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SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
PARKELL PRODUCTS INC.

 155 Schmitt Blvd.
 Farmingdale, NY 11735

 Company Telephone Number: (631) 249-1134
 24-Hour Emergency Phone: InfoTrac 1-800-535-5053
PRODUCT NAME: BRUSH & BOND LIQUID

MSDS NO: S285
SECTION 2 – COMPOSITION INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS NUMBER	PEL	TLV	%
Methyl Methacrylate (MMA)	80-62-6			
4-methacryloxyethyltrimellitic Acid Anhydride (4META)	70293-55-9			
Tris(2-hydroxyethyl)-Isocyanurat-Triacrylate (THIT)	40220-08-4			
2-hydroxyethyl Methacrylate (HEMA)	868-77-9			
Acetone	67-64-1			

SECTION 3 – HAZARDS IDENTIFICATION
EMERGENCY OVERVIEW: Highly flammable (F), irritant (Xi) liquid. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact. Heating, sunlight may cause explosive polymerization.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation and possible corneal injury.
SKIN: May cause irritation, redness. Persons with known sensitivity to methacrylate may show allergic contact dermatitis.
INHALATION: Inhalation of high concentration may cause central nervous system effects characterized by headache, dizziness, unconsciousness and coma. May cause respiratory tract irritation.
INGESTION: May cause irritation of the digestive tract. May cause central nervous system depression. Symptoms may include: headache, excitement, fatigue, nausea, vomiting, stupor, and coma. May cause nausea, vomiting.
CHRONIC EFFECTS: Repeated or prolonged contact may cause skin sensitization. Prolonged or repeated inhalation may cause kidney and lung damage. The substance may have effects on the nervous system.

SIGNS & SYMPTOMS:
CARCINOGENECITY: No ACGIH? No IARC MONOGRAPHS? NA OSHA?

SECTION 4 – FIRST-AID MEASURES

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
EYES: Immediately flush with flowing water for at least 15 minutes. Get medical attention.
SKIN: Wash with soap and plenty of water. Get medical attention if irritation develops or persists.
INGESTION: Promptly drink several glasses of water or milk to dilute. Get medical attention.
NOTE TO PHYSICIANS:

SECTION 5 – FIRE-FIGHTING MEASURES

FLASH POINT (TCC): -18°C (acetone) **FLAMMABLE LIMIT (air, % by vol.) (acetone)** UPPER: 2 vol% LOWER: 13 vol%
FLAMMABILITY CLASSIFICATION (CFR 1910.1200): Highly flammable
EXTINGUISHING MEDIA: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam.
FIRE FIGHTING INSTRUCTIONS: During emergency conditions, over-exposure to thermal decomposition products may cause health hazard. Self-contained breathing apparatus should be worn.
UNUSUAL FIRE & EXPLOSION HAZARDS:
HAZARDOUS COMBUSTION PRODUCTS: Toxic gasses such as carbon monoxide may be released in a fire.
AUTOIGNITION TEMPERATURE: 420°C (MMA)

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTION: For skin protection wear impervious protective gloves and clothing. For eye protection use safety goggles or a full-face shield.
ENVIRONMENTAL PRECAUTIONS: May be hazardous to the environment. Special attention should be given to water.
METHODS FOR CLEANING-UP: In case material is released or spilled, remove all ignition sources, and ventilate the area of leak or spill. Collect spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place. Do NOT wash away into sewer.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Observe normal warehouse handling procedures. Protect against physical damages. Use in a well-ventilated place away from all ignition sources.
STORAGE: Store in a cool (between 5°C and 30°C), dry and dark place, but do NOT freeze. Store away from direct sunlight. Keep

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away from sources of ignition. Do NOT store under pure nitrogen or oxygen-free gas. Take precautionary measures against static discharge.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Use general and/or local exhaust to keep exposures to a minimum. Eye wash station near work area.
EYE/FACE PROTECTION: Use safety glasses.
SKIN PROTECTION: Use impervious protective gloves to prevent skin contact.
RESPIRATORY PROTECTION: None required during ordinary use of this product. If the exposure limit is exceeded a vapor respirator should be worn.
EXPOSURE GUIDELINES: (acetone) OSHA PEL 1,000 ppm (TWA), ACGIH TLV 500 ppm (TWA) (MMA) OSHA PEL 100 ppm (TWA), ACGIH TLV 100 ppm (TWA)

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Translucent liquid, Fragrant, mint-like.
BOILING POINT: 56°C (acetone) **SPECIFIC GRAVITY (H₂O = 1):** approx. 1
VAPOR PRESSURE: mm HG @ °F **PERCENT VOLATILES:**
VAPOR DENSITY (Air = 1): Not known **EVAPORATION RATE (Butyl Acetate = 1):**
SOLUBILITY IN WATER: Not known **PH:** 1.9

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Polymerization may be caused by elevated temperature, oxidizers or light.
HAZARDOUS POLYMERIZATION: May occur. (see "Stability")
CONDITIONS TO AVOID: Heat beyond 30°C, low temperature below 5°C, high humidity, direct sunlight and ignition sources.
INCOMPATIBILITY (Materials to avoid): Polymerization initiator such as peroxide, persulfate, amine, light, strong acids, oxidizing agents, chloroform, alkalis.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide and carbon monoxide may form when heated to decomposition.

SECTION 11 – TOXICOLOGICAL INFORMATION
SECTION 12 – ECOLOGICAL INFORMATION

GENERAL: This substance may be hazardous to the environment; special attention should be given to water.
MOBILITY: When released, this substance is expected to quickly evaporate or may leach into groundwater.
DEGRADABILITY: Degradable to a moderate extent.
ACCUMULATION: Not expected to significantly bioaccumulate.

SECTION 13 – DISPOSABLE CONSIDERATIONS

DANGER IN DISPOSAL: Should be handled as hazardous waste.
DISPOSAL METHOD: (Consult federal, state, and local regulations): Do not empty into sewer. This substance should be handled as hazardous waste and sent to an approved incinerator.

SECTION 14 – TRANSPORT INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)

PROPER SHIPPING NAME: Methyl Methacrylate Monomer, Inhibited
DOT HAZARD LABEL: Flammable Liquid **UN/NA NUMBER:** UN-1247
IMDG: Class 3, PG II
ICAO/IATA: Class 3, PG II

SECTION 15 – REGULATORY INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)
SECTION 16 – OTHER INFORMATION

NFPA CODES: HEALTH - FLAMMABILITY - REACTIVITY -
WORK/HYGIENIC PRACTICES: Wash hands before eating, drinking or smoking.
DATE PREPARED: 11/26/02 **PREPARED BY:** R. Burke

To the best of our knowledge, the information on this MSDS sheet is accurate. However, the information is provided without any warranty, expressed or implied, regarding its correctness or completeness. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This information is not warranted to be whether originating with the company or not.

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SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PARKELL PRODUCTS INC.
 155 Schmitt Blvd.
 Farmingdale, NY 11735
PRODUCT NAME: BRUSH & BOND BRUSHES

Company Telephone Number: (631) 249-1134
24-Hour Emergency Phone: InfoTrac 1-800-535-5053

MSDS NO: S286

SECTION 2 – COMPOSITION INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS NUMBER	PEL	TLV	%
Nylon tuft	----	----	----	
sodium p-toluenesulfinate (p-TSNa)	824-79-3	----	----	
sodium N-phenylglycinate (NPG-Na)	10265-69-7	----	----	

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Combustible solid.

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation and possible corneal injury.

SKIN: May cause irritation, redness.

INHALATION: No hazard in ordinary use.

INGESTION: May cause irritation of the digestive tract.

CHRONIC EFFECTS: Not known.

SIGNS & SYMPTOMS:

CARCINOGENICITY: No NTP? No IARC MONOGRAPHS? OSHA?

SECTION 4 – FIRST-AID MEASURES

INHALATION: No specific treatment is necessary by inhalation of a small amount. If exposed to excessive levels of dust, remove to fresh air and get medical attention if cough or other symptoms develop. If breathing is difficult, give oxygen and get medical attention.

EYES: Immediately flush with flowing water for at least 15 minutes. Get medical attention.

SKIN: Flush with soap and plenty of water. Get medical attention if irritation develops or persists.

INGESTION: Promptly drink several glasses of water or milk to dilute. Get medical attention.

NOTE TO PHYSICIANS:

SECTION 5 – FIRE-FIGHTING MEASURES

FLASH POINT (TCC): >250°C **FLAMMABLE LIMIT (air, % by vol.)** UPPER: NE LOWER: NE

FLAMMABILITY CLASSIFICATION (CFR 1910.1200): Combustible. Concentration of the dust may be explosive.

EXTINGUISHING MEDIA: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam.

FIRE FIGHTING INSTRUCTIONS: During emergency conditions, over-exposure to thermal decomposition products may cause health hazard. Self-contained breathing apparatus should be worn.

UNUSUAL FIRE & EXPLOSION HAZARDS: Combustible. Concentration of the dust may be explosive.

HAZARDOUS COMBUSTION PRODUCTS: Toxic gasses such as carbon monoxide, oxides of nitrogen, hydrogen cyanide, acrylonitrile, acetaldehyde or sulfur oxide may be released in a fire.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTION: For skin protection wear impervious protective gloves. For eye protection use safety goggles.

ENVIRONMENTAL PRECAUTIONS: Not known.

METHODS FOR CLEAN-UP: In case material is released or spilled, sweep up and place spill in a chemical waste container. Flush spill area with water.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Observe normal warehouse handling procedures. Protect against physical damages. Use in a ventilated place. Wash hands thoroughly after handling.

STORAGE: Keep tightly closed. Store in a cool, dry and dark place, preferably in a refrigerator. Store away from direct sunlight. Keep away from sources of ignition.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: General and/or local ventilation should be sufficient. Eye wash station near work area.

EYE/FACE PROTECTION: Use safety glasses.

SKIN PROTECTION: Use impervious protective gloves to prevent skin contact.

RESPIRATORY PROTECTION: None required during ordinary use of this product.

EXPOSURE GUIDELINES: Not known.

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SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: White solid coated on brush tuft. No odor.

BOILING POINT: N/A **SPECIFIC GRAVITY (H₂O = 1):** N/A

VAPOR PRESSURE: N/A **PERCENT VOLATILES:** N/A

VAPOR DENSITY (Air = 1): N/A **EVAPORATION RATE (Butyl Acetate = 1):** N/A

SOLUBILITY IN WATER: N/A **PH:** N/A

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Hygroscopic. **HAZARDOUS POLYMERIZATION:** Will not occur.

CONDITIONS TO AVOID: High temperature (above 30°C), high humidity, direct sunlight and ignition sources.

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: The gases listed in 5.5 above may form when heated to decomposition.

SECTION 11 – TOXICOLOGICAL INFORMATION

HEALTH HAZARDS (immediate, delayed, acute, and chronic): Contact with eyes and skin may cause irritation.

TOXICITY: (p-TSNa): LDLo (Oral/rat): 3,200 mg/kg
 (NPG-Na) Not known

SECTION 12 – ECOLOGICAL INFORMATION

This material is not expected to be significantly hazardous to the environment.

SECTION 13 – DISPOSABLE CONSIDERATIONS

Danger in disposal: Should be handled as hazardous waste. Disposal method: Incinerate in accordance with all applicable environmental control regulations, or landfill in an industrial landfill which has approval to receive such wastes. Waste must be disposed of in accordance with federal, state, and local environmental control regulations.

SECTION 14 – TRANSPORT INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)

Precautions for transport: Observe normal care for transportation of sophisticated health care materials. Cover from rain, direct sunlight, heat and contaminating materials.

UN: -----

IMDG: -----

ICAO/IATA: -----

SECTION 15 – REGULATORY INFORMATION (NOT MEANT TO BE ALL-INCLUSIVE)

SECTION 16 – OTHER INFORMATION

NFPA CODES: HEALTH - FLAMMABILITY - REACTIVITY -

WORK/HYGIENIC PRACTICES: Wash hands before eating, drinking or smoking.

DATE PREPARED: 11/26/02 **PREPARED BY:** R. Burke

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