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### **SECTION 1. IDENTIFICATION**

Product name : Sikaflex®-2c NS TG

Company name : Sika Corporation

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USA

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Telephone : (201) 933-8800

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E-mail address : ehs@sika-corp.com

Emergency telephone : CHEMTREC: 800-424-9300

INTERNATIONAL: +1-703-527-3887

Recommended use of the chemical and restrictions on

use

For further information, refer to product data sheet.

### **SECTION 2. HAZARDS IDENTIFICATION**

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

Respiratory sensitization : Category 1

Skin sensitization : Category 1

Specific target organ toxicity

- single exposure

Category 3 (Respiratory system)

**GHS** label elements

Hazard pictograms







Signal Word : Danger

Hazard Statements : H226 Flammable liquid and vapor.

H315 Causes skin irritation.



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H317 May cause an allergic skin reaction.

H319 Causes serious eve irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

### **Precautionary Statements**

#### Prevention:

P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing mist or vapors.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P284 Wear respiratory protection.

## Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER/ doctor.

P362 + P364 Take off contaminated clothing and wash it before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

#### Storage:

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

P403 + P235 Store in a well-ventilated place. Keep cool. P405 Store locked up.

# Disposal:

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



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### Additional Labeling

There are no ingredients with unknown acute toxicity used in a mixture at a concentration >= 1%.

#### Other hazards

Intentional misuse by deliberate concentration and inhalation of vapor may be harmful or fatal.

### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

## **Mixtures**

# Components

Chemical name	CAS-No.	Classification	Concentra- tion (% w/w)
Isophorondiisocyanate homopoly- mer	53880-05-0	Skin Sens. 1B; H317 STOT SE 3; H335	>= 50 - < 70
2-methoxy-1-methylethyl acetate	108-65-6	Flam. Liq. 3; H226 STOT SE 3; H336	>= 10 - < 20
xylene	1330-20-7	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2A; H319 STOT SE 3; H335 STOT RE 2; H373 Asp. Tox. 1; H304	>= 10 - < 20
ethylbenzene	100-41-4	Flam. Liq. 2; H225 Acute Tox. 4; H332 STOT RE 2; H373 Asp. Tox. 1; H304 Eye Irrit. 2A; H319	>= 1 - < 5
3-isocyanatomethyl-3,5,5- trimethylcyclohexyl isocyanate	4098-71-9	Acute Tox. 1; H330 Skin Corr. 1C; H314 Eye Dam. 1; H318 Resp. Sens. 1; H334 Skin Sens. 1; H317 STOT SE 3; H335	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

### **SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.

Consult a physician.

Show this material safety data sheet to the doctor in attend-

ance.

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.



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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.

Clean mouth with water and drink afterwards plenty of water. If swallowed

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

irritant effects sensitizing effects

Asthmatic appearance

Cough

Respiratory disorder Allergic reactions **Excessive lachrymation** 

Erythema **Dermatitis** 

Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation.

May cause allergy or asthma symptoms or breathing difficul-

ties if inhaled.

May cause respiratory irritation.

Notes to physician Treat symptomatically.

### **SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media Alcohol-resistant foam

Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

Water

High volume water jet

Specific hazards during fire

fighting

: Do not use a solid water stream as it may scatter and spread

fire.

Further information Use water spray to cool unopened containers.

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.

for fire-fighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

# SECTION 6. ACCIDENTAL RELEASE MEASURES



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Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Remove all sources of ignition. Deny access to unprotected persons.

Beware of vapors accumulating to form explosive concentra-

tions. Vapors can accumulate in low areas.

Environmental precautions

Prevent product from entering drains.

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

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local

/ national regulations (see section 13).

#### **SECTION 7. HANDLING AND STORAGE**

Advice on protection against :

fire and explosion

Use explosion-proof equipment.

Keep away from heat/ sparks/ open flames/ hot surfaces. No

smoking.

Take precautionary measures against electrostatic discharg-

es.

Advice on safe handling

Avoid formation of aerosol.

Do not breathe vapors or spray mist.

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 ap-

plication area.

Take precautionary measures against static discharge. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge

(which might cause ignition of organic vapors).

Follow standard hygiene measures when handling chemical

products.

Conditions for safe storage

Store in original container.

Keep in a 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

Explosives
Oxidizing agents



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Poisonous gases Poisonous liquids

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm	US WEEL
xylene	1330-20-7	TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		STEL	150 ppm 655 mg/m3	OSHA P0
		TWA	100 ppm 435 mg/m3	OSHA P0
ethylbenzene	100-41-4	TWA	100 ppm 435 mg/m3	OSHA Z-1
		TWA	100 ppm 435 mg/m3	OSHA P0
		STEL	125 ppm 545 mg/m3	OSHA P0
		TWA	20 ppm	ACGIH
3-isocyanatomethyl-3,5,5- trimethylcyclohexyl isocyanate	4098-71-9	TWA	0.005 ppm	OSHA P0
		STEL	0.02 ppm	OSHA P0

The above constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

#### **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.

The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

#### Personal protective equipment

Respiratory protection

Use a properly fitted NIOSH approved air-purifying or air-fed 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 max-

imum expected contaminant concentration

(gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-



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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-

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 concen-

tration and amount of dangerous substances, and to the spe-

cific work-place.

Hygiene measures : Avoid contact with skin, eyes and clothing.

Wash hands before breaks and immediately after handling

the product.

Remove respiratory and skin/eye protection only after vapors

have been cleared from the area.

Remove contaminated clothing and protective equipment

before entering eating areas. Wash thoroughly after handling.

#### **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Color : light yellow

Odor : solvent

Odor Threshold : No data available

pH : Not applicable

Melting point/range / Freezing :

point

No data available

Boiling point/boiling range :  $284 \, ^{\circ}\text{F} \, / \, 140 \, ^{\circ}\text{C}$ 

Flash point :  $104 \, ^{\circ}\text{F} / 40 \, ^{\circ}\text{C}$ 

(Method: closed cup)

Evaporation rate : No data available

Flammability (solid, gas) : No data available

Upper explosion limit / Upper

flammability limit

Upper flammability limit

0.8 %(V)

Lower explosion limit / Lower

flammability limit

Lower flammability limit

13.1 %(V)

Vapor pressure : 7.9993 hpa



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Relative vapor density No data available

1.08 g/cm3 (68 °F / 20 °C) Density

Solubility(ies)

Water solubility insoluble

Solubility in other solvents No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature 599 °F / 315 °C

Decomposition temperature No data available

Viscosity

Viscosity, dynamic No data available

Viscosity, kinematic > 20.5 mm2/s (104 °F / 40 °C)

Explosive properties No data available

Oxidizing properties No data available

Volatile organic compounds

(VOC) content

66 g/l

Sikaflex®-2c NS EZ Mix Part A + B + Sikaflex®-2c NS EZ Mix

Booster +Sikaflex®-2c NS TG Combined.

# **SECTION 10. STABILITY AND REACTIVITY**

Reactivity No dangerous reaction known under conditions of normal use.

Chemical stability The product is chemically stable.

Possibility of hazardous reac-

tions

Stable under recommended storage conditions.

Vapors may form explosive mixture with air.

Conditions to avoid Heat, flames and sparks.

Incompatible materials No data available

Hazardous decomposition

products

No decomposition if stored and applied as directed.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

#### **Acute toxicity**

Not classified based on available information.



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### **Components:**

## 2-methoxy-1-methylethyl acetate:

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

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

### 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:

Acute oral toxicity : LD50 Oral (Rat): 4,814 mg/kg

Acute inhalation toxicity : LC50 (Rat): 0.031 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Dermal (Rat): > 7,000 mg/kg

### Skin corrosion/irritation

Causes skin irritation.

#### Serious eye damage/eye irritation

Causes serious eye irritation.

#### Respiratory or skin sensitization

## Skin sensitization

May cause an allergic skin reaction.

#### Respiratory sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

# Germ cell mutagenicity

Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

IARC Group 2B: Possibly carcinogenic to humans

ethylbenzene 100-41-4

OSHA Not applicable

NTP Not applicable



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## Reproductive toxicity

Not classified based on available information.

### **STOT-single exposure**

May cause respiratory irritation.

## STOT-repeated exposure

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

**Product:** 

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

# **Aspiration toxicity**

Not classified based on available information.

#### **SECTION 12. ECOLOGICAL INFORMATION**

## **Ecotoxicity**

#### **Components:**

xylene:

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 2.2

mg/l

Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): > 1.3 mg/l

Exposure time: 56 d

Toxicity to daphnia and other :

aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia): 1.17 mg/l

Exposure time: 7 d

## ethylbenzene:

### Persistence and degradability

No data available

### Bioaccumulative potential

No data available

#### Mobility in soil

No data available

#### Other adverse effects

#### **Product:**

Additional ecological infor-

mation

: Do not empty into drains; dispose of this material and its con-

tainer in a safe way.

Avoid dispersal of spilled material and runoff and contact with

soil, waterways, drains and sewers.



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## **SECTION 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 han-

dling site for recycling or disposal.

#### SECTION 14. TRANSPORT INFORMATION

## International Regulations

**IATA-DGR** 

UN/ID No. : UN 1866
Proper shipping name : Resin solution

Class : 3 Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo : 366

aircraft)

Packing instruction (passen-

ger aircraft)

355

IMDG-Code

UN number : UN 1866

Proper shipping name : RESIN SOLUTION

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E
Marine pollutant : no

**Domestic regulation** 

**49 CFR** 

UN/ID/NA number : UN 1866
Proper shipping name : Resin solution

Class : 3 Packing group : III

Labels : FLAMMABLE LIQUID

ERG Code : 127 Marine pollutant : no

DOT: As per 49CFR 173.150 (f) Combustible Liquid Exception, Material is Not Regulated. IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

# Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet.



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Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

#### **SECTION 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.

#### **CERCLA Reportable Quantity**

Components	CAS-No.	Component RQ (lbs)
xylene	1330-20-7	100

## SARA 304 Extremely Hazardous Substances Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Respiratory or skin sensitization

Skin corrosion or irritation

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels es-

tablished by SARA Title III, Section 313:

xylene 1330-20-7 >= 10 - < 20 %

ethylbenzene 100-41-4 >= 1 - < 5 %

#### Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

xylene 1330-20-7 >= 10 - < 20 % ethylbenzene 100-41-4 >= 1 - < 5 %

# California Prop. 65

**WARNING:** This product can expose you to chemicals including ethylbenzene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

#### **SECTION 16. OTHER INFORMATION**

# Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

OSHA PO : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)

ACGIH / TWA : 8-hour, time-weighted average



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ACGIH / STEL Short-term exposure limit 8-hour time weighted average OSHA P0 / TWA OSHA P0 / STEL Short-term exposure limit 8-hour time weighted average OSHA Z-1 / TWA

US WEEL / TWA 8-hr TWA

#### **Notes to Reader**

The information contained in this Safety Data Sheet applies only to the actual Sika Corporation ("Sika") product identified and described herein. This information is not intended to address, nor does it address the use or application of the identified Sika product in combination with any other material, product or process. All of the information set forth herein is based on technical data regarding the identified product that Sika believes to be reliable as of the date hereof. Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's current Product Data Sheet, product label and Safety Data Sheet for each Sika product, which are available at web site and/or telephone number listed in Section 1 of this SDS.

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