SAFETY DATA SHEET

Sikaflex®-215

Version	Revision Date:	SDS Number (Internal):	Date of last issue: 03.05.2022
3.0	23.05.2024	100000000563	Date of first issue: 22.12.2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sikaflex®-215

Recommended use of the chemical and restrictions on use

Product use : Sealant/adhesive

Manufacturer or supplier's details

Company : Sika Korea Ltd.
724, Anseongmatchum-daero
Miyang-myeon
Anseong-si
Gyeonggi-do
Korea

Telephone : +82-31-8056-7777

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2. HAZARDS IDENTIFICATION

GHS Classification

Acute toxicity (Inhalation) : Category 1

Serious eye damage/eye irritation : Category 2

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

Specific target organ toxicity - repeated exposure : Category 2

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Lungs)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H351 Suspected of causing cancer.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

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 mist or vapours.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284 Wear respiratory protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
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.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container according to waste-related laws

Other hazards which do not result in classification

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	Common Name	CAS-No.	Concentration (% w/w)
1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich	68515-49-1	>= 20 - < 25
Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,3-diisocyanatomethylbenzene	Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,3-diisocyanatomethylbenzene	57516-88-8	>= 10 - < 15
Titanium dioxide (> 10 µm)	Titanium dioxide (> 10 µm)	13463-67-7	>= 1 - < 5
Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-	Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-	77703-56-1	>= 2.5 - < 5
Hardener LH (1,6-Hexanedialdimine)	Hardener LH (1,6-Hexanedialdimine)	613222-52-9	>= 1 - < 3
Hexamethylene-1,6-diisocyanate homopolymer	Hexamethylene-1,6-diisocyanate homopolymer	28182-81-2	0 - < 1
4,4`-Methylenediphenyl diisocyanate, oligomers	4,4`-Methylenediphenyl	25686-28-6	>= 0.1 - < 1

	diisocyanate, oligomers		
4,4'-methylenediphenyl diisocyanate	4,4'-methylenediphenyl diisocyanate	101-68-8	>= 0.1 - < 1
Quartz (SiO2)	Quartz (SiO2)	14808-60-7	0 - < 1

4. FIRST AID MEASURES

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

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

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.

If inhaled : Move to fresh air.
Consult a physician after significant exposure.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
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 : irritant effects
sensitising 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 irritation.
Fatal if inhaled.
Suspected of causing cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

Notes to physician : Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable and unsuitable extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous combustion products	:	No hazardous combustion products are known
Specific extinguishing methods	:	Standard procedure for chemical fires.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Deny access to unprotected persons.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system.
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 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). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation 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	:	Keep container tightly closed in a dry and well-ventilated place. Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Titanium dioxide (> 10 µm)	13463-67-7	TWA	10 mg/m3	KR OEL
	Further information: Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1			
4,4`-Methylenediphenyl diisocyanate, oligomers	25686-28-6	TWA	0.005 ppm	KR OEL
	Further information: Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1			
		TWA	0.005 ppm	ACGIH
		TWA	0.005 ppm	ACGIH
4,4'-methylenediphenyl diisocyanate	101-68-8	TWA	0.005 ppm	KR OEL
	Further information: Limited evidence of carcinogenicity in humans or animals, which is not sufficiently convincing to place the substance in Category 1			
		TWA	0.005 ppm	KR PEL
		TWA	0.005 ppm	ACGIH
Quartz (SiO2)	14808-60-7	TWA (Respirable fraction)	0.05 mg/m3	KR OEL
	Further information: Sufficient evidence of carcinogenicity in humans			
		TWA (Respirable particulate matter)	0.025 mg/m3	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3	ACGIH
		TWA (Respirable particulate matter)	0.025 mg/m3 (Silica)	ACGIH

Other ingredients, which are listed in section 3 but not listed in this section, do not have established occupational exposure limit values.

Personal protective equipment. Among the following personal protective equipment, the PPEs which require safety certification need to be certified by KOSHA.

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. The filter class for the respirator must be suitable for the maximum expected contaminant concentration

(gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Eye protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.
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.
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	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	paste
Colour	:	various
Odour	:	slight
Odour Threshold	:	No data available
pH	:	Not applicable substance/mixture is non-soluble (in water)
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available
Flash point	:	> 101 °C (214 °F) (Method: closed cup)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available

Upper/lower flammability or explosive limits

Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available

Vapour pressure	:	0.01 hPa
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Density	:	ca. 1.38 g/cm3 (20 °C)
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	ca. 100,000 mPa.s (20 °C (68 °F))
Viscosity, kinematic	:	> 20.5 mm2/s (40 °C (104 °F))
Explosive properties	:	No data available
Oxidizing properties	:	No data available

10. STABILITY AND REACTIVITY

Chemical stability and possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use. The product is chemically stable. No hazards to be specially mentioned.
Conditions to avoid	:	No data available
Incompatible materials	:	No data available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : No data available

Health hazard information

Acute toxicity

Fatal if inhaled.

Components:

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Acute oral toxicity	:	LD50 Oral (Rat): > 2,000 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 2,000 mg/kg

Method: OECD Test Guideline 402

Hexamethylene-1,6-diisocyanate homopolymer:

Acute oral toxicity	:	LD50 Oral (Rat): > 2,500 mg/kg
Acute inhalation toxicity	:	LC50: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2,000 mg/kg

4,4`-Methylenediphenyl diisocyanate, oligomers:

Acute oral toxicity	:	LD50 Oral (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 9,400 mg/kg

4,4'-methylenediphenyl diisocyanate:

Acute oral toxicity	:	LD50 Oral (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50: 1.5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Respiratory sensitisation

No data available

Skin sensitisation

May cause an allergic skin reaction.

Carcinogenicity

Suspected of causing cancer.

Components:

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich:
No data available

Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,3-diisocyanatomethylbenzene:
No data available

Titanium dioxide (> 10 µm):
Suspected of causing cancer.

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:
No data available

Hardener LH (1,6-Hexanedialdimine):
No data available

Hexamethylene-1,6-diisocyanate homopolymer:
No data available

4,4`-Methylenediphenyl diisocyanate, oligomers:
Suspected of causing cancer.

4,4'-methylenediphenyl diisocyanate:
Suspected of causing cancer.

Quartz (SiO2):
No data available

Germ cell mutagenicity
No data available

Components:

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich:
No data available

Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,3-diisocyanatomethylbenzene:
No data available

Titanium dioxide (> 10 µm):
No data available

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:
No data available

Genotoxicity in vivo	:	Species: Bacteria Method: OECD Test Guideline 471 Result: negative Method: TA98 Method: TA100 Method: TA1535 Method: TA1537

Hardener LH (1,6-Hexanedialdimine):
No data available

Hexamethylene-1,6-diisocyanate homopolymer:
No data available

4,4`-Methylenediphenyl diisocyanate, oligomers:
No data available

4,4'-methylenediphenyl diisocyanate:
No data available

Genotoxicity in vivo	:	Species: Bacteria Method: OECD Test Guideline 471 Result: negative Method: TA98 Method: TA100 Method: TA1535 Method: TA1537

Quartz (SiO2):
No data available

Reproductive toxicity
Suspected of damaging fertility or the unborn child.

Components:

1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich:
Suspected of damaging fertility or the unborn child.

Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,3-diisocyanatomethylbenzene:
No data available

Titanium dioxide (> 10 µm):
No data available

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:
No data available

Hardener LH (1,6-Hexanedialdimine):
No data available

Hexamethylene-1,6-diisocyanate homopolymer:
No data available

4,4`-Methylenediphenyl diisocyanate, oligomers:
No data available

4,4'-methylenediphenyl diisocyanate:
No data available

Quartz (SiO2):
No data available

STOT - single exposure
No data available

STOT - repeated exposure
May cause damage to organs through prolonged or repeated exposure.
May cause damage to organs (Lungs) through prolonged or repeated exposure if inhaled.

Repeated dose toxicity
No data available

Aspiration toxicity
No data available

Experience with human exposure
No data available

Toxicology, Metabolism, Distribution

No data available

Neurological effects

No data available

Further information

No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Urea,N,N''-(methylenedi-4,1-phenylene)bis[N'-butyl-:

Toxicity to fish	:	LC50 (Brachydanio rerio (zebrafish)): > 250 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Raphidocelis subcapitata (freshwater green alga)): > 100 mg/l Exposure time: 72 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information	:	There is no data available for this product.

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Send to a licensed waste management company. Do not contaminate ponds, waterways or ditches with chemical or used container.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product.

Do not re-use empty containers.

Disposal precautions

Dispose of contents and container according to wastes control act.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable

IATA-DGR

UN/ID No.	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Packing instruction (cargo aircraft)	:	Not applicable
Packing instruction (passenger aircraft)	:	Not applicable

IMDG-Code

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
EmS Code	:	Not applicable
Marine pollutant	:	Not applicable

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

Not applicable for product as supplied.

National Regulations

Refer to section 15 for specific national regulation.

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

National regulatory information

Regulation under the Occupational Safety and Health Act

Harmful Substances Prohibited from Manufacturing

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Harmful Agents to be kept below Occupational Exposure Limits

Chemical name	CAS-No.
Limestone	1317-65-3
Titanium dioxide	13463-67-7
Diphenylmethane diisocyanate	25686-28-6
Methylene bisphenyl isocyanate	101-68-8
Silica (Crystalline quartz)	14808-60-7

Harmful Agents Required to be kept below Permission Levels

Chemical name	CAS-No.
Methylene bis(phenyl isocyanate)	101-68-8

Hazardous substances requiring management

Chemical name	CAS-No.	Threshold limits (%)
Titanium dioxide	13463-67-7	>= 1 %

Special Management Materials

Not applicable

Controlled Substances Subject to Environment Monitoring

Chemical name	CAS-No.	Threshold limits (%)
Titanium dioxide	13463-67-7	>= 1 %
Silica	14808-60-7	

Controlled Substances Subject to Health Examination

Not applicable

Hazardous Substances Subject to Process Safety Management (PSM) Reporting ObligationRegulation under the Chemicals Control Act

Toxic Chemicals

Not applicable

Restricted Chemicals

Not applicable

Prohibited Chemicals

Not applicable

Toxic Release Inventory

Not applicable

Accident Precaution Chemicals

Not applicable

Dangerous Substances Safety Management Act

Classification	:	Group 4, Flammable liquids, Type 3 petroleums, Water insoluble liquid
Hazard rank	:	Hazardous rank III
Designated Quantity	:	2000 litre
Safety Warning	:	Keep away from fire

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

라. Wastes Control Act

Industrial general wastes
Follow article 13 of the act to dispose the product waste

마. Other requirements in domestic and other countries

The components of this product are reported in the following inventories:

ENCS	:	Not in compliance with the inventory
ISHL	:	Not in compliance with the inventory
KECI	:	Not in compliance with the inventory

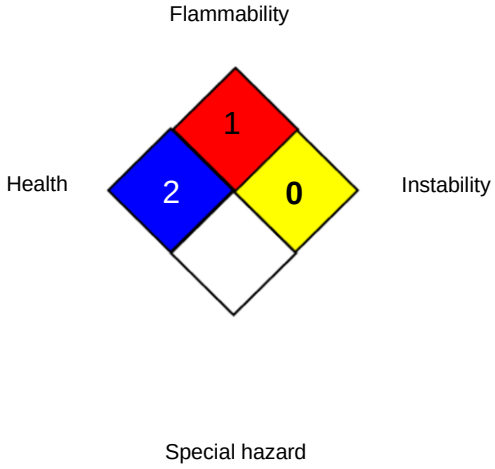
16. OTHER INFORMATION

Issuing date	:	22.12.2015

Revision number and date

Number of Revision	:	3.0
Revision Date	:	23.05.2024
Date format	:	yyyy/mm/dd

NFPA:



Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
KR OEL	:	Harmful Agents to be kept below Occupational Exposure Limits
KR PEL	:	Harmful Agents Required to be kept below Permission Levels
ACGIH / TWA	:	8-hour, time-weighted average
KR OEL / TWA	:	Time Weighted Average
KR PEL / TWA	:	TWA
ADR	:	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	:	Chemical Abstracts Service
DNEL	:	Derived no-effect level
EC50	:	Half maximal effective concentration
GHS	:	Globally Harmonized System
IATA	:	International Air Transport Association
IMDG	:	International Maritime Code for Dangerous Goods
LD50	:	Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	:	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	:	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	:	Occupational Exposure Limit
PBT	:	Persistent, bioaccumulative and toxic
PNEC	:	Predicted no effect concentration
REACH	:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	:	Substances of Very High Concern

vPvB : Very persistent and very bioaccumulative

The information contained in this Safety Data Sheet corresponds to our level of knowledge at the time of publication. All warranties are excluded. Our most current General Sales Conditions shall apply. Please consult the product data sheet prior to any use and processing.
KR / EN