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1. Identification

Product name : Sikagard® Duroplast® EE Part A

Supplier : Sika Corporation

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USA

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Recommended use of the chemical and restrictions on

use

: For further information, refer to product data sheet.

2. Hazards identification

GHS Classification

Serious eye damage, Category 1 Skin sensitization, Category 1 Carcinogenicity, Category 1A (Inhalation) Specific target organ systemic toxicity repeated exposure, Category 1, Lungs H318: Causes serious eye damage. H317: May cause an allergic skin reaction. H350i: May cause cancer by inhalation. H372: Causes damage to organs through

prolonged or repeated exposure.

GHS label elements

Hazard pictograms







Signal Word : Danger

Hazard Statements : H317 May cause an allergic skin reaction.

H318 Causes serious eye damage. H350i May cause cancer by inhalation.

H372 Causes damage to organs (Lungs) through prolonged or

repeated exposure.

Precautionary Statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P260 Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.



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P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/ eye protection/ face protection. P281 Use personal protective equipment as required.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P310 Immediately call a POISON CENTER/doctor.

P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

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

Warning

: Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

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 (%)
Fatty acids, C18-unsatd., dimers, reaction products with polyethylenepolyamines	68410-23-1	>= 5 - < 10 %
Quartz (SiO2)	14808-60-7	>= 5 - < 10 %
1-propoxypropan-2-ol	1569-01-3	>= 1 - < 2 %
4-hydroxy-4-methylpentan-2-one	123-42-2	>= 1 - < 2 %
triethylenetetramine	112-24-3	>= 0.1 - < 1 %

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



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If inhaled : Move to fresh air.

Consult a physician after significant exposure.

In case of skin contact : Take off contaminated clothing and shoes immediately.

> Wash off with soap and plenty of water. If symptoms persist, call a physician.

In case of eye contact : Small amounts splashed into eyes can cause irreversible

tissue damage and blindness.

In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses.

Keep eye wide open while rinsing.

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.

Obtain medical attention.

Most important symptoms and effects, both acute and delayed

: sensitizing effects carcinogenic effects

> Allergic reactions Excessive lachrymation

See Section 11 for more detailed information on health effects

and symptoms.

May cause an allergic skin reaction. Causes serious eye damage. 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

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Specific extinguishing

methods

: 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.



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6. Accidental release measures

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

: 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.

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.

7. Handling and storage

Advice on safe handling

: Avoid exceeding the given occupational exposure limits (see

section 8).

Do not get in eyes, on skin, or on clothing. For personal protection see section 8.

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.

Smoking, eating and drinking should be prohibited in the

application area.

Follow standard hygiene measures when handling chemical

products.

Conditions for safe storage

Prevent unauthorized access.

Store in original container.

Keep container tightly closed in a dry and well-ventilated

olace.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Store in accordance with local regulations.

Protect from frost.

Prevent unauthorized access. Store in original container.

Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Store in accordance with local regulations.

Materials to avoid : No data available

8. Exposure controls/personal protection



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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 P0	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
4-hydroxy-4- methylpentan-2-one	123-42-2	ACGIH	TWA	50 ppm
		OSHA Z-1	TWA	50 ppm 240 mg/m3
		OSHA P0	TWA	50 ppm 240 mg/m3

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

**Basis

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

: Use a properly fitted NIOSH approved air-purifying or air-fed Respiratory protection

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



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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

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 : Avoid contact with skin, eyes and clothing.

Wash hands before breaks and immediately after handling the

product.

amber

Remove contaminated clothing and protective equipment

before entering eating areas. Wash thoroughly after handling.

9. Physical and chemical properties

Color

Appearance : liquid

Odor : amine-like

Odor Threshold : No data available

Flash point : $> 212 \,^{\circ}\text{F} \, (100 \,^{\circ}\text{C})$

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

pH : > 6

Melting point/range / : No data available

Freezing point

Boiling point/boiling range : No data available



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Vapor pressure : 17 mmHg (23 hpa)

Density : 1.486 g/ml

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

65 g/l

A+B Combined

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

11. Toxicological information

Acute toxicity

Not classified based on available information.

Components:

triethylenetetramine:

Acute oral toxicity : LD50 Oral (Rat): 1,716 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): 1,465 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Causes serious eye damage.



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Respiratory or skin sensitization

Skin sensitization: May cause an allergic skin reaction.

Respiratory sensitization: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT-single exposure

Not classified based on available information.

STOT-repeated exposure

Causes damage to organs (Lungs) through prolonged or repeated exposure.

Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Aspiration toxicity

Not classified based on available information.

Carcinogenicity

May cause cancer by inhalation.

IARC Group 1: Carcinogenic to humans

> Quartz (SiO2) 14808-60-7 Group 2B: Possibly carcinogenic to humans

> titanium dioxide 13463-67-7

NTP Known to be human carcinogen

> Quartz (SiO2) 14808-60-7

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.

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Component:

Fatty acids, C18-unsatd.,

dimers, reaction products

with

polyethylenepolyamines

68410-23-1 <u>Toxicity to fish Chronic toxicity:</u>

LC50

Species: Oncorhynchus mykiss (rainbow trout)

Concentration: 1.00 - 10.00 mg/l

Exposure time: 96 d

triethylenetetramine 112-24-3 <u>Toxicity to fish:</u>

LC50

Species: Pimephales promelas (fathead minnow)

Dose: > 100 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates:

EC50

Species: Daphnia Dose: 10 - 100 mg/l Exposure time: 48 h

Toxicity to algae:

EC50

Species: Pseudokirchneriella subcapitata (green algae)

Dose: 10 - 100 mg/l Exposure time: 72 h

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.

14. Transport information

DOT

Not dangerous goods

IATA

Not dangerous goods

IMDG

Not dangerous goods

Special precautions for user

No data available

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable



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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.

SARA304 Reportable Quantity

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

SARA 311/312 Hazards : Chronic Health Hazard

> 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

This product neither contains, nor was manufactured with a **Potential** 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).

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 – www.P65Warnings.ca.gov

16. Other information



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HMIS Classification



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

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