

**MATERIAL SAFETY DATA SHEET
PLIO GRIP STRUCTURAL ADHESIVES
040912**

PRODUCTS COVERED: 7770/220, 7770B/220, 7773B/220, 7779B/220

SECTION I-DISTRIBUTOR & MANUFACTURER

DISTRIBUTED BY:

Crest Industries, Inc., 1337 King Road, Trenton, MI 48183 **Phone:** (734) 479-4141 **FAX:** (734) 479-4040

MANUFACTURED BY: ASHLAND SPECIALTY CHEMICAL COMPANY, P.O. BOX 2219, COLUMBUS, OHIO 43216

24 HOUR EMERGENCY TELEPHONE: 1-800-ASHLAND

SECTION II-PRODUCTS

Stock Number	Product Name on Label	Numbers of Ingredients in Products	HMIS RATING			Appearance and Odor	Solubility % in Water	Volatile Volume %
			H	F	R			
7770/220	PLIO GRIP Structural Adhesive	1,2,3,4,5	2*	1	1	Green viscous liquid, no odor	NA	<1
7770B/220	PLIO GRIP Structural Adhesive	1,2,3,4,5	2*	1	1	Black viscous liquid, no odor	NA	<1
7773B/220	PLIO GRIP Structural Adhesive	1,2,3,4,5	2*	1	1	Black viscous liquid, no odor	NA	<1
7779B/220	PLIO GRIP Structural Adhesive	1,2,3,4,5	2*	1	1	Black viscous liquid, no odor	NA	<1

*Chronic health effects are possible. See **SECTION VI-HEALTH HAZARD DATA** below.

SECTION III-HAZARDOUS INGREDIENTS

Ingredients	CAS Number	Exposure Limits*
		in ppm (parts per million)
1. Amorphous Silica	112945-52-5	10 A, 15 O mg/m ³ dust
2. Clay	71011-26-2	10 A, 15 O mg/m ³ dust
3. Methylene Phenylene Isocyanate	101-68-8	0.005 A, 0.02 O (C)
4. Modified Methylene Phenylene Isocyanate	39310-05-9	0.005 A, 0.02 O (C)
5. Talc	14807-96-6	2 A, 3 O mg/m ³ dust

*A means ACGIH TLV, C means Ceiling, O means OSHA PEL. Other abbreviations: NA means Not Applicable, NE means Not Established, > means greater than, < means less than.

SECTION IV-PHYSICAL DATA

Evaporation Rate: (n-Butyl Acetate = 1) <1. **Vapor Pressure (mm Hg @ 20°C):** <1. **Vapor Density:** >1. **Solubility in Water (Wt %):** <1. **Volatile Volume %:** <1%. **Boiling Point:** > 392°F (200°C) **Product Density (water=1):** > 1.

SECTION V-FIRE AND EXPLOSION DATA

Flammability Class: Non-flammable
Flash Point (SETA Closed Cup Method): >200°F (>93.3°C)
Approximate Flammable Limits: NA
Autoignition Temperature: NA
Extinguishing Media: Foam, carbon dioxide, dry chemical
Special Fire Fighting Procedures: Full protective equipment, including self-contained breathing apparatus, is recommended. During a fire Isocyanate and Polyisocyanate vapors and highly toxic gasses may be generated by combustion or thermal decomposition. Water from fog nozzles may be used to cool closed containers to prevent pressure build-up.

Unusual Fire and Explosion Hazards: At elevated temperatures [130°F (54°C) or over] containers may leak or rupture.

SECTION VI-HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, Skin contact, Eye contact.

SIGNS AND SYMPTOMS OF EXPOSURE:

INHALATION:

Acute Exposure: Vapors at concentrations above the TLV can irritate the respiratory tract (nose, throat, lungs) causing a burning sensation, runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing obstruction). Similar symptoms at vapors of much lower concentration may be caused in persons especially sensitive and those with asthma. Asthma attack may also be triggered.

Chronic Exposure: Some individuals, from repeated overexposure, will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanates at levels well below the TLV. These symptoms, including chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be immediate or delayed up to several hours after exposure. Sensitized individuals can experience these symptoms upon exposure to dust, cold air or other irritants for weeks or even several years in severe cases. Chronic overexposure can cause lung damage, including decrease in lung function, which may be

permanent. Sensitization may be either temporary or permanent. **NOTE:** Under normal use conditions the small amounts of volatile materials contained in individual packages of these products present very limited inhalation hazard when used with normal shop ventilation.

SKIN CONTACT:

Acute Exposure: Isocyanates react with skin protein and moisture and can cause skin irritation resulting in reddening, swelling, rash, scaling or blistering. Some persons may develop skin sensitization. Cured material is difficult to remove. Skin irritation may develop into contact dermatitis.

Chronic Exposure: Prolonged contact can cause reddening, swelling, rash, scaling or blistering or sensitization. In sensitized persons these symptoms may occur as a result of contact with very small amounts of product or even exposure to vapors.

EYE CONTACT:

Acute Exposure: These products are mildly to moderately irritating and can cause tearing, reddening and swelling accompanied by pain and perhaps a feeling as of fine dust in the eyes. Sensitization may occur.

Chronic Exposure: As in acute exposure but to a lesser degree. Sensitization may occur.

INGESTION:

Acute Exposure: Mildly to moderately irritating to the mouth and, if swallowed, to the esophagus, stomach and intestinal tract. Swallowing may cause nausea, vomiting and diarrhea. Sensitization may occur.

Chronic Exposure: Sensitization may occur.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Asthma and other respiratory disorders (bronchitis, emphysema, hyperreactivity), eye diseases, skin allergies, eczema.

CARCINOGENICITY: Products are not listed by NTP, IARC or OSHA. IARC has determined that **5. Talc** may contain small but detectable amounts of Crystalline Silica (Quartz) which if inhaled can cause cancer of the lungs. Under normal use conditions the Crystalline Silica is not free to be inhaled as dust. If the cured sealants are sanded, inhalation of the sanding dust must be avoided. **WEAR A DUST MASK WHEN SANDING**

THESE MATERIALS.

SECTION VII-EMERGENCY and FIRST AID PROCEDURES

INHALATION: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention. Asthmatic type symptoms may develop immediately or be delayed up to several hours. Treatment is essentially symptomatic. Consult a physician.

EYE CONTACT: Flush with clean, lukewarm water (low pressure) for at least 15 minutes while lifting eyelids. Refer person to physician for immediate attention.

SKIN CONTACT: Remove contaminated clothing immediately. Wash affected areas thoroughly with soap (green tincture soap is recommended) and water. Wash contaminated clothing thoroughly before reuse. For severe exposure get medical attention. For lesser exposure seek medical attention if irritation develops or persists.

INGESTION: Give 2 cups of water to drink and immediately induce vomiting by either giving syrup of ipecac or placing a finger at the back of the throat. **DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON!** Consult physician, hospital emergency room or poison control center immediately. Have list of ingredients available.

SECTION VIII-EMPLOYEE PROTECTION RECOMMENDATIONS

Precautions must be taken so that persons handling these products do not breathe the vapors or contact the skin or eyes with vapors or the uncured products.

EYE PROTECTION: Wear safety glasses.

SKIN PROTECTION: Wear resistant gloves such as rubber or vinyl. Cover as much of the skin as possible with appropriate clothing. If skin creams are used, keep the area protected by the cream to a minimum.

VENTILATION AND RESPIRATORY PROTECTION: Due to the small amount of vapors emitted (much less than 1 percent of the total product weight) respiratory protection is not normally necessary unless proper ventilation is impossible or large amounts of the material are used or spilled. If exhaust ventilation sufficient to keep the airborne concentrations of vapors below their respective TLVs is not possible, a respirator that is approved for use in isocyanate containing areas (air purifying or fresh air supplying) may be necessary. Always wear a dust mask when sanding the products to protect against Crystalline Silica (Quartz) dust. Observe OSHA regulations (29 CFR 1910.134) for respirator use.

OTHER PROTECTIVE MEASURES: Eyewash stations should be available. Educate and train employees in safe use of the products. Follow all label instructions. **NOTE:** Persons with asthmatic type conditions, chronic bronchitis, other chronic respiratory diseases or recurrent skin eczema or sensitization should be excluded from working with isocyanates. Once a person is diagnosed as sensitized to an isocyanate, no further exposure can be permitted.

SECTION IX-REACTIVITY DATA

STABILITY OF PRODUCTS: Stable under normal room conditions. **HAZARDOUS POLYMERIZATION OF PRODUCTS:** Can

KEEP OUT OF THE REACH OF CHILDREN!

SECTION XII-FEDERAL EPA REGULATION COMPLIANCE INFORMATION-EMERGENCY PLANNING and COMMUNITY RIGHT-TO-KNOW ACT of 1986

1) Section 313 Supplier Notification: Chemicals marked with an * in the following table are subject to the Toxic Chemical Release Inventory Reporting Requirements using **EPA FORM R** (40 CFR Part 372).

2) Section 312: All the chemicals listed are subject to Emergency and Hazardous Chemical Inventory Forms and Community Right-to-Know Reporting Requirements: Tier I and Tier II Reports (40 CFR Part 370).

NOTE: This information **must** be included in all MSDSs that are copied and distributed for materials covered by this MSDS.

HAZARDOUS INGREDIENTS IN PLIO GRIP STRUCTURAL ADHESIVES-APPROXIMATE PERCENTAGES BY WEIGHT

Ingredients	CAS Number	7770	7770B	7773B	7779B
1. Amorphous Silica	112945-52-5	2-6	2-6	2-6	2-6
2. Clay	71011-26-2	1-5	1-5	1-5	1-5
3. Methylene Phenylene Isocyanate	101-68-8	0.1-2	0.1-2	0.1-2	0.1-2
4. Modified Methylene Phenylene Isocyanate	39310-05-9	30-50	30-50	30-50	30-50
5. Talc	14807-96-6	8-12	8-12	8-12	8-12
Physical Hazard-Fire	NOT A HAZARD FOR THESE PRODUCTS				
Physical Hazard-Pressure Release	NOT A HAZARD FOR THESE PRODUCTS				
Health Hazard-Acute	-----100 PERCENT-----				
Health Hazard-Chronic	-----100 PERCENT-----				
Physical Hazard-Reactivity	-----100 PERCENT-----				

SECTION XIII-VOLATILE ORGANIC COMPOUND (V.O.C.) CONTENT ACCORDING TO THE FEDERAL EPA

All materials contain less than 1 % VOCs

SECTION XIV-CALIFORNIA PROPOSITION 65 WARNINGS

According to the California Safe Drinking Water and Toxic Enforcement Act (PROPOSITION 65) "No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the State of California to cause

occur. **CONDITIONS TO AVOID:** Excessive heat. **INCOMPATIBILITY (Materials to Avoid):** Ammonia, amines, strong acids, strong alkalis, surface active materials (detergents) and water.

HAZARDOUS DECOMPOSITION PRODUCTS: By high heat and fire: carbon dioxide, carbon monoxide, oxides of nitrogen, hydrogen cyanide, isocyanate containing compounds, hydrocarbon vapors, smoke.

SECTION X-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Put on protective equipment including respiratory protection. Prevent further spillage. Evacuate nonessential personnel. Ventilate the area. Keep spill from reaching sewers and waterways. Pour decontamination solution consisting of aqueous solution of ammonia over the spill area and allow reacting for at least 10 minutes. Cover the spill with sawdust, vermiculite, Fuller's Earth or other absorbent material. Collect material and put into containers.

WASTE DISPOSAL METHOD: Follow all federal, state and local environmental control regulations. Incineration of the liquid material is the preferred method. Cured material may be put into regular trash.

RCRA STATUS: Since this product is toxic it is hazardous when discarded.

SECTION XI-SPECIAL PRECAUTIONS & STORAGE DATA

STORAGE TEMPERATURE:

MINIMUM / MAXIMUM: 50°F (10°C) / 120°F (49°C)

RECOMMENDED SHELF LIFE: Unopened Container [Stored at temperature below 95°F (35°C)]: One year

PRECAUTIONS TO BE TAKEN IN HANDLING, STORAGE AND USE: Do not store in temperatures above 120°F (49°C) or in direct sunlight. Do not store above 95°F (35°C) for maximum shelf life. At maximum storage temperature, material may slowly polymerize without hazard. Do not inhale vapors. Avoid contact with skin and eyes. Wash hands after use and before eating, drinking, smoking or using the toilet. Employee education and training in the safe use and handling of this material are required under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

KEEP OUT OF THE REACH OF CHILDREN!

cancer, birth defects or reproductive toxicity without first giving clear and reasonable warning to such individuals of such an exposure". **The following warning applies to all three products:** **WARNING:** This product contains Crystalline Silica (Quartz) Dust, a chemical known to the State of California to cause cancer.

SECTION XV-OZONE DEPLETION IN THE UPPER ATMOSPHERE

None of the products on this MSDS contains upper atmosphere ozone-depleting substances.

DISCLAIMER: The information contained in this MSDS is believed to be accurate and reliable as of the date indicated. **Crest Industries, Inc.** assumes no legal responsibility and makes no representation, warranty or guarantee, expressed or implied, as to the completeness or accuracy of the information. It is offered solely for your consideration, investigation and verification. The user is ultimately responsible for the safe use of the material in accordance with applicable federal, state, provincial and local laws and regulations.