

SAFETY DATA SHEET

Sikaflex®-221



Version 4.0

SDS Number: 000000601552

Revision Date: 15.06.2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sikaflex®-221

Product code : 000000601552

Manufacturer or supplier's details

Company : Sika Ltd.
Nagatoro 1 – 1, Hiratsuka – Shi, Kanagawa 14 2540021
Japan

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Prepared by : Quality Assurance & EHS Group

2. HAZARDS IDENTIFICATION

GHS Classification

Carcinogenicity : Category 2

Reproductive toxicity : Category 1B

Specific target organ toxicity - single exposure : Category 2 (Central nervous system, Kidney, Liver, respiratory system)

Specific target organ toxicity - repeated exposure : Category 2 (Nervous system, respiratory tract system)

Specific target organ toxicity - repeated exposure (Inhalation) : Category 2 (Central nervous system)

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : Suspected of causing cancer.
May damage fertility or the unborn child.
May cause damage to organs (Central nervous system, Kidney, Liver, respiratory system).
May cause damage to organs (respiratory system, Nervous system) through prolonged or repeated exposure.
May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
Obtain special instructions before use.

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Do not handle until all safety precautions have been read and understood.
Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF exposed or concerned: Call a POISON CENTER/doctor.

Storage:

Store locked up.

Disposal:

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

Other hazards which do not result in classification

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (%)	ENCS/ISHL number
Xylene	1330-20-7	1.8	3-3, 3-60
Ethylbenzene	100-41-4	1.2	3-60
Titanium(IV) oxide	13463-67-7	>= 2.5 - < 10	1-558, 5-5225
4,4'-methylenediphenyl diisocyanate	101-68-8	>= 0.1 - < 1	4-118

4. FIRST AID MEASURES

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

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 : Immediately flush eye(s) with plenty of water.
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 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 : No known significant effects or hazards.
See Section 11 for more detailed information on health effects and symptoms.
May damage fertility or the unborn child.
May cause damage to organs.

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Notes to physician : May cause damage to organs through prolonged or repeated exposure.
: Treat symptomatically.

5. FIREFIGHTING MEASURES

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.
If the product contaminates rivers and lakes or drains inform respective authorities.
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

Handling

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.
Smoking, eating and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products
Avoidance of contact : No data available
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.

Storage

Conditions for safe storage : Store in original container.
Keep in a well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold limit value and permissible exposure limits for each component in the work environment

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
titanium dioxide	13463-67-7	TWA	10 mg/m ³ (Titanium dioxide)	ACGIH
xylene	1330-20-7	OEL-M	50 ppm 217 mg/m ³	JP OEL JSOH
	Further information: Group 2: Substances presumed to cause reproductive toxicity in humans			
		ACL	50 ppm	JP OEL ISHL
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
ethylbenzene	100-41-4	ACL	20 ppm	JP OEL ISHL
		OEL-M	50 ppm 217 mg/m ³	JP OEL JSOH
	Further information: Group 2: Substances presumed to cause reproductive toxicity in humans, Group 2B: possibly carcinogenic to humans			
4,4'-methylenediphenyl diisocyanate	101-68-8	OEL-M	0.05 mg/m ³	JP OEL JSOH
	Further information: Airway sensitizing agent; Group 1 substances which induce allergic reactions in humans			
		TWA	0.005 ppm	ACGIH

Personal protective equipment

- 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.
- 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : paste
- Colour : various
- Odour : characteristic
- Odour Threshold : No data available
- pH : Not applicable

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Melting point/range / Freezing point	: No data available
Boiling point/boiling range	: No data available
Flash point	: ca. 64.6 °C (148.3 °F), Method: closed cup
Evaporation rate	: No data available
Flammability	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 0.01 hPa (0.01 mmHg)
Relative vapour density	: No data available
Density	: ca. 1.26 g/cm ³ (23 °C)
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s (40 °C)
Explosive properties	: No data available
Molecular weight	: No data available

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	: No hazards to be specially mentioned.
Conditions to avoid	: No data available
Incompatible materials	: No data available
Hazardous decomposition products	No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Components:

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xylene:

Acute oral toxicity : LD50 Oral (Rat): 3,523 mg/kg
Acute dermal toxicity : LD50 Dermal (Rabbit): 1,700 mg/kg

ethylbenzene:

Acute oral toxicity : LD50 Oral (Rat): 3,500 mg/kg
Acute dermal toxicity : LD50 Dermal (Rabbit): 5,510 mg/kg

4,4'-methylenediphenyl diisocyanate:

Acute inhalation toxicity : Acute toxicity estimate: 1.5 mg/l Test atmosphere: dust/mist,
Method: Expert judgement

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

May damage fertility or the unborn child.

STOT - single exposure

May cause damage to organs (Central nervous system, Kidney, Liver, respiratory system).

STOT - repeated exposure

May cause damage to organs (respiratory system, Nervous system) through prolonged or repeated exposure.
May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.

Aspiration toxicity

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

ethylbenzene:

Toxicity to fish : LC50 (Fish): <= 1 mg/l
Exposure time: 96 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

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Hazardous to the ozone layer

Not applicable

Other adverse effects

Product:

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

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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.

15. REGULATORY INFORMATION

Related Regulations

Fire Service Law

Not applicable (Designated Flammable Substances)

Industrial Safety and Health Law

Harmful Substances Prohibited from Manufacture

Not applicable

Harmful Substances Required Permission for Manufacture

Not applicable

Substances Prevented From Impairment of Health

Chemical name
Ethylbenzene

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Circular concerning Information on Chemicals having Mutagenicity - Annex 2: Information on Existing Chemicals having Mutagenicity

Not applicable

Circular concerning Information on Chemicals having Mutagenicity - Annex 1: Information on Notified Substances having Mutagenicity

Not applicable

Substances Subject to be Notified Names

Article 57-2 (Enforcement Order Table 9)

Chemical name	Number	Concentration (%)
Titanium(IV) oxide	191	>=1 - <10
Xylene	136	>=1 - <10
Ethylbenzene	70	>=1 - <10
Methylenebis(4,1-phenylene) diisocyanate	599	>=0.1 - <1

Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Number
Titanium(IV) oxide	191
xylene	136
ethylbenzene	70

Ordinance on Prevention of Hazards Due to Specified Chemical Substances - Group 2 Substance

Chemical name
Ethylbenzene

Ordinance on Prevention of Lead Poisoning

Not applicable

Ordinance on Prevention of Tetraalkyl Lead Poisoning

Not applicable

Ordinance on Prevention of Organic Solvent Poisoning

Not applicable

Poisonous and Deleterious Substances Control Law

Not applicable

Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof

Class I Designated Chemical Substances

Chemical name	Number	Concentration (%)
xylene	80	1.8
ethylbenzene	53	1.2

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

Narcotic or Psychotropic Raw Material : Not applicable

Specific Narcotic or Psychotropic Raw Material : Not applicable

High Pressure Gas Safety Act

Not applicable

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16. OTHER INFORMATION

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.