

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

1. PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : Sikaflex®-321 HC

Supplier's company name, address and phone number

Company name of supplier : Sika Japan Ltd.
Akasaka-K-Tower 7F
1-2-7 Moto-Akasaka
Minato-ku Tokyo
107-0051 Japan

Telephone : +81 3 6434 7291

E-mail address : EHS@jp.sika.com

Telefax : -

Emergency telephone number : +81 463 24 4976

2. HAZARDS IDENTIFICATION

GHS classification of chemical product

Serious eye damage/eye irritation : Category 1

Carcinogenicity : Category 2

Reproductive toxicity : Category 1B

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

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

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 3

Skin corrosion/irritation : Category 2

GHS label elements

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

Hazard pictograms :



Signal word :

Danger

Hazard statements :

H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.
H371 May cause damage to organs (respiratory system, Central nervous system, Kidney, Liver).
H373 May cause damage to organs (Nervous system, respiratory system) through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

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.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.

Storage:

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

Disposal:

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

Other hazards which do not result in classification

None known.

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)	ENCS/ISHL number
Titanium dioxide (> 10 µm)	13463-67-7	>= 2.5 - < 10	1-558, 5-5225
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	>= 2.5 - < 10	
calcium oxide	1305-78-8	>= 1 - < 3	1-189
aluminium sulphate	10043-01-3	>= 1 - < 3	1-25
xylene	1330-20-7	1.7	3-3, 3-60
ethylbenzene	100-41-4	>= 0.3 - < 1	3-28, 3-60
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 : 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 give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : Excessive lachrymation
See Section 11 for more detailed information on health effects and symptoms.

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

irritant effects
carcinogenic effects
Causes serious eye damage.
May cause respiratory irritation.
May cause cancer.
May damage fertility or the unborn child.
May cause damage to organs.
Causes damage to organs through prolonged or repeated exposure.

Notes to physician : Treat symptomatically.

5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
- Unsuitable extinguishing media : Water
- 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
-

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

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 : Prevent unauthorized access.
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
Hydrocarbons, C11-C14, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-47-8	OEL-M (Mist)	3 mg/m3	JP OEL JSOH
	Further information: Substance whose OEL is set based on non-carcinogenic health effects. See III, Group 1: carcinogenic to humans			
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
calcium oxide	1305-78-8	TWA	2 mg/m3	ACGIH
xylene	1330-20-7	OEL-M	50 ppm 217 mg/m3	JP OEL JSOH
	Further information: Group 2: Substances presumed to cause reproductive toxicity in humans			
		ACL	50 ppm	JP OEL ISHL
		TWA	20 ppm	ACGIH
ethylbenzene	100-41-4	ACL	20 ppm	JP OEL ISHL
		OEL-M	20 ppm 87 mg/m3	JP OEL JSOH
	Further information: Group 2: Substances presumed to cause			

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

	reproductive toxicity in humans, Skin absorption, Group 2B: possibly carcinogenic to humans			
		TWA	20 ppm	ACGIH
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

Biological occupational exposure limits

Components	CAS-No.	Target substance	Biological specimen	Sampling time	Permissible concentration	Basis
xylene	1330-20-7	total (o-, m-, p-)methylhippuric acid	Urine	End of shift at end of workweek	800 mg/l	JSOH
		Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g creatinine	ACGIH BEI
ethylbenzene	100-41-4	Mandelic acid	Urine	End of shift	150 mg/g Creatinine	JSOH
		Mandelic acid + Phenylglyoxylic acid	Urine	End of shift at end of workweek	200 mg/g Creatinine	JSOH
		Ethylbenzene	Urine	End of shift	15 µg/l	JSOH
		Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI

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 nec-

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

essary.

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

Physical state : paste

Colour : grey, white

Odour : characteristic

Odour Threshold : No data available

Melting point/range / Freezing point : No data available

Boiling point/boiling range : No data available

Flammability (solid, gas) : No data available

Lower explosion limit and upper explosion limit / flammability limit

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : 62 °C
(Method: closed cup)

Decomposition temperature : No data available

pH : No data available

Evaporation rate : No data available

Auto-ignition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Solubility(ies)

Water solubility : No data available

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Vapour pressure : 0.01 hPa

Density and / or relative density
Density : 1.22 g/cm³ (20 °C)

Relative vapour density : No data available

Explosive properties : No data available

Oxidizing properties : 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

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Components:

xylene:

Acute oral toxicity : LD50 Oral (Rat): 3,523 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 oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50: 1.5 mg/l

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye damage.

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 (respiratory system, Central nervous system, Kidney, Liver).

STOT - repeated exposure

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

Aspiration toxicity

Not classified based on available information.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

xylene:

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l
Exposure time: 56 d

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia (water flea)): 1.17 mg/l
Exposure time: 7 d

ethylbenzene:

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

M-Factor (Acute aquatic tox- : 1

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

icity)

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

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 : 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.
Do not burn, or use a cutting torch on, the empty drum.

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

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

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

Related Regulations

Fire Service Law

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

Not applicable

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	Concentration (%)	Remarks
Titanium(IV) oxide	>=1 - <10	-
Calcium oxide	>=1 - <10	-

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

Xylene	>=1 - <10	-
Ethylbenzene	>=0.1 - <1	-
Methylenebis(4,1-phenylene) diisocyanate	>=0.1 - <1	-

Substances Subject to be Indicated Names

Article 57 (Enforcement Order Article 18)

Chemical name	Remarks
Titanium(IV) oxide	-
Calcium oxide	-
xylene	-
ethylbenzene	-

Ordinance on Prevention of Hazards Due to Specified Chemical Substances

Not applicable

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

Until March 31st, 2023

Class I Designated Chemical Substances

Chemical name	Cabinet Order Number	Concentration (%)
xylene	80	1.7

From April 1st, 2023

Class I Designated Chemical Substances

Chemical name	Administration number	Concentration (%)
xylene	80	1.7

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

High Pressure Gas Safety Act

Not applicable

16. OTHER INFORMATION

Date format : yyyy/mm/dd

SAFETY DATA SHEET

Sikaflex®-321 HC



Version
5.0

Revision Date:
2023/03/27

SDS Number:
000000610631

Date of last issue: 2020/06/16
Date of first issue: 2016/01/27

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	:	ACGIH - Biological Exposure Indices (BEI)
JP OEL ISHL	:	Japan. Administrative Control Levels
JP OEL JSOH	:	Japan. The Japan Society for Occupational Health. Recommendation of Occupational Exposure Limits
JSOH	:	Occupational exposure limits based on biological monitoring (JSOH).
ACGIH / TWA	:	8-hour, time-weighted average
JP OEL ISHL / ACL	:	Administrative Control level
JP OEL JSOH / OEL-M	:	Occupational Exposure Limit-Mean
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 dose (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.

JP / EN