polyethylene.

EYE PROTECTION: Use chemical splash goggles or OSHA permitted safety glasses.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear impervious clothing. Eye wash station.

WORK / HYGENIC PRACTICES: Source of clean water should be available for flushing eyes and washing skin. Wash thoroughly after handling any chemicals, especially before eating, drinking, or smoking. Remove and launder contaminated clothing before reuse.

============ SECTION IX - PHYSICAL / CHEMICAL CHARACTERISTICS ==================

PHYSICAL FORM: Mobile Liquid

ODOR: Mild, sweet

SOLUBILITY IN WATER: Miscible

BOILING POINT: 212°F FREEZING POINT: 32° F (0° C) COATING V.O.C.: 23 g/l COLOR: White pH: 8.0-9.5

SPECIFIC GRAVITY (H₂O=1): 1.3-1.4 % VOLATILES BY WEIGHT: 40-50 VISCOSITY (cps): approx. 45,000-75,000

VISCOSITY (cps): approx. 45,000-75,000

STABILITY: Stable at ambient temperatures.

CONDITIONS TO AVOID: Coagulation may occur after freezing, thawing, or boiling.

INCOMPATIBILITY (MATERIALS TO AVOID): Metal salts, mineral acids (i.e. sulfuric, phosphoric, etc.) Strong oxidizing agents. Strong reducing agents.

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HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials on thermal decomposition including Carbon monoxide (CO), Carbon dioxide (CO₂), and various hydrocarbons. Contact with strongly acidic aqueous systems can release solubilized barium salts, which are highly toxic. Under fire conditions, this product will release hydrogen chloride gas.

WORKPLACE CLASSIFICATIONS:

This product is considered non-hazardous under the OSHA Hazard Communication Standard 29 CFR 1910.1200.

This material is not a 'controlled product' under the Canadian Workplace Hazardous Materials Information System (WHMIS).

TRANSPORTATION CLASSIFICATIONS:

U.S. DOT HAZARD CLASS: Non-Regulated.

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW (SARA TITLE III):

Section 302 Categorizations - Extremely Hazardous Substances List: No components of this product are listed.

Section 311/312 Categorizations (40 CFR 370): Immediate (Acute) Health Hazard.

Section 313 Information (40 CFR 372) – Toxic Chemicals List: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR 372:

ComponentCAS#% by WeightBarium metaborate monohydrate13701-59-25-10%

Toxic Substances Control Act (TSCA): All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

CERCLA INFORMATION (40cfr 302.4): Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or to state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

STATE / LOCAL REGULATIONS:

CALIFORNIA PROPOSITION 65 (Safe Drinking Water and Toxic Enforcement Act of 1986): None listed.

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