CRETEFILL PRO 75

FROM THE MAKERS OF THE ASHFORD FORMULA AND THE RETROPLATE SYSTEM™

MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Code: CFP75
Product Name: **CRETE FILL *PRO POLYUREA 75* "A" (ISOCYANATE) SIDE**

Supplier Name and Address:
Curecrete Distribution, Inc.
1203 W. Spring Creek Place
Springville, UT 84663 USA
(801) 489-5663

24-HOUR EMERGENCY PHONE: Chemtrec (800) 424-9300

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Component/Exposure Limits	CAS#	% by Weight
* DIPHENYLMETHANE DIISOCYANATE	25686-28-6	45%-50%
ACGIH TLV: 0.005ppm TLV; OSHA CLV: 0.02ppm, 0.2mg/m3		

SECTION 3 - HAZARDS IDENTIFICATION

*****EMERGENCY OVERVIEW*****

WARNING!
Color: Colorless to pale yellow to dark brown
Form: Liquid
Odor: Slight, musty
Toxic gases/fumes may be given off during burning or thermal decomposition. Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water. Use cold water spray to cool fire-exposed containers to minimize the risk of rupture. Causes respiratory tract irritation. May cause allergic respiratory reaction. Harmful if inhaled. Respiratory sensitizer. Lung damage and respiratory sensitization may be permanent. Causes skin irritation. May cause allergic skin reaction. Skin sensitizer. Animal tests and other research indicate that skin contact with this product can play a role in causing isocyanate sensitization and respiratory reaction. Causes eye irritation. May cause lung damage.

*****POTENTIAL HEALTH EFFECTS*****

EYE: Acute Eye: Causes irritation with symptoms of reddening, tearing, stinging and swelling. May cause temporary corneal injury.
Chronic Eye: Prolonged vapor contact may cause conjunctivitis.

SKIN: Acute Skin: Causes irritation with symptoms of reddening, itching, and swelling.
Chronic Skin: Prolonged contact can cause reddening, swelling, rash, and in some cases, skin sensitization and even respiratory reaction.

INGESTION: May cause irritation; symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

INHALATION: Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system. The onset of respiratory symptoms my be delayed for several hours after exposure. A hypersensitive response to even minimal concentrations of diisocyanates may develop in sensitized persons.

Inhalation symptoms: Diisocyante vapors or mist at concentrations above the TLV or PEL can irritate (burning sensation) the mucus membranes in the respiratory tract (nose, throat, lungs) causing runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung functions (breathing obsruction). Persons with a preexisting, nonspecific bronchial hypersensitivity can respond to concentrations below the TLV or PEL with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure above the TLV or PEL may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in the lungs), chemical or hypersensitivity pneumonia, with flu-like symptoms (e.g., fever, chills) has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.

Chronic inhalation: As a result of previous repeated overexposure or a single large dose, certain individuals may develop sensitization to diisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to diisocyanates at levels well below the TLV or PEL. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath and asthma attack, could be immediate or displayed up to several hours after exposure, Extreme asthmatic reactions can be life threatening. Similar to many nonspecific 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. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Skin Allergies, Eczema, Asthma, Respiratory disorders. All applicants who are assigned to an isocyanate work area should undergo a pre-placement medical evaluation. A history of eczema or respiratory allergies such as hay fever, are possible reasons for medical exclusion from isocyanate areas. Applicants who have a history of adultasthma should be restricted from work with isocyanates. Applicants with a history of prior isocyanate sensitization should be excluded from further work with isocyanates. A comprehensive annual medical surveillance program should be instituted for all employees who are potentially exposed to diisocyanates. Once a worker has been diagnosed as sensitized to any isocyanate, no further exposure can be permitted.

CHRONIC INFORMATION: .
Respiratory sensitizer.

CARCINOGENICITY: NTP CARCINOGEN-No, IARC MONOGRAPHS-No, OSHA CARCINOGEN-No

TERATOLOGY (BIRTH DEFECT) INFORMATION: Information not found

REPRODUCTION INFORMATION: Information not found.

SECTION 4 - FIRST AID MEASURES

EYES: Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use lukewarm water if possible. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Get medical attention.

SKIN: Skin Contact: Immediately remove contaminated clothing and shoes. Wash off with soap and water. Use lukewarm water if possible. Wash contaminated clothing before reuse. For severe exposure, immediately get under safety shower and begin rinsing. Get medical attention if irritation develops. After washing, cover affected skin with polyethylene glycol (300-500 moleculaR weight) and wash again immediately with soap and water to thoroughly remove polyethylene glycol and residual isocyanate. Repeat if necessary.

INGESTION: Do not induce vomiting. Wash mouth out with water. Do not give anything by mouth to an unconscious person. Get medical attention.

INHALATION: Move to an area free from further exposure. Get medical attention immediately. Administer oxygen or artificial respiration as needed. Asthmatic symptoms may develop and may be immediate or delayed up to several hours. Extreme asthmatic reaction can be life threatening.

NOTE TO PHYSICIANS: NOTE TO A PHYSICIAN:
Eyes: Stain for evidence of corneal injury. If cornea is burned, instill antibiotic/steroid preparation as needed. Workplace vapors could produce reversible corneal epithelial edema impairing vision.
Skin: This compound is a skin sensitizer. Treat symptomatically as for contact dermatitis or thermal burn.
Ingestion: Treat symptomatically. There is no specific antidote. Induced vomiting is contraindicated because of the irritating nature of the compound.
Inhalation: Treatment is essentially symptomatic. An individual having a derma or pulmonary sensitization reaction to this material should be removed from further exposure to any diisocyanate.

SECTION 5 - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:
FLASH POINT: 230 F Method: COP

FLAMMABLE LIMITS:
Lower flammable limit: N/A
Upper flammable limit: N/A

AUTOIGNITION TEMPERATURE: Approximately 800F
HAZARDOUS COMBUSTION PRODUCTS: By Fire and High Heat: Carbon dioxidE (CO_2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds.

EXTINGUISHING MEDIA: Use dry chemical foam, carbon dioxide, water fog or fine spray. Do not use direct water spray as it will spread the fire.

FIREFIGHTING INSTRUCTIONS: Do not use water jet. Protective clothing for fire: Splash goggles, full suit, gloves. Self contained breathing apparatus (SCBA) should be used to avoid inhalation of product.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SMALL SPILL:
Minor Spill or Leak (Wet Surface): Cover spill area with suitable absorbent material (Kitty Litter, Oil-dri™, etc.). Saturate absorbent material with neutralization solution (see formulas below) and mix. Wait 15 minutes. Collect material in open-head metal containers. Repeat application of decontamination solution (see formulas below), with scrubbing, followed by absorbent until the surface is decontaminated. Check for residual surface contamination. Swipe® tests have been used for this purpose. Apply lid loosely and allow containers to vent for 72 hours to let carbon dioxide (CO_2) escape.
Additional Spill Procedures/Neutralization/Decontamination
Neutralization/Decontamination Solutions:

(1) Colorimetric Laboratories Inc. (CLI) decontamination solution.
(2) A mixture of 75% water, 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10) and 5% n-propanol.
(3) A mixture of 80% water, and 20% non-ionic surfactant (e.g. Poly-Tergent SL-62, Tergitol TMN-10).
(4) A mixture of 90% water, 3-8% ammonium hydroxide or concentrated ammonia , and 2% liquid detergent.

(5) Mix equal amounts of the following to total two times the estimated spill volume: (1) mineral spirits 80%, VM&P naphtha 15% and household detergent 5%; and (2) a 50/50 mixture of monoethanolamine and water.

LARGE SPILL:
Major Spill or Leak (Standing Liquid): Released material may be pumped into closed, but not sealed, metal container for disposal. Process can generate heat. Large Spill and Leak Procedures: Evacuate non-emergency personnel. Isolate the area and prevent access. Remove ignition sources. Notify management. Put on protective equipment. Control source of the leak. Ventilate. Contain the spill to prevent spread into drains, sewers, water supplies, or soil.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS:
Recommended Storage Temperature:
Minimum: 25C (77F)
Maximum: 30C (86F)
Recommended Storage Period: 12 months

Handling/Storage Precautions:
Do not breathe vapors, mists, or dusts. Use adequate ventilation to keep isocyanates levels below the exposure limits. Wear respiratory protection if material is heated, sprayed, used in a confined space, or if the exposure limit is exceeded. Warning properties (irritation of the eyes, nose and throat or odor) are not adequate to prevent overexposure from inhalation. This material can produce asthmatic sensitization upon either single inhalation exposure to a relatively high concentration or upon repeated inhalation exposures to lower concentrations. Individuals with lung or breathing problems or prior allergic reactions to isocyanates must not be exposed to vapor or spray mist. Avoid contact with skin and eyes. Wear appropriate eye and skin protection. Wash thoroughly after handling. Do not breathe smoke and gases created by overheating or burning this material. Decomposition products can be highly toxic and irritating. Store in tightly closed containers to prevent moisture contamination. Do not reseal if contamination is suspected.

Further Information on Storage Conditions:
Ideal storage temperature range is dependent on the specific polymer due to viscosity and melting point differences between the polymers. Use 25C (77F) to 30C (86F) as a guideline to most isocyanates for optimum storage temperature. If some isocyanates are stored at or below a temperature of 25C (77F), crystallization and settling of the isocyanate may occur. Storage in a cold warehouse can cause crystals to form. These crystals can settle to the bottom of the container. If crystals do form, they can be melted easily with moderate heat. It is suggested that a container the size of a drum be warmed for 16-24 hours at sufficient temperature to melt the crystals. When the crystals are melted, the container should be agitated by rolling or stirring, until the contents are homogenous. Since heated isocyanate will generate vapors more rapidly than product stored at 25C (77F), be sure to follow the precautions under the Personal Protection section of the MSDS whenever opening a heated isocyanate container.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

* DIPHENYLMETHANE DIISOCYANATE 25686-28-6 45%-50%
ACGIH TLV: 0.005ppm TLV; OSHA CLV: 0.02ppm, 0.2mg/m3

ENGINEERING CONTROLS: Local exhaust should be used to maintain levels below TLV whenever isocyanate is heated, sprayed, or aerosolized. Standard reference sources regarding industrial ventilation (e.g. ACGIH Industrial Ventilation Manual) should be consulted for guidance about adequate ventilation. To ensure that published exposure limits have not been exceeded, monitoring for airborne diisocyanate should become part of the overall employee exposure characterization program. NIOSH, OSHA and others have developed sampling and analytical methods.

RESPIRATORY PROTECTION: Airborne isocyanate concentrations greater than the ACGIH TLV-TWA or OSHA PEL-C (PEL) can occur in inadequately ventilated environments when isocyanate is sprayed, aerosolized, or heated. In such cases, respiratory protection must be worn. The type of respiratory protection selected must comply with the requirements set forth in OSHA's Respiratory Protection Standard (29 CFR 1910.134). The type of respiratory protection available includes (1) an atmosphere-supplying respirator such as a self-contained breathing apparatus (SCBA) or supplied air respirator (SAR in the positive pressure or continuous flow mode, or (2) an air-purifying respirator (APR). If an APR is selected then (a) the cartridge must be equipped with an end-of-service life indicator (ESLI) certified by NIOSH, or (b) a change out schedule, based on objective information or data that will ensure that the cartridges are changed out before the end of their service life, must be developed and implemented. The basis for the change out schedule must be described in the written respirator program. Further, if an APR is selected, the airborne diisocyanate concentration must be no greater than 10 times the TLV or PEL. The recommended APR cartridge is an organic vapor/particle filter combination cartridge (OV/P100).

SKIN PROTECTION: Gloves should be worn. Nitrile rubber shows excellent resistance. Butyl rubber, neoprene and PVC are also effective.

EYE PROTECTION: When directly handling liquid product, eye protection is required. Examples of eye protection include a chemical safety goggle, or chemical goggle in combination with a full face shield when there is a greater risk of splash.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A
MELTING POINT: May form crystals between 0C(32F) and 25C(77F). If crystals are found, stir before using.

VAPOR PRESSURE, MMHG/TEMPERATURE DEGREES F OR C: .00000477 F

VAPOR DENSITY: Heavier than air.
SOLUBILITY IN WATER: Not soluble in water. Reacts slowly with water to liberate CO2 gas and heat

SPECIFIC GRAVITY: 1.066
pH: Not Applicable
ODOR: Slight, Musty
APPEARANCE: Liquid at room temperature.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY (CONDITIONS TO AVOID): Stable at room temperatures.
Contact with moisture, other materials that react with isocyanates, or temperatures above 350F (177C), may cause polymerization.

INCOMPATIBILITY: Avoid copper alloys. This product will react with any material containing active hydrogens such as water, alcohol, amines, bases, acids and any other compounds meant to react with isocyanates. The reaction with water is very slow under 50 degrees C (122 degrees F) but is accelerated at higher temperatures. Some reactions may be violent.

HAZARDOUS DECOMPOSITION PRODUCTS: By Fire and High Heat: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke, Hydrogen cyanide, Isocyanate, Isocyanic Acid, Other undetermined compounds.

HAZARDOUS POLYMERIZATION: Polymerization may occur at elevated temperatures in the presence of water, alkalies, tertiary amines and metal compounds.

SECTION 11 - TOXICOLOGICAL INFORMATION

NOTE: NOT MEANT TO BE ALL-INCLUSIVE.
Acute Inhalation Toxicity (MDI): LC50: 369 mg/m3, 4 hrs (rat, Male/Female)

SECTION 12 - ECOLOGICAL INFORMATION

NOTE: NOT MEANT TO BE ALL-INCLUSIVE.
Acute and Prolonged Toxicity to Fish (MDI): LC50: >500 mg/l (Zebra fish (Brachydanio rerio), 24 hrs)

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste disposal should be in accordance with existing federal, state and local environmental control laws. Incineration is the preferred method.

Empty Container Precautions:
Empty containers retain product residue; observe all precautions for product. Do not heat or cut empty container with electric or gas torch because highly toxic vapors and gases are formed. Do not reuse without thorough commercial cleaning and reconditioning. If container is to be disposed, ensure all product residues are removed prior to disposal.

SECTION 14 - TRANSPORT INFORMATION

NOTE: NOT MEANT TO BE ALL-INCLUSIVE. LAND TRANSPORT (DOT) INFORMATION DEPENDS ON FLASH POINT (SEE SECTION 5) AND THE BOILING POINT (BP) (SEE SECTION 9). SELECT THE PROPER SHIPPING INFORMATION BELOW FROM THE MATCHING FLASH POINT AND BOILING POINT DATA.
IF FLASH POINT IS GREATER THAN 23C (73.4F) AND LESS THAN OR EQUAL TO 61C (141.8F) AND BP IS LESS THAN 300C(572F):
PROPER SHIPPING NAME/HAZARD CLASS/ID NUMBERS/PG/LABEL CODES
Isocyanates, toxic, flammable, n.o.s./6.1/UN3080/II/6.1, 3

IF FLASH POINT IS GREATER THAN 61C(141.8F)AND BP IS LESS THAN 300C(572F):
Isocyanates, toxic, n.o.s./6.1/UN2206/II/6.1.

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

OSHA: This product is classified as a hazardous material under the criteria outlined in the OSHA Hazard Communication Standard (HCS) (29CFR1910.1200
TSCA (Toxic Substances Control Act): All ingredients are on the TSCA Chemical Substance Inventory.

CERCLA: SARA HAZARD CATEGORY: This product has been reviewed according to the EPA Hazard Categories promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: Acute Health Hazard, Chronic Health Hazard. Fire.
COMPONENTS:
* DIPHENYLMETHANE DIISOCYANATE25686-28-645%-50%
ACGIH TLV: 0.005ppm TLV; OSHA CLV: 0.02ppm, 0.2mg/m3

SECTION 313: * Indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372.

INTERNATIONAL REGULATIONS:

CANADIAN WHMIS: Class D-1A: Material causing immediate and serious toxic effects (very toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): CEPA/Canadian
Domestic Substances List (DSL): The substances(s) in this product is/are on the Canadian Domestic Substances List (CEPA DSL).
This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and this MSDS contains all the information required by the CPR.

EINECS: EUROPEAN SAFETY AND RISK PHRASES: S7/8, R42/43, R48/23/24.

STATE REGULATIONS:

Regulations/Legislation that apply to this product:
Massachusetts Right-to-Know
Pennsylvania Right-to-Know
New Jersey Right-to-Know

CALIFORNIA PROP 65: To the best of our knowledge, this product does not contain any of the listed chemicals, which the state of California has found to cause cancer, birth defects or other reproductive harm.

VOLATILE ORGANIC COMPOUNDS: 0.0 lb/gl

SECTION 16 - OTHER INFORMATION

WARNING! This product is intended to be used as a two-component (2K) system. The mixing of these two components (part A and part B) will have hazards associated with both part A and part B. Refer to the MSDS of each for complete hazard information when working with the mixture.

ARTICLE: 29CFR 1910.1200 (b)(6)(iv) exempts "Articles" from the hazardous communication standard and an MSDS is not required.

"Article" means a manufactured item: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which does not release, or otherwise result in exposure to, a hazardous chemical under normal conditions of use.
HMIS CODES: H F R P =2*11Hopsu

THIS INFORMATION IS FURNISHED WITHOUT WARRANTY, EXPRESS OR IMPLIED. THIS INFORMATION IS BELIEVED TO BE ACCURATE TO THE BEST KNOWLEDGE OF CURECRETE DISTRIBUTION. THE INFORMATION IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN. CURECRETE DISTRIBUTION ASSUMES NO LEGAL RESPONSIBILITY FOR USE OF OR RELIANCE UPON THE INFORMATION IN THIS MSDS.

ABBREVIATIONS USED IN THIS MSDS ARE AS FOLLOWS, BUT ARE NOT INTENDED TO BE AN EXHAUSTIVE LISTING. FOR MORE INFORMATION USE AN INTERNET SEARCH ENGINE AND/OR CONTACT AN ENVIRONMENTAL HEALTH AND SAFETY REGULATORY CONSULTANT.
ACGIH=American Conference of Governmental Industrial Hygienists.
TLV=Threshhold Limit Value.
OSHA=Occupational Safety and Health Administration.
NIOSH=National Institute for Occupational Safety and Health.
TWA=8-hour Time Weighted Average.
STEL=Short Term Exposure Limit.
NE=None Established.
F=Farenheit.
C=Celcius or Centigrade.
PMCC=Pensky Martins Closed Cup.
TCC=Tag Closed Cup.
TOC=Tag Open Cup.
PPM=parts per million.
MG/M3=Milligrams per cubic meter.
LB/GL=pounds per gallon.
N/A=Not Applicable.
NF=Not Found.
NL=None Listed.
HMIS=Hazardous Materials Identification System provided by the American Coatings Association (ACA). Hazards are identified by H=Health, *=chronic, F=Fire, R=Reactivity, P=personal protection needed. Ratings are 1-4 with the higher the number the greater the hazard. For complete description please contact the ACA.