



VULKEM 345 GRAY 5 GAL 20 LITRE PAIL (I)

Version 3.0
 REVISION DATE: 07/08/2012

Print Date 07/09/2012

SECTION 1 - PRODUCT IDENTIFICATION

Trade name : VULKEM 345 GRAY 5 GAL 20 LITRE PAIL (I)
 Product code : 345712 805

COMPANY : Tremco Incorporated
 3735 Green Road
 Cleveland, OH 44122

Telephone : (216) 292-5000 8:30 - 5:00 EST
 Emergency Phone: : (216) 765-6727 8:30 - 5:00 EST
 After Hours: Chemtrec 1-800-424-9300

Product use : Coating

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview

Gray. Liquid solution. May cause drowsiness, weakness, and fatigue. Vapor and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization. Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.

Acute Potential Health Effects/ Routes of Entry

Inhalation : May cause drowsiness, weakness, and fatigue. Vapor and/or mist may irritate nose and throat. May cause moderate irritation to the respiratory system. May cause allergic respiratory sensitization.

Eyes : Vapor and/or mist may cause eye irritation.

Ingestion : May cause irritation to the mouth, throat and stomach. May cause gastrointestinal irritation, nausea, and vomiting.

Skin : May cause sensitization resulting in irritation, itching and redness.

Aggravated Medical Conditions

Pre-existing eye, skin, liver, kidney, and respiratory disorders may be aggravated by exposure.

Chronic Health Effects

Overexposure may cause dermatitis, asthma, skin and respiratory sensitization and decreased lung function. Repeated overexposure to vapors and/or material may injure the liver, kidneys and respiratory system unless suitable engineering controls and/or personal protective equipment are used. Prolonged or repeated exposure to xylene may cause defatting, drying, and irritation of the skin, dermatitis, central nervous system (CNS) effects, heart muscle sensitization and arrhythmia, hearing loss, and brain, liver, kidney damage. Xylene overexposure may affect fetal development. Prolonged or repeated contact/exposure to aromatic petroleum distillates may cause defatting, drying, and irritation of the skin, dermatitis, and central nervous system (CNS) effects. Carbon black is classified by IARC to be a known animal carcinogen and a possible human carcinogen (Group 2B). Carbon black is encapsulated by resin and not expected to have adverse effects unless made airborne. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. The International Agency for Research on Cancer (IARC) has evaluated ethylbenzene and classified it as a possible human carcinogen (Group 2B) based on sufficient

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evidence for carcinogenicity in experimental animals, but inadequate evidence for cancer in exposed humans. Fillers are encapsulated and not expected to be released from product under normal conditions of use.

Target Organs: Eye, Lung, Liver, Kidney, Skin, Nerve

SECTION 3 - PRODUCT COMPOSITION

Chemical Name	CAS-No.	Weight %
Calcium Carbonate (Limestone)	1317-65-3	15.0 - 40.0
Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5336P	15.0 - 40.0
Clay	1332-58-7	10.0 - 30.0
Aromatic petroleum distillates	64742-95-6	7.0 - 13.0
Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5295P	5.0 - 10.0
1,2,4-Trimethylbenzene	95-63-6	3.0 - 7.0
Titanium dioxide	13463-67-7	1.0 - 5.0
Xylene	1330-20-7	1.0 - 5.0
1,3,5-Trimethylbenzene	108-67-8	1.0 - 5.0
Ethylbenzene	100-41-4	<1.0
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	<1.0
Carbon Black	1333-86-4	<1.0
Benzoyl chloride	98-88-4	<1.0
2,4-Toluene diisocyanate	584-84-9	<0.1
Toluene-2,6-Diisocyanate	91-08-7	<0.1

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

- Inhalation : Move to fresh air. If required, artificial respiration or administration of oxygen can be performed by trained personnel. Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
- Eye contact : Flush with water for at least 15 minutes while holding eye lids apart. Get medical attention immediately.
- Skin contact : Wash area of contact thoroughly with hand cleaner followed by soap and water. If irritation, rash or other disorders develop, get medical attention immediately.
- Ingestion : Do not induce vomiting unless advised by a physician. Call nearest Poison Control Center or Physician immediately.

SECTION 5 - FIRE FIGHTING MEASURES

- Flash point : 105 °F, 41 °C
- Method : Setaflash Closed Cup
- Lower explosion limit : 0.6 %(V) Solvent
- Upper explosion limit : 7 %(V) Solvent
- Autoignition temperature : Not available.
- Extinguishing media : If water fog is ineffective, use carbon dioxide, dry chemical or foam.
- Hazardous combustion products : Carbon monoxide and carbon dioxide can form. Smoke, fumes. Hydrocyanic acid and nitrogen oxides can form.

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- Protective equipment for firefighters : Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).
- Fire and explosion conditions : Product may ignite if heated in excess of its flash point. Closed container, may burst when exposed to extreme heat. Empty containers may contain ignitable vapors. Vapors may travel to sources of ignition and flashback.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use appropriate protective equipment. Avoid contact with material. Remove sources of ignition immediately. Stop flow of material if safe to do so. Contain spill and keep out of water courses. Ventilate area.

SECTION 7 - HANDLING AND STORAGE

Prevent inhalation of vapor, ingestion, and contact with skin eyes and clothing. Keep container closed when not in use. Precautions also apply to emptied containers. Change soiled work clothes frequently. Clean hands thoroughly after handling. Do not smoke, weld, generate sparks, or use flame near container. To prevent generation of static discharges, use bonding/grounding connection when pouring liquid. Extinguish all ignition sources including pilot lights, non-explosion proof motors and electrical equipment until vapors dissipate. Store under dry warehouse conditions away from heat and all ignition sources.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION
Personal protection equipment

- Respiratory protection : Wear appropriate, properly fitted NIOSH/MSHA approved respirator when airborne contaminant level(s) are expected to exceed exposure limits indicated on the MSDS. Select positive pressure supplied air respirator (TC19C or equivalent) for isocyanates.
- Hand protection : Use suitable impervious nitrile or neoprene gloves and protective apparel to reduce exposure.
- Eye protection : Wear appropriate eye protection. Wear chemical safety goggles and/or face shield to prevent eye contact. Do not wear contact lenses. Do not touch eyes with contaminated body parts or materials. Have eye washing facilities readily available.
- Skin and body protection : Prevent contact with shoes and clothing.
- Protective measures : Use professional judgment in the selection, care, and use.
- Engineering measures : Use only in well ventilated areas. Provide maximum ventilation in enclosed areas. Use local exhaust when the general ventilation is inadequate.

Exposure Limits

Chemical Name	CAS Number	Regulation	Limit	Form
Calcium Carbonate (Limestone)	1317-65-3	OSHA PEL:	5 mg/m3	Respirable fraction.
		OSHA PEL:	15 mg/m3	Total dust.
		ACGIH TWA:	3 mg/m3	Respirable particles.
		ACGIH TWA:	10 mg/m3	Inhalable particles.
		OSHA TWA:	15 mg/m3	Total dust.
		OSHA TWA:	5 mg/m3	Respirable fraction.

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<u>Chemical Name</u>	<u>CAS Number</u>	<u>Regulation</u>	<u>Limit</u>	<u>Form</u>
Clay	1332-58-7	ACGIH TWA: OSHA PEL: OSHA PEL: OSHA TWA: OSHA TWA: OSHA PEL: OSHA PEL:	2 mg/m3 15 mg/m3 5 mg/m3 15 mg/m3 5 mg/m3 5 mg/m3 15 mg/m3	Respirable fraction. Total dust. Respirable fraction. Total dust. Respirable fraction. Respirable fraction. Total dust.
1,2,4-Trimethylbenzene	95-63-6	ACGIH TWA:	25 ppm	
Titanium dioxide	13463-67-7	ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA:	10 mg/m3 15 mg/m3 15 mg/m3 5 mg/m3	Total dust. Total dust. Respirable fraction.
Xylene	1330-20-7	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 150 ppm 435 mg/m3	
1,3,5-Trimethylbenzene	108-67-8	ACGIH TWA:	25 ppm	
Ethylbenzene	100-41-4	ACGIH TWA: ACGIH STEL: OSHA PEL:	100 ppm 125 ppm 435 mg/m3	
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	OSHA TWA: OSHA TWA: OSHA PEL: OSHA PEL: ACGIH TWA:	0.1 mg/m3 0.3 mg/m3 15 mg/m3 5 mg/m3 0.025 mg/m3	Respirable. Total dust. Total dust. Respirable fraction. Respirable fraction.
Carbon Black	1333-86-4	ACGIH TWA: OSHA PEL: OSHA TWA: OSHA TWA:	3.5 mg/m3 3.5 mg/m3 15 mg/m3 5 mg/m3	Total dust. Respirable fraction.
2,4-Toluene diisocyanate	584-84-9	ACGIH TWA: ACGIH STEL:	0.005 ppm 0.02 ppm	
Toluene-2,6-Diisocyanate	91-08-7	ACGIH TWA: ACGIH STEL:	0.005 ppm 0.02 ppm	

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form	: Liquid solution
Color	: Gray
Odor	: Aromatic Solvent
pH	: Not available.
Vapour pressure	: Not available.
Vapor density	: Heavier than air

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Melting point/range	: Not available.
Freezing point	: Not available.
Boiling point/range	: 280 °F, 138 °C
Water solubility	: Negligible
Specific Gravity	: 1.344
% Volatile Weight	: 18 %

SECTION 10 - REACTIVITY / STABILITY

Substances to avoid	: Strong acids.Strong bases.Amines.Water or moisture.Alcohols.
Stability	: Material is stable under normal storage, handling, and use.
Hazardous polymerization	: Will not occur under normal conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Xylene, CAS-No.: 1330-20-7	
Acute oral toxicity (LD-50 oral)	4,300 mg/kg (Rat) 1,590 mg/kg (Mouse) 6,670 mg/kg (Rat) 3,523 - 8,600 mg/kg (Rat) 5,627 mg/kg (Mouse)
Acute inhalation toxicity (LC-50)	6,350 mg/l for 4 h (Rat) 3,907 mg/l for 6 h (Mouse) 8,000 mg/l for 4 h (Rat)
Ethylbenzene, CAS-No.: 100-41-4	
Acute oral toxicity (LD-50 oral)	5,460 mg/kg (Rat) 3,500 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	17,800 mg/kg (Rabbit)
Benzoyl chloride, CAS-No.: 98-88-4	
Acute oral toxicity (LD-50 oral)	2,460 mg/kg (Rat)
Acute dermal toxicity (LD-50 dermal)	790 mg/kg (Rabbit)
2,4-Toluene diisocyanate, CAS-No.: 584-84-9	
Acute oral toxicity (LD-50 oral)	5,800 mg/kg (Rat)
Acute inhalation toxicity (LC-50)	14 mg/l for 4 h (Rat) 10 mg/l for 4 h (Mouse) 13 mg/l for 4 h (Guinea pig) 11 mg/l for 4 h (Rabbit)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA Class	: D001: Reportable Quantity = 100 lbs. (Characteristic of ignitability)
This classification applies only to the material as it was originally produced.	
Disposal Method	: Subject to hazardous waste treatment, storage, and disposal requirements under RCRA. Recycle or incinerate waste at EPA approved facility or dispose of in compliance with federal, state and local regulations.

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SECTION 14 - TRANSPORTATION / SHIPPING DATA**CFR / DOT:**

Not Regulated

TDG:

Not Regulated

IMDG:

UN1139, COATING SOLUTION, 3, PG III

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

SECTION 15 - REGULATORY INFORMATION**North American Inventories:**

All components are listed or exempt from the TSCA inventory.

This product or its components are listed on, or exempt from the Canadian Domestic Substances List.

U.S. Federal Regulations:

SARA 313 Components	:	1,2,4-Trimethylbenzene	95-63-6
		Xylene	1330-20-7
		Ethylbenzene	100-41-4

SARA 311/312 Hazards	:	Acute Health Hazard
		Chronic Health Hazard
		Fire Hazard

OSHA Hazardous Components :

Calcium Carbonate (Limestone)	1317-65-3
Clay	1332-58-7
1,2,4-Trimethylbenzene	95-63-6
Titanium dioxide	13463-67-7
Xylene	1330-20-7
1,3,5-Trimethylbenzene	108-67-8
Ethylbenzene	100-41-4
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7
Carbon Black	1333-86-4
Benzoyl chloride	98-88-4
2,4-Toluene diisocyanate	584-84-9
Toluene-2,6-Diisocyanate	91-08-7

OSHA Status: Considered hazardous based on the	:	Irritant
		Sensitizer

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following criteria: Carcinogen

OSHA Flammability : II

Regulatory VOC (less water and exempt solvent) : 242 g/l

VOC Method 310 : 18 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:

Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

Carbon Black 1333-86-4

Benzoyl chloride 98-88-4

U.S. State Regulations:

MASS RTK Components	:	Calcium Carbonate (Limestone)	1317-65-3
		Clay	1332-58-7
		1,2,4-Trimethylbenzene	95-63-6
		Titanium dioxide	13463-67-7
		Xylene	1330-20-7
		1,3,5-Trimethylbenzene	108-67-8
		Crystalline Silica (Quartz)/ Silica Sand	14808-60-7
		2,4-Toluene diisocyanate	584-84-9
	Toluene-2,6-Diisocyanate	91-08-7	
Penn RTK Components	:	Calcium Carbonate (Limestone)	1317-65-3
		Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5336P
		Clay	1332-58-7
		Aromatic petroleum distillates	64742-95-6
		Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5295P
		1,2,4-Trimethylbenzene	95-63-6
		Titanium dioxide	13463-67-7
		Xylene	1330-20-7
	1,3,5-Trimethylbenzene	108-67-8	
	2,4-Toluene diisocyanate	584-84-9	
NJ RTK Components	:	Calcium Carbonate (Limestone)	1317-65-3
		Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5336P
		Clay	1332-58-7
		Aromatic petroleum distillates	64742-95-6
		Aromatic Polyisocyanate Resin	NJ TSRN# 51721300-5295P
		1,2,4-Trimethylbenzene	95-63-6
		Titanium dioxide	13463-67-7
		Xylene	1330-20-7
	Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	
	Carbon Black	1333-86-4	
	Benzoyl chloride	98-88-4	

Components under California Proposition 65:

WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm



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SECTION 16 - OTHER INFORMATION

HMIS Rating :

Health	2
Flammability	2
Reactivity	1
PPE	

0 = Minimum
1 = Slight
2 = Moderate
3 = Serious
4 = Severe

Further information:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

Prepared by: Rich Mikol

Legend

ACGIH - American Conference of Governmental Hygienists
 CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act
 DOT - Department of Transportation
 DSL - Domestic Substance List
 EPA - Environmental Protection Agency
 HMIS - Hazardous Materials Information System
 IARC - International Agency for Research on Cancer
 MSHA - Mine Safety Health Administration
 NDSL - Non-Domestic Substance List
 NIOSH - National Institute for Occupational Safety and Health
 NTP - National Toxicology Program
 OSHA - Occupational Safety and Health Administration

PEL - Permissible Exposure Limit
 RCRA - Resource Conservation and Recovery Act
 RTK - Right To Know
 SARA - Superfund Amendments and Reauthorization Act
 STEL - Short Term Exposure Limit
 TLV - Threshold Limit Value
 TSCA - Toxic Substances Control Act
 TWA - Time Weighted Average
 V - Volume
 VOC - Volatile Organic Compound
 WHMIS - Workplace Hazardous Materials Information System