

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME: **GCR™3 Activator** Manufactured By:
Synonym/Chemical/Common Name: Genesis Coatings
GCR 3 Series 2780 La Mirada Dr, #D
 Vista, CA 92081
Emergency: (800) 535-5053 (800) 533-4273
 Date prepared or revised: 06-02-08

II. HAZARDOUS INGREDIENTS

<u>CHEMICAL NAME</u>	<u>CAS #</u>	OSHA Hazardous (H) / Non-Hazardous (NH)	<u>WGT %</u>
Homopolymer of Hexamethylene Diisocyanate	28182-81-2	H	>99
Hexamethylene Diisocyanate (HDI)	822-06-0	H	<0.2

OCCUPATIONAL EXPOSURE LIMITS

	<u>ACGIH TLV</u>	<u>OTHER</u>
Miscellaneous Diisocyanates	1 mg/cu m (TWA)	
Hexamethylene Diisocyanate	0.005 ppm (ACGIH)	

SARA Title III Hazard Classification: Immediate (acute) health hazard; Reactive hazard. Reacts dangerously with water, bases, alcohols and amines. Eye irritant. May be a sensitizer and toxic by inhalation. The information should be accurate and has been tested to EPA Method 24.

III. PHYSICAL PROPERTIES

BOILING RANGE: Greater than 397°F @ 1 mmHg
MELTING POINT: Not available
VOC CONTENT: 0 g/L 0.0lb/g Based on Method EPA 24
SPECIFIC GRAVITY: 1.16 @ 77°F
VAPOR DENSITY (air=1): Not available
VAPOR PRESSURE (mmHg): Not Available
EVAPORATION RATE (butyl acetate = 1): Not available
SOLUBILITY IN H₂O: Reacts with water
% VOLATILE BY VOLUME: Not available
APPEARANCE/ODOR: Colorless to pale yellow viscous liquid odorless

IV. FIRE AND EXPLOSION

FLASH POINT/METHOD: 330 °F - Tag closed cup
FLAMMABLE LIMIT: LFL : NO DATA UFL : NO DATA
EXTINGUISHING MEDIA: CO₂, dry chemical & foam. Do not use water.
UNUSUAL FIRE AND EXPLOSION HAZARDS: In cases of fire and/or explosion, do not breathe fumes. Product reacts with water and bases, triggering polymerization with release of carbon dioxide.
SPECIAL FIREFIGHTING PROCEDURES: Wear a NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Cool tightly closed sealed containers exposed to fire with water.
HAZARDOUS DECOMPOSITION MATERIALS: (Under Fire Conditions) Oxides of nitrogen and oxides of carbon

V. REACTIVITY DATA

STABILITY: Stable. Avoid all sources of ignition. Prevent exposure to water, alcohols and amines.
INCOMPATIBILITY (MATERIALS TO AVOID): Avoid contact with water, strong acids, strong bases, strong oxidizing materials, alcohols, amines, extreme heat and open flame.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Large quantities of carbon dioxide are emitted on reaction with water, bases, alcohols and amines. On combustion, oxides of nitrogen and carbon are emitted.
HAZARDOUS POLYMERIZATION: May occur

VI. HEALTH HAZARD / FIRST AID

EFFECTS OF SINGLE OVEREXPOSURE:

Swallowing: Acute oral toxicity. Oral LD50 (rat) was calculated to be greater than 5 g/kg. (1)

Skin Absorption: Dermal LD50 (rabbit) was determined to be greater than 2 g/kg. (1)

Inhalation: May be a respiratory tract irritant. Because of the presence of hexamethylene diisocyanate which is highly toxic by inhalation, this product may be toxic by inhalation. However, the risk is low because the concentration of hexamethylene diisocyanate is less than 0.2% and the vapor pressure of hexamethylene diisocyanate is low. Possible symptoms of overexposure to HDI: respiratory irritation, nausea, vomiting, headache, narcosis, nocturnal shortness of breath several hours after work.

Skin Contact: Slightly irritating to rabbit skin. (1) In topical applications in guinea pigs, the trimer of HDI caused no skin-sensitizing reaction. (1)

Eye Contact: Product was found to be a mild irritant to rabbit eyes. (1)

EFFECTS OF REPEATED OVEREXPOSURE: In view of the general properties of isocyanates, this product should be considered as a possible risk of eye and respiratory tract irritation and respiratory sensitization (asthma) after repeated exposure or in subjects who are sensitive or who have already been sensitized by other isocyanates.

CARCINOGENICITY: This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as a probable human carcinogen. No evidence of mutagenicity was observed in micronucleus test in bone marrow of CD-1 mice when administered orally at 5000 mg/kg. (1)

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Vapors may be irritating to the nose, throat, and respiratory tract. High vapor concentrations may cause central nervous system depression such as headache, dizziness, fatigue, nausea, possible unconsciousness, even asphyxiation.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE: *Eyes:* Can cause severe irritation, redness, tearing, blurred vision. *Skin:* Prolonged or repeated exposure can cause moderate irritation or may cause dry skin.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Prolonged or repeated exposure can cause irritation, dry skin through the defatting action of the material, or possibly dermatitis. Individuals can become sensitized and have allergic reaction.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Can cause gastrointestinal irritation, nausea, vomiting, or diarrhea. Vomiting can cause aspiration of ingested fluid, small quantities of which may result in aspiration pneumonitis.

HEALTH HAZARDS (ACUTE AND CHRONIC): *Acute:* May cause eye, nose, respiratory tract, and skin irritation. Headache and nausea are also symptoms of over exposure. *Chronic:* Solvents can be toxic by skin absorption. Overexposure in some laboratory animals has caused damage to kidney, liver, and red blood cells.

CARCINOGENICITY: NTP CARCINOGEN: No / IARC MONOGRAPHS: No / OSHA REGULATED: No / Not Carcinogenic

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Allergies or respiratory irritation may be aggravated by exposure.

EMERGENCY AND FIRST AID PROCEDURES: *Eye Contact:* Flush with large amounts of water for at least 15 minutes. If irritation persists get immediate medical attention. *Skin Contact:* Thoroughly wash exposed area with soap and water for at least 5 minutes. Remove contaminated clothing. If irritation persists, get prompt medical attention. *Ingestion:* DO NOT INDUCE VOMITING! Get immediate medical attention. *Inhalation:* Remove to fresh air, restore breathing if necessary. Treat symptoms. Get immediate medical attention.

VII. PRECAUTIONS FOR SAFE HANDLING

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Remove all sources of ignition, dike spill area, pump out liquid or acid absorbent, and dispose of material properly (see below). Ventilate area well. Inform authorities if material enters sewers, watercourses, or land areas.

WASTE DISPOSAL METHOD: Dispose materials in a manner approved by local, state, and federal regulations. Before attempting clean up, refer to hazard caution information in other sections of this sheet.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Use proper storage techniques and store away from high temperatures, sparks, and open flame. Keep closure tight and upright to prevent leakage. Containers - even those that have been emptied - can contain explosive vapors. Do not cut, weld, or grind on or near containers.

OTHER PRECAUTIONS: Warning: Detectable amounts of chemicals known to the State of California to cause cancer, birth defects, or reproductive harm may be found in this product. Proposition 65 of California Health and Safety Code (Section 25249). This material should be used after all safety precautions are read and understood by everyone handling the material. Do not weld or flame cut empty containers.

KEEP AWAY FROM CHILDREN.

VIII. PREVENTIVE MEASURES

RESPIRATORY PROTECTION: Engineering or administrative controls should be implemented to reduce exposure. If the TLV of the product or any component is exceeded, a NIOSHA/MSHA approved air supplied respirator is advised in the absences of proper environmental control. If the working conditions are normal, it is advisable to follow the guidelines set by OSHA, WHMIS or ANSI for face protection: Full-face air-purifying respirators need to be worn at all times in environments where the concentration levels of isocyanate airborne exceed the action levels, but are lower than the IDLH provided that cartridges are changed daily.

VENTILATION: Provide sufficient mechanical ventilation (general and/or local exhaust) to maintain exposure below threshold limit values.

SKIN PROTECTION: Wear non-soluble plastic gloves. Wear long-sleeved clothing at all times in the working area.

EYE/FACE PROTECTION: Chemical splash goggles in compliance with OSHA standards are advised. Face protection should meet requirements set forth by ANSI Z87. The workplace should be equipped with an emergency eye wash area.

OTHER PROTECTIVE EQUIPMENT: Other protective equipment that may be necessary to prevent repeated or prolonged exposure should comply with OSHA standards.

HYGIENIC PRACTICES: Wash hands before eating, smoking, or using the restroom. Smoke in designated areas only. Safety shower should be available.

IX. HMIS RATING

0 = Insignificant	Fire: 1
1 = Slight	Health: 2
2 = Moderate	Reactivity: 1
3 = High	Special Hazard: J
4 = Extreme	

X. USER'S RESPONSIBILITY

The responsibility to provide a safe work place remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

TRADE NAME: **GCR™ 3 Clear Topcoat** Part B - Polyol Base
Manufactured By: Genesis Coatings, Inc
2780 La Mirada Dr, #D
Vista, CA 92081
(800) 533-4273

Date prepared or revised: 06-02-08

II. HAZARDOUS INGREDIENTS

CHEMICAL IDENTITY	OSHA PEL	ACGIH/TLV	CAS #
PROPRIETARY	N.E.	N.E.	
	3 PPM	3PPM	
Trade Secret	25PM	25PPM	

The identity of the compound(s) responsible for the penetrating properties of this product is considered to be a trade secret. This product also contains trade secret ingredients.

III. PHYSICAL PROPERTIES

SPECIFIC GRAVITY (H₂O=1): 1.05 FREEZING POINT OR RANGE: 32°F
SOLUBILITY IN WATER: Dispersible BOILING POINT OR RANGE: >212°F
VAPOR PRESSURE (MMHG): N/A % VOLATILES: 55
VAPOR DENSITY (AIR=1): N/A pH (10% SOLUTION): 8.0 - 9.0
EVAPORATIONRATE (BUTYL ACETATE = 1): N/A
APPEARANCE AND ODOR: Liquid, light yellow with ammonia odor

IV. FIRE AND EXPLOSION

FLASH POINT (ASTM D93): > 212°F
FLASH POINT TEST METHOD: N/A
FLAMMABLE LIMITS: LEL = N.D. UEL = N.D.
EXTINGUISHING MEDIA: Dry Chemicals, Foam, Carbon Dioxide, Water Fog
SPECIAL FIRE FIGHTING PROCEDURES: Remove all Ignition Sources.
Wear self-contained breathing apparatus and complete personal protective equipment when entering areas where potential exposure to vapors or products of combustion exists.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None

V. REACTIVITY DATA

STABILITY: Stable
INCOMPATIBILITY (MATERIALS TO AVOID): Contamination with strong acids and oxidizing agents.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon Dioxide, Carbon Monoxide from burning and toxic fumes at elevated temperature.
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Contact with strong acids, alkali and oxidizing agents

VI. HEALTH HAZARD/FIRST AID

ROUTE(S) OF ENTRY: Inhalation, Skin, and Ingestion
HEALTH HAZARDS (ACUTE AND CHRONIC):
EYES: Will cause injury that will persist for several days
SKIN: Prolonged contact will cause irritation
SWALLOWING: Can cause headaches and nausea
INHALATION: Can cause respiratory irritation

CARCINOGENICITY:

NTP: NO / ARC MONOGRAPH: NO / OSHA REGULATED: NO
SIGNS AND SYMPTOM OF EXPOSURE: No specific information available.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY OVER EXPOSURE: Repeated exposure to this product may cause eye and respiratory tract irritation and respiratory sensitization.
EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush with water for at least 15 minutes. Get medical attention of irritation persists.
SKIN: Wash with soap and water. Remove contaminated clothing and shoes. Wash before reuse.
INHALATION: In case of exposure to high vapor mist, remove person to fresh air. If breathing has stopped, administer artificial respiration and seek medical attention.

VII. PRECAUTIONS FOR SAFE HANDLING

VENTILATION PROTECTION: Use w/adequate ventilation. Local exhaust: recommended
EYE PROTECTION: Splash Proof Eye Goggles
PROTECTIVE GLOVES: Rubber gloves
RESPIRATORY PROTECTION: Product should not be sprayed – roll applications only should be used.
HANDLING AND STORAGE: Store in a cool dry well ventilated area. Protect Container against physical damage. Keep container away from incompatible material (see section V). Keep out of reach of children.
OTHER PROTECTIVE CLOTHING: Eye wash and Safety Shower.
OTHER PRECAUTIONS: Wash thoroughly after handling. Do not wear any contaminated clothing or shoes. Use good personal hygiene practice.

VIII. SPILL, LEAK AND DISPOSAL PROCEDURES

STEPS TO BE TAKEN IN CASE OF SPILL: Dike spill. Absorbed with inert material and collect for disposal. Prevent washing from entering water ways before being neutralized.
WASTE DISPOSAL: Follow all local, state, and federal waste disposal regulations.

IX. HMIS RATING

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