SANICRETE
THE SANITARY SEAMLESS SOLUTION

SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **SanicCrete Part 2 (SL, SLQ, STX, HF, VR, PC, MD, SaniPatch)**
SYNONYMS: **SaniPatch Part 2**
PRODUCT CODES**: n/a**

MANUFACTURER: **Kwasny Company/DBA SaniCrete**
DIVISION: **n/a**
ADDRESS: **11023 Hi Tech Dr. Whitmore Lake, MI 48189**

EMERGENCY PHONE: **800-255-3924 Chem-Tel**
OTHER CALLS: **734-550-9445**
FAX PHONE: **n/a**

CHEMICAL NAME: **Proprietary hardener component for cementitious polyurethane flooring**
CHEMICAL FAMILY: **Diisocyanates Compound**
CHEMICAL FORMULA: **Proprietary**

PRODUCT USE: **Polyurethane modified cement flooring**
PREPARED BY: **Mike Fortman 248-893-1000**

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	CONTENT
Diphenylmethane-4,4'-diisocyanate	**101-68-8**	**38%**
MDI Mixed isomers	**26447-40-5**	**< 10.0%**
P-MDI	**9016-87-9**	**< 55.0%**

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:
CAUTION: CONTAINS DIPHENYLMETHANE DIISOCYANATE (CAS No. 101-68-8). INHALATION OF MDI MISTS OR VAPORS MAY CAUSE RESPIRATORY IRRITATION, BREATHLESSNESS, CHEST DISCOMFORT AND REDUCED PULMONARY FUNCTION. OVEREXPOSURE ABOVE THE PEL MAY RESULT IN BRONCHITIS, BRONCHIAL SPASMS AND PULMONARY EDEMA. LONG-TERM EXPOSURE TO ISOCYANATES HAS BEEN HAS BEEN REPORTED TO CAUSE LUNG DAMAGE, INCLUDING REDUCED LUNG FUNCTION WHICH MAY BE PERMANENT. ACUTE OR CHRONIC OVEREXPOSURE TO ISOCYANATES MAY CAUSE SENSITIZATION IN SOME INDIVIDUALS, RESULTING IN ALLERGIC RESPIRATORY REACTIONS INCLUDING WHEEZING, SHORTNESS OF BREATH AND DIFFICULTY BREATHING.

ROUTES OF ENTRY:
Solids and Liquids - Eye and skin contact, ingestion and inhalation
Gases – inhalation and eye contact
Skin contact - may be a route for liquefied gases

POTENTIAL HEALTH EFFECTS
EYES: **May cause irritation; eye contact with isocyanates may result in conjunctival irritation and mild corneal opacity**

SKIN: **Prolonged or repeated exposure may cause irritation; contact with isocyanates may result in dermatitis, irrative or allergic**

INHALATION: **Irritation of the upper respiratory system**

ACUTE HEALTH HAZARDS:
Inhalation of vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Inhalation exposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain.

CHRONIC HEALTH HAZARDS:

INFORMATION ON: MDI
Results from a lifetime inhalation study in rats indicate that MDI aerosol was carcinogenic at 6 mg/m3, the highest dose tested. This is well above the recommended TLV of 5 ppb (0.05 mg/m3). Only irritation was noted at the lower

concentration of 0.2 and 1 mg/m3. No birth defects or teratogenic effects were reported in a teratology study with rats exposed to 1, 4, and 12 mg/m3 polymeric MDI for 6 hr/day on days 6-15 of gestation. Embryotoxicity and fetotoxicity was reported at the top dose in the presence of maternal toxicity.

INFORMATION ON: ISOCYANATES

As a result of previous repeated overexposures or a single large dose, certain individuals will develop isocyanate sensitization (chemical asthma) which will cause them to react to a later exposure to isocyanate at levels well below the PEL/TLV. These symptoms, which include chest tightness, wheezing, cough, shortness of breath, or asthmatic attack, could be immediate or delayed up to several hours after exposure. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Chronic overexposure to isocyanates has also been reported to cause lung damage, including a decrease in lung function, which may be permanent. Sensitization may be either temporary or permanent. Prolonged contact can cause reddening, swelling, rash, scaling, or blistering. In those who have developed a skin sensitization, these symptoms can develop as a result of contact with very small amounts of liquid material, or even as a result of vapor-only exposure.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
The isocyanate component is a respiratory sensitizer. It may cause allergic reaction leading to asthma-like spasms of the bronchial tubes and difficulty in breathing. Persons with a history of respiratory disease or hypersensitivity should not be exposed to this product. Medical supervision of all employees who handle or come into contact with isocyanates is recommended. Pre-employment and periodic medical examinations with respiratory function tests (FEV, FVC as a minimum) are suggested. Persons with asthmatic conditions, chronic bronchitis, other chronic respiratory diseases, recurrent eczema or pulmonary sensitization should be excluded from working with isocyanates. Once a person is diagnosed as having pulmonary sensitization (allergic asthma) to isocyanates, further exposure is not recommended. Contact may aggravate pulmonary disorders.

SECTION 4: FIRST AID MEASURES

GENERAL ADVICE: **Remove contaminated clothing immediately**

EYES: **Immediately flush eyes with large amounts of water for at least 15 minutes; seek medical attention immediately.**

SKIN: **Wash affected area thoroughly with soap and water; seek medical attention if irritation develops.**

INGESTED: **DO NOT INDUCE VOMITING; rinse mouth and drink plenty of water; seek immediate medical attention.**

INHALED: **If affected, remove the individual into fresh air.**

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

HAZARDS:	**Symptoms can appear later.**
ANTIDOTE:	**Specific antidotes or neutralizers to isocyanates do not exist.**
TREATMENT:	**Treatment should be supportive and based on the judgement of the physician in response to the reaction of the patient**

SECTION 5: FIRE-FIGHTING MEASURES

FLASH POINT:
F: **428**
C: **220**
METHOD USED: **OPEN CUP**

AUTO IGNITION TEMPERATURE:
F: **No data available**
C: **No data available**

EXTINGUISHING MEDIA: **Water, Dry Extinguishing Media, Carbon Dioxide, Foam**

SPECIAL FIRE FIGHTING PROCEDURES: **Full protective equipment (turn-out gear) including self-contained breathing apparatus should be used. Water spray may be ineffective; If water is used, fog nozzles are preferable. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.**

UNUSUAL FIRE AND EXPLOSION HAZARDS: **Closed containers may explode when exposed to extreme heat due to the build up of pressure. During emergency conditions, overexposure to decomposition products may cause a health hazard. Symptoms may not be immediately apparent. Seek medical attention.**

HAZARDOUS DURING FIRE-FIGHTING: **Nitrous gases, fumes/smoke, isocyanate, vapor**

SECTION 6: ACCIDENTAL RELEASE MEASURES

FOR SMALL AMOUNTS:
Absorb isocyanate with suitable absorbent material (see § 40 CFR, sections 260, 264 and 265 for further information). Shovel into open container. Do not make container pressure tight. Move container to a well-ventilated area (outside). Spill area can be decontaminated with the following recommended decontamination solution: Mixture of 90 % water, 8 % concentrated ammonia, 2 % detergent. Add at a 10 : 1 ratio. Allow to stand for at least 48 hours to allow evolved carbon dioxide to escape.

FOR LARGE AMOUNTS:
If temporary control of isocyanate vapor is required, a blanket of protein foam or other suitable foam (available from most fire departments) may be placed over the spill. Transfer as much liquid as possible via pump or vacuum device into closed but not sealed containers for disposal.

FOR RESIDUES:
The following measures should be taken for final cleanup: Wash down spill area with decontamination solution. Allow solution to stand for at least 10 minutes.

PERSONAL PRECAUTIONS:
Clear the area; Ensure there is adequate ventilation; Wear suitable protective clothing and equipment.

ENVIRONMENTAL PRECAUTIONS:
Do not discharge into drains/surface waters/groundwater.

CLEANUP:
Dike spillage.

SECTION 7: HANDLING AND STORAGE

HANDLING

GENERAL ADVICE:
If bulging of drum occurs, transfer to well ventilated area, puncture to relieve pressure, open vent and let stand for 48 hours before resealing.

PROTECTION AGAINST FIRE AND EXPLOSION:
No explosion-proofing necessary.

STORAGE

GENERAL ADVICE:
Formation of CO2 and build up of pressure possible. Keep container tightly closed and in a well-ventilated area when not in use. Outage of containers should be filled with dry inert gas at atmospheric pressure to avoid reaction with moisture.

STORAGE INCOMPATIBILITY:
General – Segregate from bases.

STORAGE STABILITY:
Storage Temperature: 60 – 80 °F
Protect against moisture

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

Diphenylmethane-4,4'-diisocyanate (MDI)	**OSHA ACGIH**	**CLV 0.02 ppm 0.2 mg/m3 ; TWA value 0.005 ppm ;**

ADVICE ON SYSTEM DESIGN:
Provide local exhaust ventilation to maintain recommended PEL

PERSONAL PROTECTIVE EQUIPMENT

REPIRATORY PROTECTION:
For situations where the airborn concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions. When atmospheric levels may exceed the occupational exposure limit (PEL or TLV) NIOSH-certified air-purifying respirators equipped with an organic vapor sorbent and particulate filter can be used as long as appropriate precautions and change out schedules are in place.

HAND PROTECTION:
Chemical resistant protective gloves, suitable materials, chloroprene rubber (Neoprene), chlorinated polyethylene, polyvinylchloride (Pylox), butyl rubber, fluoroelastomer (Viton), nitrile rubber (Buna N).

EYE PROTECTION:
Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

BODY PROTECTION:
Suitable materials, saran-coated material

GENERAL SAFETY AND HYGIENE MEASURES:
Use only with adequate ventilation. Avoid contact with skin and eyes; avoid breathing vapor and spray mist. Wash hands after using. Wear protective clothing as necessary to prevent contact. Eye wash fountains and safety showers must be easily accessible. Observe the appropriate PEL value. Wash soiled clothing immediately. Contaminated equipment or clothing should be cleaned after each use or disposed of.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

FORM:	**liquid**	
ODOR:	**faint odor, aromatic**	
COLOR:	**dark brown**	
pH VALUE:		**no data avaliable**
FREEZING POINT:	**8F/3 °C**	**(1 ATM)**
BOILING POINT:	**200 °C**	**(5 mmHg)**
VAPOR PRESSURE:	**< 0.00001 mmHg**	**(20 °C)**
RELATIVE DENSITY:	**1.22**	**(25 °C)**
BULK DENSITY:	**10.16 lb/USg**	
VAPOR DENSITY:	**N/A**	
SPECIFIC GRAVITY:	**1.23**	
EVAPORATION RATE:	**N/A**	
SOLUBILITY IN WATER:	**N/A**	
VISCOSITY, DYNAMIC:	**200 mPa.s**	**(20 °C)**
VOLATILE VOLUME:	**0%**	
VOLATILE ORGANIC COMPOUNDS (VOC):	**0%**	

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS TO AVOID:
Avoid moisture.

SUBSTANCES TO AVOID:
Water, alcohols, strong bases, substances/products that react with isocyanates.

HAZARDOUS REACTIONS:
PRODUCT IS CHEMICALLY STABLE
Reacts with water, with formation of carbon dioxide. Risk of bursting. Reacts with alcohols. Reacts with acids. Reacts with alkalies. Reacts with amines. Risk of exothermic reaction. Risk of violent reaction. Risk of polymerization. Contact with certain rubbers and plastics can cause brittleness of the substance/product with subsequent loss in strength.

DECOMPOSITION PRODUCTS:
Hazardous decomposition products: carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

THERMAL DECOMPOSITION:

>260 °C
No data available.

CORROSION TO METALS:
No corrosive effect on metal.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE TOXICITY

ORAL:
LD50/rat: > 10,000 mg/kg
Practically non-toxic

INHALATION:
LC50/rat: > 2.240 mg/l/ 1 h
Moderately toxic

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY

ACUTE AND PROLONGED TOXICITY TO FISH:
Static
Zebra Fish/LC50 (24 h): > 500 mg/l
Practically non-toxic

ACUTE TOXICITY TO AQUATIC INVERTEBRATES:
Daphnia magna/EC50 (24 h): > 500 mg/l
Practically non-toxic

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: **Waste from this product is not hazardous under the RCRA (Resource Conservation and Recovery Act). Solidify waste or incinerate in an approved facility. Do not incinerate closed containers**

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (USDOT)
PROPER SHIPPING NAME: **Not Regulated for Transportation**
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENT:
DOT (Department of Transportation) Hazardous Substances & Reportable Quantities: MDI 5,000lb RQ

WATER TRANSPORTATION (IMDG)
PROPER SHIPPING NAME: **Not Regulated for Transportation**
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENTS:

AIR TRANSPORTATION (IATA/ICAO)
PROPER SHIPPING NAME: **Not Regulated for Transportation**
HAZARD CLASS:
ID NUMBER:
PACKING GROUP:
LABEL STATEMENTS:

SECTION 15: REGULATORY INFORMATION

FEDERAL REGULATIONS

REGISTRATIONS STATUS:

TSCA, US	**released / listed**
TSCA, 12B	**released / listed**

OSHA HAZARD CATEGORY:

ACGIH TLV established, Highly toxic – inhalation, Chronic target organ effects reported, Skin and/or eye irritant, Acute target organ effects reported, Sensitizer, OSHA PEL established

CERCLA RQ	CAS NUMBER	CHEMICAL NAME
5,000 LBS	**101-68-8**	**Diphenylmethane-4,4'-diisocyanate (MDI)**

SARA HAZARD CATEGORIES (EPCRA 311/312):**Acute, Chroni**c

SARA 313:

CAS NUMBER	CHEMICAL NAME
	Diisocyanates Compound Category

STATE REGULATIONS

STATE RTK

CAS NUMBER	CHEMICAL NAME	STATE RTK
101-68-8	**Diphenylmethane-4,4'-diisocyanate (MDI)**	**MA, NJ, PA**
9016-87-9	**P-MDI**	**NJ**

SECTION 16: OTHER INFORMATION

HMIS HAZARD CLASSIFICATION

HEALTH: **2** FLAMMABILITY: **1** PHYSICAL HAZARD: **1**

PROTECTION: **Impervious gloves, safety glasses**

HMIS uses a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates high hazard.

PREPARATION INFORMATION: **Tyler Kwasny 734-550-9445**

DISCLAIMER: **The descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate.**