SECTION 1. IDENTIFICATION

Product name : Sikaflex®-511
Company name : Sika Corporation

201 Polito Avenue
Lyndhurst, NJ 07071
USA
www.sikausa.com

Telephone : (201) 933-8800
Telefax : (201) 804-1076
E-mail address : ehs@sika-corp.com
Emergency telephone : CHEMTREC: 800-424-9300
INTERNATIONAL: 703-527-3887

Recommended use of the chemical and restrictions on use : For further information, refer to product data sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Carcinogenicity (Inhalation) : Category 1A

GHS label elements
Hazard pictograms :

Signal Word : Danger
Hazard Statements : H350 May cause cancer by inhalation.
Precautionary Statements : Prevention:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container to an approved waste disposal plant.

Additional Labeling
There are no ingredients with unknown acute toxicity used in a mixture at a concentration \( \geq 1\% \).

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

<table>
<thead>
<tr>
<th>Components</th>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Classification</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>trimethoxyvinylsilane</td>
<td>2768-02-7</td>
<td>Flam. Liq. 3; H226</td>
<td>( \geq 1 - &lt; 5 )</td>
</tr>
<tr>
<td></td>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>Carc. 1A; H350i;</td>
<td>( \geq 0.1 - &lt; 1 )</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT RE 1; H372;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3; H335</td>
<td></td>
</tr>
</tbody>
</table>

Actual concentration is withheld as a trade secret.

SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled: Move to fresh air.

In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.

In case of eye contact: Remove contact lenses. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

If swallowed: Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed: No known significant effects or hazards. No information available. May cause cancer by inhalation.
Notes to physician : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Deny access to unprotected persons.

Environmental precautions : Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Avoid exceeding the given occupational exposure limits (see section 8). For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products.

Conditions for safe storage : Store in original container. Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Store in accordance with local regulations.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quartz (SiO2)</td>
<td>14808-60-7</td>
<td>TWA (Respirable particulate matter)</td>
<td>0.025 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable dust)</td>
<td>0.05 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable)</td>
<td>10 mg/m³ / %SiO2+2</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable)</td>
<td>250 mppcf / %SiO2+5</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>0.1 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>0.025 mg/m³ (Silica)</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>0.1 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>0.025 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>0.025 mg/m³ (Silica)</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Engineering measures: Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal protective equipment

Respiratory protection: Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration.
(gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Hygiene measures : Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Color : various

Odor : mild

Odor Threshold : No data available

pH : Not applicable

Melting point/range / Freezing point : No data available
Boiling point/boiling range : No data available

Flash point : ca. 221 °F / 105 °C (Method: closed cup)

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : 0.01 hpa

Relative vapor density : No data available
Density: ca. 1.44 g/cm³ (74.7 °F / 23.7 °C)

Solubility:
- Water solubility: insoluble
- Solubility in other solvents: No data available

Partition coefficient: n-octanol/water: No data available
Autoignition temperature: No data available
Decomposition temperature: No data available

Viscosity:
- Viscosity, dynamic: No data available
- Viscosity, kinematic: 770000 mm²/s

Explosive properties: No data available
Oxidizing properties: No data available

Volatile organic compounds (VOC) content: 8 g/l

SECTION 10. STABILITY AND REACTIVITY

Reactivity: No dangerous reaction known under conditions of normal use.
Chemical stability: The product is chemically stable.
Possibility of hazardous reactions: Stable under recommended storage conditions.
Conditions to avoid: No data available
Incompatible materials: No data available
Hazardous decomposition products: No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Components:
trimethoxyvinylsilane:
Acute oral toxicity: LD50 Oral (Rat): ca. 7,120 mg/kg
Acute inhalation toxicity: LC50: ca. 16.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity: LD50: 3,540 mg/kg

**Skin corrosion/irritation**
Not classified based on available information.

**Serious eye damage/eye irritation**
Not classified based on available information.

**Respiratory or skin sensitization**

**Skin sensitization**
Not classified based on available information.

**Respiratory sensitization**
Not classified based on available information.

**Germ cell mutagenicity**
Not classified based on available information.

**Carcinogenicity**
May cause cancer by inhalation.

**IARC**
- Group 1: Carcinogenic to humans Quartz (SiO2) 14808-60-7  
  (Silica dust, crystalline)  
- Group 2B: Possibly carcinogenic to humans  
  titanium dioxide 13463-67-7

**OSHA**
- OSHA specifically regulated carcinogen Quartz (SiO2) 14808-60-7  
  (crystalline silica)

**NTP**
- Known to be human carcinogen Quartz (SiO2) 14808-60-7  
  (Silica, Crystalline (Respirable Size))

**Reproductive toxicity**
Not classified based on available information.

**STOT-single exposure**
Not classified based on available information.

**STOT-repeated exposure**
Not classified based on available information.

**Aspiration toxicity**
Not classified based on available information.

**Further information**

**Product:**
Remarks: Titanium dioxide (13463-67-7)
In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequent pulmonary overload and inflammation. The potential for these adverse health effects appears to be closely related to the particle size and the amount of the exposed surface area that comes into contact with the lung. However, tests with other laboratory animals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that causes lung cancer. Epidemiological studies do not suggest an increased risk of cancer in humans from occupational exposure to titanium dioxide. Titanium dioxide has been characterized by IARC as possibly carcinogenic to humans (Group 2B) through inhalation (not ingestion). It has not been characterized as a potential carcinogen by either NTP or OSHA.

Quartz (14808-60-7): This classification is relevant when exposed to Quartz (silicon dioxide) in dust or powder form only, including cured product that is subject to sanding, grinding, cutting, or other surface preparation activities.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product:
Additional ecological information: Do not empty into drains; dispose of this material and its container in a safe way. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

TSCA list: All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards: Carcinogenicity

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

California Prop 65

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH: USA. ACGIH Threshold Limit Values (TLV)
OSHA P0 : USA, OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA : 8-hour, time-weighted average
OSHA P0 / TWA : 8-hour time weighted average
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

Notes to Reader
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