

MATERIAL SAFETY DATA SHEET
URETHANE, SPRAY SEAM & URE-SEAM PLUS SEALANTS
6/23/05

PRODUCTS COVERED: CH-V, CS-F, CS-BL, CS-GR, CU-P, CU-PB, CU-PW, SU-P

SECTION I-MANUFACTURER

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24 HOUR EMERGENCY TELEPHONE (CHEMTEL): (800) 255-3924 **INTERNATIONAL CALLS:** (813) 248-0585

SECTION II-PRODUCTS

| <u>Stock Number</u> | <u>Product Name on Label</u> | <u>Hazardous Ingredients in Products*</u> | <u>HMIS RATING</u> | | | <u>Appearance and Odor</u> | <u>Volatile Volume%</u> |
|---------------------|-------------------------------------|---|--------------------|----------|----------|----------------------------|-------------------------|
| | | | <u>H</u> | <u>F</u> | <u>R</u> | | |
| CH-V | HY-VIS Urethane Windshield Adhesive | 2,5,10,13,17 | 3 | 2 | 0 | Black paste, mild solvent | 5-10 |
| CS-F | Fast Set Urethane | 1,2,3,4,12,14,17,18 | 3 | 2 | 0 | Black paste, mild solvent | 5-10 |
| CS-BL | Spray Seam Sprayable Seam Sealer | 1,2,6,9,15,16 | 1 | 1 | 0 | Black paste, mild solvent | 5-10 |
| CS-GR | Spray Seam Sprayable Seam Sealer | 1,2,6,9,15,16 | 1 | 1 | 0 | Gray paste, mild solvent | 5-10 |
| CU-P | Ure-Seam Plus Urethane Seam Sealer | 1,2,8,11,15,16,18,19 | 2 | 3 | 0 | Gray paste, mild solvent | 5-10 |
| CU-PB | Ure-Seam Plus Urethane Seam Sealer | 1,2,8,11,15,16,18,19 | 2 | 3 | 0 | Black paste, mild solvent | 5-10 |
| CU-PW | Ure-Seam Plus Urethane Seam Sealer | 1,8,11,15,16,18,19 | 2 | 3 | 0 | White paste, mild solvent | 5-10 |
| SU-P | Ure-Seam Plus Urethane Seam Sealer | 1,2,8,11,15,16,18,19 | 2 | 3 | 0 | Gray paste, mild solvent | 5-10 |

*Chronic health effects may occur from the solvents and calcium carbonate contained in these products. **See NOTES in SECTION VI.**

SECTION III-HAZARDOUS INGREDIENTS

| <u>Ingredients</u> | <u>CAS Number</u> | <u>Exposure Limits* in ppm (parts Per million)</u> | <u>Flash Point</u> | | <u>Vapor Pressure (mm Hg at 20°C)</u> | <u>Evap. Rate (n-Butyl Acetate=1)</u> | <u>Boiling Point</u> | | <u>Flammable Limits in %</u> | | <u>Autoignition Pt.</u> | |
|---------------------------------------|-------------------|--|--------------------|-----------|---------------------------------------|---------------------------------------|----------------------|-----------|------------------------------|--------------|-------------------------|-----------|
| | | | <u>°F</u> | <u>°C</u> | | | <u>°F</u> | <u>°C</u> | <u>Lower</u> | <u>Upper</u> | <u>°F</u> | <u>°C</u> |
| 1. Calcium Carbonate** | 1317-65-3 | 10 mg/m ³ Dust A | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 2. Carbon Black | 1333-86-4 | 3.5mg/m ³ Dust A | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 3. DBU | 6674-22-2 | Not Established | 233 | 112 | <0.1 | <0.1 | -NA- | Unknown | 500 | 260 | 500 | 260 |
| 4. Dibutyltin Diacetate | 1067-33-0 | 0.1 mg/m ³ A,O(Skin) | -NA- | -NA- | <0.1 | <0.1 | Unknown | Unknown | Unknown | Unknown | Unknown | Unknown |
| 5. DUP (Diundecyl-phthalate) | 3648-20-2 | Not Established | -NA- | -NA- | <0.1 | <0.1 | Unknown | Unknown | Unknown | Unknown | Unknown | Unknown |
| 6. Di-Isononyl Phthalate | 28553-12-0 | Not Established | -NA- | -NA- | <0.1 | <0.1 | Unknown | Unknown | Unknown | Unknown | Unknown | Unknown |
| 7. Ethyl Benzene | 100-41-4 | 100 A | 59 | 15 | 7 | 0.5 | 277 | 136 | 1.0 | 6.7 | 810 | 432 |
| 8. Hydrophobic Amorphous Fumed Silica | 68611-44-9 | 10 mg/m ³ dust | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 9. Isoparaffin Mixture | 64742-48-9 | 300 E | 104 | 40 | <10 | 0.3 | 313 | 156 | 0.7 | 7.0 | 559 | 293 |
| 10. Polyurethane Polymer | Unknown | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 11. Polyvinyl Chloride | 9002-86-2 | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 12. Silane | 1760-24-3 | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 13. Silane | 13822-56-5 | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 14. Silane | 227095-51-0 | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 15. Silica-Crystalline | 14808-60-7 | 0.1 mg/m ³ R.D.A, O | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 16. Titanium Dioxide | 13463-67-7 | 10 mg/m ³ Dust A | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 17. Toluene | 108-88-3 | 50 A (Skin), 200 O | 45 | 7 | 38 | 1.5 | 230 | 110 | 1.2 | 7.0 | 900 | 482 |
| 18. Urethane Prepolymer | Proprietary | Not Established | -NA- | -NA- | NA | NA | -NA- | -NA- | -NA- | -NA- | -NA- | -NA- |
| 19. Xylene | 1330-20-7 | 100 A, O | 80 | 27 | 10 | 0.8 | 281 | 138 | 1.0 | 7.0 | 810 | 432 |

*A means ACGIH TLV, O means OSHA, mg/m³ means milligrams per cubic meter, E means Suppliers Recommendation >means greater than, < means less than, NA means Not Applicable, R.D. means Respirable Dust, Skin means vapor exposure to the skin must also be considered. ****See SECTION VI for health hazards.**

SECTION IV-PHYSICAL DATA

Evaporation Rate: See SECTIONS II, III. **Vapor Density:** Heavier than air. **Solubility in Water (Wt%):** Less than 1. **Volatile Volume %:** See SECTION II. **Approximate Boiling Point:** See SECTIONS II, III. **Product Density:** Heavier than water. **Appearance and Odor:** See SECTION II.

SECTION V-FIRE AND EXPLOSION DATA

Flash Point (Tag Closed Cup Method): CH-V, CS-F: 52°F (11°C). CU-P, CU-PB, CU-PW, SU-P: Greater than 140°F (60°C). CS-BL, CS-GR: Greater than 200°F (93°C).

Flammable Limits: See SECTIONS II, III. **Autoignition Temperature:** See SECTIONS II, III. **Extinguishing Media:** Foam, carbon dioxide, dry chemical. **Fire Fighting Procedures:** Full protective equipment, including self-contained breathing apparatus, is recommended because 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 (containers may leak or burst).

Unusual Fire and Explosion Hazards: Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, electric motors, smoking or other ignition sources at locations far from material handling point. At elevated temperatures [130°F (54°C) or over] containers may vent, rupture or burst (cartridges may extrude their plungers).

SECTION VI-HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, Skin contact, Eye contact, Ingestion (very unlikely).

SIGNS AND SYMPTOMS OF EXPOSURE:

INHALATION:
Acute Exposure: Solvent 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 (tightness). May cause central nervous system depression with the following progressive symptoms: headache, dizziness, nausea, staggering gait, confusion, unconsciousness, cessation of breathing and death

Chronic Exposure: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Symptoms include: loss of memory, loss of intellectual ability and loss of coordination. **NOTE: INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING SOLVENT VAPORS MAY BE HARMFUL OR FATAL!**

SKIN CONTACT:

Acute Exposure: Repeated or prolonged skin contact with sealants can result in dry, defatted and cracked skin causing increased susceptibility to infection. Skin irritation may develop into contact dermatitis.

Chronic Exposure: Exposure to small amounts of sealants over long periods of time may cause some or all of the symptoms as in acute exposure to sealants.

EYE CONTACT:

Acute Exposure: Solvent vapors may irritate the eyes with resulting itching, burning, redness. Permanent tissue damage may occur if the sealants are applied directly to the eyes and not flushed out immediately.

Chronic Exposure: Symptoms as in acute exposure but to a lesser degree and eye damage not likely.

INGESTION:

Acute Exposure: (Not likely) Irritation to the mouth, and if swallowed, to the esophagus, stomach tissue and digestive tract.

Chronic Exposure: Unknown.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

None specifically known to Crest Industries, Inc. but it is possible that eye, respiratory tract, skin, liver, kidney, blood cell formation, nervous system and brain diseases may be aggravated by overexposure to the products on this MSDS.

CARCINOGENICITY: Products not listed by NTP, IARC or OSHA. **NOTE: 1. Calcium Carbonate contains small but detectable amounts of Crystalline Silica 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 dried sealants are sanded, inhalation of the sanding dust must be avoided. WEAR A DUST MASK.**

SECTION VII-EMERGENCY AND FIRST AID PROCEDURES

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. Wipe off excess material with rags or paper towels. Clean with waterless hand cleaner or wash affected areas thoroughly with soap and water. Wash contaminated clothing thoroughly before reuse. Apply skin cream if irritated. Seek medical attention if irritation persists.

INHALATION: Move to an area free from risk of further exposure. Administer oxygen or artificial respiration as needed. Obtain medical attention.

INGESTION: Induce vomiting. Consult physician, hospital emergency room or poison control center immediately. Have list of ingredients available.

NOTES TO PHYSICIAN:

Eyes: Stain for evidence of corneal injury. If cornea burned, instill antibiotic/steroid preparation frequently.

Skin: Treat symptomatically.

Inhalation: Treat as for solvent vapor inhalation.

Ingestion: Treat symptomatically.

SECTION VIII-EMPLOYEE PROTECTION RECOMMENDATIONS

EYE PROTECTION: Wearing of safety glasses is desirable during use of sealants. Contact lenses should not be worn.

SKIN PROTECTION: Cover as much of the skin as possible with appropriate clothing. Wear solvent resistant gloves.

VENTILATION AND RESPIRATORY PROTECTION: If exhaust ventilation sufficient to keep the air-borne concentration of solvents below their respective TLVs is not possible, an OSHA/MSHA approved TC23C Respirator or TC19C Air Supplied Respirator must be used. Observe OSHA regulations (29 CFR 1910.134) for respirator use. **NOTE: THERE MUST ALWAYS BE ENOUGH VENTILATION TO KEEP VAPOR CONCENTRATION BELOW THE LOWER FLAMMABLE LIMIT! If the dried sealants are sanded, WEAR A DUST MASK to avoid inhalation of dust.**

OTHER PROTECTIVE MEASURES: Eyewash stations should be available. Educate and train employees in safe use of products. Follow all label instructions.

SECTION IX-REACTIVITY DATA

STABILITY: Stable under normal room conditions.

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (Materials to Avoid): Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS:

ALL will, by high heat and fire, give off carbon dioxide, carbon monoxide, hydrocarbon vapors and smoke.

CH-V, CS-F, CU-P, CU-PB, CU-PW and SU-P may also give off nitrogen oxides and isocyanates. **CU-P, CU-PB, CU-PW, SU-P** may also give off hydrogen chloride, chlorine, phosgene and chlorinated hydrocarbon vapors.

SECTION X-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Wear protective equipment including respiratory protection. Prevent further spillage. Evacuate nonessential personnel. Remove all sources of ignition and ventilate the area. Keep spill from reaching sewers and waterways. Collect material with non-sparking tools and put in a tightly sealed container. Remove container to a safe place.

WASTE DISPOSAL METHOD: Follow all federal, state and local environmental control regulations. Incineration of the material is the preferred method. Containers must be handled with care due to flammable and toxic residue.

RCRA STATUS: Since these products are ignitable and contain toxic solvents, they are hazardous when discarded.

SECTION XI-SPECIAL PRECAUTIONS & STORAGE DATA

STORAGE TEMPERATURE

MINIMUM / MAXIMUM: 50°F (10°C) / 130°F (54°C)

RECOMMENDED SHELF LIFE: One year

PRECAUTIONS TO BE TAKEN IN HANDLING, STORAGE AND USE: Keep away from heat, sparks and open flame. Do not store in temperatures above 130°F (54°C) or in direct sunlight. The sealants remain usable longest when kept as cool and dry as possible.) Do not inhale vapors. Avoid contact with skin and eyes. Wash hands after use and before eating, drinking, smoking or using the toilet. Educate and train employees in the safe use and handling of these materials as required under the OSHA Hazard Communication Standard (29 CFR 1910.1200)

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 tables 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**, according to law, be included in all MSDSs that are copied and distributed for materials covered by this MSDS.

HAZARDOUS INGREDIENTS IN SEALANTS-APPROXIMATE PERCENTAGES BY WEIGHT

| <u>Ingredients (Chemicals)</u> | <u>CAS Number</u> | <u>CH-V</u> | <u>CS-F</u> | <u>CS-BL</u> | <u>CS-GR</u> | <u>CU-P</u> | <u>CU-PB</u> | <u>CU-PW</u> | <u>SU-P</u> |
|---------------------------------------|-------------------|---------------------------------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|
| 1. Calcium Carbonate | 1317-65-3 | - | 30 | P* | P* | P* | P* | P* | P* |
| 2. Carbon Black | 1333-86-4 | P* | P* | P* | P* | P* | P* | - | P* |
| 3. DBU | 6674-22-2 | - | P* | - | - | - | - | - | - |
| 4. Dibutyltin Diacetate | 1067-33-0 | - | P* | - | - | - | - | - | - |
| 5. DUP (Diundecylphthalate) | 3648-20-2 | 10 | - | - | - | - | - | - | - |
| 6. Di-Isononyl Phthalate | 28553-12-0 | - | - | 5-15 | 5-15 | - | - | - | - |
| *7. Ethyl Benzene | 100-41-4 | - | - | - | - | 01 | 01 | 01 | 01 |
| 8. Hydrophobic Amorphous Fumed Silica | 68611-44-9 | - | - | - | - | P* | P* | P* | P* |
| 9. Polyurethane Polymer | Unknown | P* | - | - | - | - | - | - | - |
| 10. Isoparaffin Mixture | 64742-48-9 | - | - | 10-15 | 10-15 | - | - | - | - |
| 11. Polyvinyl Chloride | 9002-86-2 | - | - | - | - | P* | P* | P* | P* |
| 12. Silane | 1760-24-3 | - | P* | - | - | - | - | - | - |
| 13. Silane | 13822-56-5 | 05 | - | - | - | - | - | - | - |
| 14. Silane | 227095-51-0 | - | P* | - | - | - | - | - | - |
| 15. Silica-Crystalline | 14808-60-7 | - | - | P* | P* | P* | P* | P* | P* |
| 16. Titanium Dioxide | 13463-67-7 | - | - | P* | P* | P* | - | P* | P* |
| *17. Toluene | 108-88-3 | 04 | 5-10 | - | - | - | - | - | - |
| 18. Urethane Prepolymer | Mixture | 70 | 70 | - | - | P* | P* | P* | P* |
| *19. Xylene | 1330-20-7 | - | - | - | - | 06 | 06 | 06 | 06 |
| Physical Hazard-Fire | | 04 | 5-10 | - | - | 06 | 06 | 06 | 06 |
| Physical Hazard-Pressure Release | | None of the Sealants have this hazard | | | | | | | |
| Health Hazard-Acute | | 04 | 5-10 | - | - | 06 | 06 | 06 | 06 |
| Health Hazard-Chronic | | P* | P* | P* | P* | P* | P* | P* | P* |
| Physical Hazard-Reactivity | | None of the Sealants have this hazard | | | | | | | |

*Present at an unknown percentage greater than 0.1.

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

| <u>Stock Numbers</u> | <u>CH-V</u> | <u>CS-F</u> | <u>CS-BL</u> | <u>CS-GR</u> | <u>CU-P</u> | <u>CU-PB</u> | <u>CU-PW</u> | <u>SU-P</u> |
|-----------------------------|-------------|-------------|--------------|--------------|-------------|--------------|--------------|-------------|
| Percent by Weight | 6.5 | 6.5 | 10.7 | 10.7 | 6.0 | 6.0 | 6.0 | 6.0 |
| Pounds per Gallon | 0.53 | 0.62 | 1.32 | 1.32 | 0.61 | 0.61 | 0.61 | 0.61 |
| Grams per Liter | 63 | 74 | 158 | 158 | 73 | 73 | 73 | 73 |
| Pounds per Container | 0.043 | 0.051 | 0.108 | 0.108 | 0.050 | 0.050 | 0.050 | 0.050 |

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 cancer, birth defects or reproductive toxicity without first giving clear and reasonable warning to such individuals of such an exposure". The following warnings apply:

1. Products Covered Containing Toluene: CH-V, CS-F

WARNING: These products contain a chemical known to the State of California to cause birth defects and other reproductive harm.

2. Products Covered Containing Silica-Crystalline: CS-BL, CS-GR, CU-P, CU-PB, CU-PW, SU-P.

WARNING: These products contain chemicals 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.