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Product name	:	Sikafloor <sup>®</sup> -260 ESD Part A
Supplier	:	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.

#### 2. Hazards identification

#### **GHS Classification**

Skin irritation, Category 2 Eye irritation, Category 2A Skin sensitization, Category 1 Carcinogenicity, Category 1A (Inhalation) Specific target organ systemic toxicity single exposure, Category 3, Respiratory system

Specific target organ systemic toxicity - repeated exposure, Category 1, Lungs

H315: Causes skin irritation.
H319: Causes serious eye irritation.
H317: May cause an allergic skin reaction.
H350i: May cause cancer by inhalation.
H335: May cause respiratory irritation.

H372: Causes damage to organs through prolonged or repeated exposure.

#### **GHS** label elements

Hazard pictograms	
Signal Word	: Danger
Hazard Statements	<ul> <li>H315 Causes skin irritation.</li> <li>H317 May cause an allergic skin reaction.</li> <li>H319 Causes serious eye irritation.</li> <li>H335 May cause respiratory irritation.</li> <li>H350i May cause cancer by inhalation.</li> <li>H372 Causes damage to organs (Lungs) through prolonged or</li> </ul>

repeated exposure.

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Precautionary Statements :	<ul> <li>Prevention:</li> <li>P201 Obtain special instructions before use.</li> <li>P202 Do not handle until all safety precautions have been read and understood.</li> <li>P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.</li> <li>P264 Wash skin thoroughly after handling.</li> <li>P270 Do not eat, drink or smoke when using this product.</li> <li>P271 Use only outdoors or in a well-ventilated area.</li> <li>P272 Contaminated work clothing must not be allowed out of the workplace.</li> <li>P280 Wear protective gloves/ eye protection/ face protection.</li> <li>P281 Use personal protective equipment as required.</li> <li>Response:</li> <li>P302 + P352 IF ON SKIN: Wash with plenty of soap and water.</li> <li>P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P308 + P313 IF exposed or concerned: Get medical advice/ attention.</li> <li>P337 + P313 If skin irritation or rash occurs: Get medical advice/ attention.</li> <li>P337 + P313 If eye irritation persists: Get medical advice/ attention.</li> <li>P337 + P313 If eye irritation persists: Get medical advice/ attention.</li> <li>P337 + P313 If eye irritation persists: Get medical advice/ attention.</li> <li>P337 + P313 If optimized clothing and wash before reuse.</li> <li>Storage:</li> <li>P405 Store locked up.</li> <li>P405 Store locked up.</li> <li>P501 Dispose of contents/ container to an approved waste disposal plant.</li> </ul>
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See Section 11 for more detailed information on health effects and symptoms. There are no hazards not otherwise classified that have been identified during the classification process.

There are no ingredients with unknown acute toxicity used in a mixture at a concentration >= 1%.

#### 3. Composition/information on ingredients

#### Hazardous ingredients

Chemical name	CAS-No.	Concentration (%)
bisphenol-A-(epichlorhydrin) epoxy resin	25068-38-6	>= 25 - < 50 %
Quartz (SiO2)	14808-60-7	>= 25 - < 50 %
bisphenol-F-(epichlorhydrin) epoxy resin	28064-14-4	>= 5 - < 10 %
oxirane, mono[(C12-14-	68609-97-2	>= 2 - < 5 %
alkyloxy)methyl]derivatives		
bisphenol-F-(epichlorhydrin) epoxy resin	9003-36-5	>= 1 - < 2 %
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether	3101-60-8	>= 1 - < 2 %

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures	
If inhaled	: Move to fresh air. Consult a physician after significant exposure.
In case of skin contact	<ul> <li>Take off contaminated clothing and shoes immediately.</li> <li>Wash off with soap and plenty of water.</li> <li>If symptoms persist, call a physician.</li> </ul>
In case of eye contact	<ul> <li>Immediately flush eye(s) with plenty of water.</li> <li>Remove contact lenses.</li> <li>Keep eye wide open while rinsing.</li> <li>If eye irritation persists, consult a specialist.</li> </ul>
If swallowed	<ul> <li>Clean mouth with water and drink afterwards plenty of water.</li> <li>Do not induce vomiting without medical advice.</li> <li>Do not give milk or alcoholic beverages.</li> <li>Never give anything by mouth to an unconscious person.</li> <li>Obtain medical attention.</li> </ul>
Most important symptoms and effects, both acute and delayed	: irritant effects sensitizing effects carcinogenic effects
	Cough Respiratory disorder Allergic reactions Excessive lachrymation Erythema Dermatitis See Section 11 for more detailed information on health effects and symptoms.
	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause cancer by inhalation. Causes damage to organs through prolonged or repeated exposure.
Protection of first-aiders	: Move out of dangerous area. Consult a physician. Show this material safety data sheet to the doctor in attendance.
Notes to physician	: Treat symptomatically.

#### 5. Fire-fighting measures

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: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<ul> <li>Collect contaminated fire extinguishing water separately. This must not be discharged into drains.</li> <li>Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.</li> </ul>
: In the event of fire, wear self-contained breathing apparatus.
<ul> <li>Use personal protective equipment. Deny access to unprotected persons.</li> <li>Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities. Local authorities should be advised if significant spillages cannot be contained.</li> </ul>
: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

#### 7. Handling and storage

Advice on safe handling	<ul> <li>Avoid exceeding the given occupational exposure limits (see section 8).</li> <li>Do not get in eyes, on skin, or on clothing.</li> <li>For personal protection see section 8.</li> <li>Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.</li> <li>Smoking, eating and drinking should be prohibited in the application area.</li> <li>Follow standard hygiene measures when handling chemical products.</li> </ul>
Conditions for safe storage	<ul> <li>Prevent unauthorized access.</li> <li>Store in original container.</li> <li>Keep in a well-ventilated place.</li> <li>Containers which are opened must be carefully resealed and kept upright to prevent leakage.</li> <li>Observe label precautions.</li> <li>Store in accordance with local regulations.</li> </ul>
Materials to avoid	: No data available





#### 8. Exposure controls/personal protection

Component	CAS-No.	Basis **	Value	Exposure limit(s)* / Form of exposure
Quartz (SiO2)	14808-60-7	OSHA Z-3	TWA	10 mg/m3 / %SiO2+2 respirable
		OSHA Z-3	TWA	250 mppcf / %SiO2+5 respirable
		OSHA PO	TWA	0.1 mg/m3 Respirable fraction
		ACGIH	TWA	0.025 mg/m3 Respirable fraction
		OSHA Z-1	TWA	0.05 mg/m3 Respirable dust
barium sulfate	7727-43-7	OSHA PO	TWA	10 mg/m3 Total
		OSHA P0	TWA	5 mg/m3 Respirable fraction
		OSHA Z-1	TWA	15 mg/m3 total dust
		OSHA Z-1	TWA	5 mg/m3 respirable fraction
		ACGIH	TWA	5 mg/m3 Inhalable fraction
		OSHA P0	TWA	10 mg/m3 Total dust
		OSHA P0	TWA	5 mg/m3 respirable dust fraction

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\*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

#### \*\*<u>Basis</u>

ACGIH. Threshold Limit Values (TLV) OSHA P0. Table Z-1, Limit for Air Contaminat (1989 Vacated Values) OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant OSHA P2. Permissible Exposure Limits (PEL), Table Z-2 OSHA Z3. Table Z-3, Mineral Dust

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 Remarks :	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	

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	:	Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash thoroughly after handling.

necessary.

#### 9. Physical and chemical properties

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Appearance Color	:	liquid various
Odor	:	ether-like
Odor Threshold	:	No data available
Flash point	:	266 °F (130 °C)
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Lower explosion limit (Vol%)	:	No data available
Upper explosion limit (Vol%)	:	No data available
Flammability (solid, gas)	:	No data available
Oxidizing properties	:	No data available
рН	:	Note: Not applicable
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Vapor pressure	:	0.001 mmHg (0.001 hpa)
Density	:	ca.1.5 g/cm3 at 73 °F (23 °C)
Water solubility	:	Note: soluble
Partition coefficient: n- octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	> 20.5 mm2/s at  104 °F (40 °C)
Relative vapor density	:	No data available
Evaporation rate	:	No data available
Burning rate	:	No data available
Volatile organic compounds (VOC) content	:	4 g/l A+B Combined

### 10. Stability and reactivity

Reactivity

: No dangerous reaction known under conditions of normal use.

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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

#### 11. Toxicological information

Acute toxicity Not classified based on availab	ble information.
Ingredients:	
bisphenol-A-(epichlorhydrin	) epoxy resin:
Acute oral toxicity	: LD50 Oral (Rat): > 5,000 mg/kg
Acute dermal toxicity	: LD50 Dermal (Rabbit): > 20,000 mg/kg
bisphenol-F-(epichlorhydrin)	epoxy resin:
Acute oral toxicity	: LD50 Oral (Rat): > 5,000 mg/kg
p-tert-butylphenyl 1-(2,3-epo	vy)nronyl ether:
Acute oral toxicity	: LD50 Oral (Rat): > 5,000 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 3,466 mg/l Exposure time: 4 h
	Test atmosphere: dust/mist
Acute dermal toxicity	: LD50 Dermal (Rabbit): 6,000 mg/kg
Skin corrosion/irritation	
Causes skin irritation.	
Serious eye damage/eye irrit	ation
Causes serious eye irritation.	
Respiratory or skin sensitiza	ation
Skin sensitization: May cause	
Respiratory sensitization: Not	classified based on available information.
Germ cell mutagenicity	
Not classified based on availab	ble information.
Reproductive toxicity	
Not classified based on availab	ble information.

#### STOT-single exposure

May cause respiratory irritation.

#### STOT-repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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Aspiration toxicity



Not classified based on availab	ble information.	
Carcinogenicity	~	
May cause cancer by inhalation	Group 1: Carcinogenic to huma	ans
	Quartz (SiO2) Group 2B: Possibly carcinogen	14808-60-7 ic to humans
	titanium dioxide Carbon black	13463-67-7 1333-86-4
NTP	Known to be human carcinoge	n
Carbon black (1333-86-4)	Quartz (SiO2)	14808-60-7

Animal Toxicity: Rat, oral, duration 2 year Effect: no tumors

Mouse, oral, duration 2 years Effect: no tumors

Mouse, dermal, duration 18 months Effect: no skin tumors

Rat, inhalation, duration 2 years Target organ: lungs Effect: inflammation, fibrosis, tumors

Note: Tumors in the rat lung are considered to be related to the "particle overload phenomenon" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific. Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.

Mortality studies (human data): A study on carbon black production workers in the UK (Sorahan, 2001) found an increased risk of lung cancer in two of the five plant studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorohan, 2001 (UK study) found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (DEII, 2006), Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010).

Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington.

Overall, as a result of these detailed investigations, no causative link between carbon black



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exposure and cancer risk in humans has been demonstrated.

**IARC CANCER CLASSIFICATION:** In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans" (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

**ICGIH CANCER CLASSIFICATION:** Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

**ASSESSMENT:** Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rats tumors are a result of a secondary non-genotoxic mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity - Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase the risk to carcinogenicity.

Titanium dioxide (13463-67-7)

In lifetime inhalation studies of rats, airborne respirable-size titanium dioxide particles have seen shown to cause an increase in lung tumors at concentrations associated with substantial particle lung burdens and consequential 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 aninals such as mice and hamsters, indicate that rats are significantly more susceptible to the pulmonary overload and inflammation that cause lung cancer. Epidemiology studies do no 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.

#### 12. Ecological information

Other 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.
	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. May be harmful to the environment if released in large quantities.

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Water polluting material.

#### Component:

bisphenol-A- (epichlorhydrin) epoxy resin	25068-38-6	<u>Toxicity to fish:</u> LC50 Species: Oncorhynchus mykiss (rainbow trout) Dose: 2 mg/l Exposure time: 96 h
		Toxicity to daphnia and other aquatic invertebrates: EC50 Species: Daphnia magna (Water flea) Dose: 1.8 mg/l Exposure time: 48 h

#### 13. Disposal considerations

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

#### 14. Transport information

#### **DOT** Not regulated

IATA UN number Description of the goods Class Packing group Labels Packing instruction (cargo aircraft) Packing instruction	3082 Environmentally hazardous substance, liquid, n.o.s. (bisphenol-A-(epichlorhydrin) epoxy resin) 9 III 9 964
(passenger aircraft) Packing instruction (passenger aircraft)	Y964
IMDG UN number Description of the goods	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (bisphenol-A-(epichlorhydrin) epoxy resin)

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Class	9
Packing group	III
Labels	9
EmS Number 1	F-A
EmS Number 2	S-F
Marine pollutant	yes

IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

#### Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable

#### 15. Regulatory information

: 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.

#### SARA304 Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards :	Chronic Health Hazard Skin corrosion or irritation Serious eye damage or eye irritation Respiratory or skin sensitization Carcinogenicity Specific target organ toxicity (single or repeated exposure)
SARA 302 :	This material does not contain any components with a section 302 EHS TPQ.
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	
Ozone-Depletion Potential	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

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

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

California Prop 65

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

#### 16. Other information

**HMIS Classification** 

Health	*	3
Flammability		1
Physical Hazard		0
Personal Protect	ion	X

**Caution:** HMIS® rating is based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® rating is not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating is to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). Please note HMIS® attempts to convey full health warning information to all employees.

#### Notes to Reader

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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