SECTION 1 - PRODUCT IDENTIFICATION

Trade name : VULKEM 351 NF PART B 12 OZ
Product code : 153351 009

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

SECTION 2 - HAZARDS IDENTIFICATION

Emergency Overview
Clear to Yellow. Liquid. May cause slight irritation to the respiratory system. 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 slight irritation to the respiratory system.
Eyes : Slightly irritating. Direct contact may cause temporary redness and discomfort.
Ingestion : Toxic if swallowed. May cause gastrointestinal irritation, nausea, and vomiting.
Skin : May cause moderate irritation. Harmful if absorbed through skin.

Aggravated Medical Conditions
Pre-existing eye, skin and respiratory disorders may be aggravated by exposure.

Chronic Health Effects
Fillers are encapsulated and not expected to be released from product under normal conditions of use.

SECTION 3 - PRODUCT COMPOSITION

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl tin dilaurate</td>
<td>77-58-7</td>
<td>&gt; 60.0</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST AID MEASURES

Get immediate medical attention for any significant overexposure.

Inhalation : Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention.
Eye contact : Flush with water for 15 minutes. If irritation persists, get medical attention.
Skin contact : Clean area of contact thoroughly using 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 : 232 °C, 450 °F
Method : Tag Closed Cup
Lower explosion limit : Not available.
Upper explosion limit : Not available.
Autoignition temperature : Not available.
Extinguishing media : Carbon dioxide, dry chemical, foam.
Hazardous combustion products : Toxic fumes.
Protective equipment for firefighters : Water may be used to cool containers to minimize pressure build-up. Use accepted fire fighting techniques. Wear full firefighting protective clothing, including self-contained breathing apparatus (SCBA).

Fire and explosion conditions : This product not expected to ignite under normal conditions of use.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Stop flow. Contain spill. Keep out of water courses. Absorb spill in sand, earth or other suitable material. Transfer to appropriate container for disposal.

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. Store in sealed containers in a dry, ventilated warehouse location above freezing.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection equipment
Respiratory protection : Not required under normal conditions of use.
Hand protection : Use suitable impervious rubber or vinyl gloves and protective apparel to reduce exposure.
Eye protection : Wear appropriate eye protection. Chemical splash goggles.
Skin and body protection : Prevent contact with shoes and clothing.
Protective measures : Use professional judgment in the selection, care, and use.
Engineering measures : Use general ventilation and/or local exhaust to reduce the airborne contaminant concentration below the exposure limit listed in the MSDS

Exposure Limits
Material Safety Data Sheet

VULKEM 351 NF PART B 12 OZ

Version 2.0
REVISION DATE: 07/08/2012
Print Date 07/09/2012

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Regulation</th>
<th>Limit</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dibutyl tin dilaurate</td>
<td>77-58-7</td>
<td>ACGIH TWA:</td>
<td>0.1 mg/m³</td>
<td>as Sn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH STEL:</td>
<td>0.2 mg/m³</td>
<td>as Sn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>0.1 mg/m³</td>
<td>as Sn</td>
</tr>
</tbody>
</table>

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- Form: Liquid
- Color: Clear to Yellow
- Odor: Mild
- pH: Not available.
- Vapour pressure: Not available.
- Vapor density: Not available.
- Melting point/range: Not available.
- Freezing point: Not available.
- Boiling point/range: Not available.
- Water solubility: Insoluble
- Specific Gravity: 1.05 at 25 °C
- % Volatile Weight: 0 %

SECTION 10 - REACTIVITY / STABILITY

- Substances to avoid: Oxidizing agents, acids and bases.
- Decomposition products: This material may release toxic tin fumes if burned or heated to decomposition.
- Stability: Material is stable under normal storage, handling, and use.
- Hazardous polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Dibutyl tin dilaurate, CAS-No.: 77-58-7
Acute oral toxicity (LD-50 oral) 175 mg/kg (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method: As purchased, this product, when discarded, is not a listed or characteristic hazardous waste according to Federal regulations (40 CFR 261). Check local, regional, state or...
provincial regulations for applicable requirements for disposal. Any processing, using, alteration or chemical additions to the product, as purchased, may alter the disposal requirements. Under Federal regulations, it is the generator’s responsibility to determine if a waste is a hazardous waste. Empty containers may retain product residue. Do not reuse.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

CFR / DOT:

Not Regulated

TDG:

Not Regulated

IMDG:

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dibutyl Tin Dilaurate), 9, PG III, MARINE POLLUTANT

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 : None present or none present in regulated quantities.
SARA 311/312 Hazards : Acute Health Hazard
OSHA Hazardous Components :
Dibutyl tin dilaurate 77-58-7
OSHA Status: Considered hazardous based on the following criteria:
OSHA Flammability : IIIB
Regulatory VOC (less water and exempt solvent) : 0 g/l
VOC Method 310 : 0 %
U.S. State Regulations:

Penn RTK Components : Dibutyl tin dilaurate  77-58-7
NJ RTK Components : Dibutyl tin dilaurate  77-58-7

Components under California Proposition 65:
None known.

SECTION 16 - OTHER INFORMATION

HMIS Rating :

<table>
<thead>
<tr>
<th>Health</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

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
NDSDL - 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
SECTION 1 - PRODUCT IDENTIFICATION

Trade name : VULKEM 351 NF PART A SLATE GRAY 5 GAL(L)
Product code : 852713 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. 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. 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. 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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polysucyanate Resin</td>
<td>NJ TSRN# 51721300-5349P</td>
<td>40.0 - 70.0</td>
</tr>
<tr>
<td>Calcium Carbonate (Limestone)</td>
<td>1317-65-3</td>
<td>15.0 - 40.0</td>
</tr>
</tbody>
</table>
Material Safety Data Sheet

VULKEM 351 NF PART A SLATE GRAY 5 GAL(L)

Version 3.0
REVISION DATE: 07/08/2012

Print Date 12/06/2013

Propylene carbonate 108-32-7 15.0 - 40.0
Titanium dioxide 13463-67-7 1.0 - 5.0
Isophorone Disocyanate 4098-71-9 - <1.0
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7 - <1.0

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 : > 200 °F, > 93 °C
Method : Setaflash Closed Cup
Lower explosion limit : Not available.
Upper explosion limit : Not available.
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.

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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>Regulation</th>
<th>Limit</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Carbonate (Limestone)</td>
<td>1317-65-3</td>
<td>OSHA PEL:</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TWA:</td>
<td>3 mg/m3</td>
<td>Respirable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TWA:</td>
<td>10 mg/m3</td>
<td>Inhalable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA TWA:</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA TWA:</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Titanium dioxide</td>
<td>13463-67-7</td>
<td>ACGIH TWA:</td>
<td>10 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA TWA:</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA TWA:</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td>Isophorone Diisocyanate</td>
<td>4098-71-9</td>
<td>ACGIH TWA:</td>
<td>0.005 ppm</td>
<td></td>
</tr>
<tr>
<td>Crystalline Silica (Quartz)/ Silica Sand</td>
<td>14808-60-7</td>
<td>OSHA TWA:</td>
<td>0.1 mg/m3</td>
<td>Respirable.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA TWA:</td>
<td>0.3 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OSHA PEL:</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH TWA:</td>
<td>0.025 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid
Color: Gray
Odor: Solvent
Material Safety Data Sheet

VULKEM 351 NF PART A SLATE GRAY 5 GAL(L)

Version 3.0

REVISION DATE: 07/08/2012

Print Date 12/06/2013

pH : Not available.
Vapour pressure : Not available.
Vapor density : Heavier than air
Melting point/range : Not available.
Freezing point : Not available.
Boiling point/range : Not available.
Water solubility : Negligible
Specific Gravity : 1.344
% Volatile Weight : 6 %

SECTION 10 - REACTIVITY / STABILITY

Stability : Material is stable under normal storage, handling, and use.
Hazardous polymerization : Will not occur under normal conditions.

SECTION 11 - TOXICOLOGICAL INFORMATION

Isophorone Diisocyanate, CAS-No.: 4098-71-9

Acute oral toxicity (LD-50 oral) 2,500 mg/kg (Mouse) 1,000 mg/kg (Rat)
Acute inhalation toxicity (LC-50) 0.033 mg/l for 4 h (Rat) 0.123 mg/l for 4 h (Rat)
Acute dermal toxicity (LD-50 dermal) 1,060 mg/kg (Rat)

SECTION 12 - ECOLOGICAL INFORMATION

No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

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.

SECTION 14 - TRANSPORTATION / SHIPPING DATA

CFR / DOT:

Not Regulated

TDG:

Not Regulated
IMDG:
Not Regulated

SECTION 15 - REGULATORY INFORMATION

North American Inventories:
This product or its components are listed on, or exempt from the Canadian Domestic Substances List. 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 : None present or none present in regulated quantities.
SARA 311/312 Hazards : Acute Health Hazard Chronic Health Hazard

OSHA Hazardous Components :
Calcium Carbonate (Limestone) 1317-65-3
Titanium dioxide 13463-67-7
Isophorone Diisocyanate 4098-71-9
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

OSHA Status: Considered hazardous based on the following criteria:

OSHA Flammability : Not Regulated

Regulatory VOC (less water and exempt solvent) : 90 g/l
VOC Method 310 : 6 %

Chemical is listed as an IARC, NTP, OSHA, or ACGIH Carcinogen:
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

U.S. State Regulations:

MASS RTK Components : Calcium Carbonate (Limestone) 1317-65-3
Titanium dioxide 13463-67-7
Isophorone Diisocyanate 4098-71-9
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7

Penn RTK Components : Polysisocyanate Resin NJ TSRN# 51721300-5349P
Calcium Carbonate (Limestone) 1317-65-3
Propylene carbonate 108-32-7
Titanium dioxide 13463-67-7

NJ RTK Components : Polysisocyanate Resin NJ TSRN# 51721300-5349P
Calcium Carbonate (Limestone) 1317-65-3
Propylene carbonate 108-32-7
Titanium dioxide 13463-67-7
Crystalline Silica (Quartz)/ Silica Sand 14808-60-7
Components under California Proposition 65:
WARNING! Contains chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm

SECTION 16 - OTHER INFORMATION

HMIS Rating :

<table>
<thead>
<tr>
<th>Health</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability</td>
<td>1</td>
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<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>PPE</td>
<td>0</td>
</tr>
</tbody>
</table>

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
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STEL - Short Term Exposure Limit
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TSCA - Toxic Substances Control Act
TWA - Time Weighted Average
V - Volume
VOC - Volatile Organic Compound
WHMIS - Workplace Hazardous Materials Information System