

SAFETY DATA SHEET

Sikaflex®-321 HC



Version 4.1

SDS Number: 000000610631

Revision Date: 16.06.2020

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Sikaflex®-321 HC
Product code : 000000610631

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

Skin corrosion/irritation : Category 2
Serious eye damage/eye irritation : Category 1
Reproductive toxicity : Category 1B
Specific target organ toxicity - single exposure : Category 2 (respiratory tract system, Central nervous system, Kidney, Liver, respiratory system)
Specific target organ toxicity - repeated exposure : Category 2 (respiratory tract system, Nervous system)
Short-term (acute) aquatic hazard : Category 3

GHS label elements

Hazard pictograms : 

Signal word : Danger

Hazard statements : Causes skin irritation.
Causes serious eye damage.
May damage fertility or the unborn child.
May cause damage to organs (respiratory tract system, Central nervous system, Kidney, Liver, respiratory system).
May cause damage to organs (respiratory tract system, Nervous system) through prolonged or repeated exposure.
Harmful to aquatic life.

Precautionary statements : **Prevention:**

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Obtain special instructions before use.
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 ON SKIN: Wash with plenty of water.
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.
IF exposed or concerned: Call a POISON CENTER/ doctor.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash it before reuse.

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
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
titanium dioxide	13463-67-7	>= 1 - < 10	1-558, 5-5225

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.

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	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. No known significant effects or hazards. Causes skin irritation. Causes serious eye damage. May damage fertility or the unborn child. May cause damage to organs. May cause damage to organs through prolonged or repeated exposure.
Notes to physician	: Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Powder, Carbon dioxide (CO ₂)
Unsuitable extinguishing media	: No data
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	: Try to prevent the material from entering drains or water courses. No special environmental precautions required.
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.

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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
calcium oxide	1305-78-8	TWA	2 mg/m ³	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

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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 : grey, white
- Odour : characteristic
- Odour Threshold : No data available
- pH : No data available
- Melting point/range / Freezing point : No data available
- Boiling point/boiling range : No data available
- Flash point : 62 °C (144 °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 : 1.22 g/cm³ (20 °C (68 °F))
- Solubility(ies)
- Water solubility : No data available
- Solubility in other solvents : No data available
- 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 : Not applicable

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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

Not classified based on available information.

Components:

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

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

Not classified based on available information.

Reproductive toxicity

May damage fertility or the unborn child.

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STOT - single exposure

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

STOT - repeated exposure

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

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

M-Factor (Acute aquatic toxicity) : 1

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 : 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

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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

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	Number	Concentration (%)
Titanium(IV) oxide	191	>=1 - <10
Calcium oxide	190	>=1 - <10
Xylene	136	>=1 - <10
Ethylbenzene	70	>=0.1 - <1
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
Calcium oxide	190
xylene	136

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ethylbenzene	70
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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

Class I Designated Chemical Substances

Chemical name	Number	Concentration (%)
xylene	80	1.7

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

Narcotic or Psychotropic Raw Material (Export / Import Permission) : Not applicable

Specific Narcotic or Psychotropic Raw Material (Export / Import permission) : Not applicable

High Pressure Gas Safety Act

Not applicable

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.