

# Safety Data Sheet

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II - United Kingdom (UK)



## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Identification of the substance or preparation

Product name or Trade name :

Sikaflex®-221

Use of the substance/preparation : Chemical product for construction and industry

### Company/undertaking identification

Manufacturer/Distributor : Sika Limited  
Watchmead Welwyn Garden City  
Hertfordshire. AL7 1BQ  
United Kingdom

Telephone no. : 01707 394444

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e-mail address of person responsible for this SDS : EHS@uk.sika.com

Emergency telephone number :

## 2. HAZARDS IDENTIFICATION

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : R42

Human health hazards : May cause sensitisation by inhalation.

Additional warning phrases : Contains isocyanates. See information supplied by the manufacturer.

See section 11 for more detailed information on health effects and symptoms.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical family/ Characteristics : Filled reactive PUR-polymer

Ingredient name	CAS number	%	EC number	Classification
Xylene	1330-20-7	<12.5	215-535-7	R10 Xn; R20/21 Xi; R38 [1] [2]
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	0.25-2.5	265-185-4	R10 Xn; R65 R66, R67 N; R51/53 [1]
4,4-methylenediphenyl diisocyanate	101-68-8	0.1-1	202-966-0	Xn; R20 Xi; R36/37/38 R42/43 [1] [2]
See section 16 for the full text of the R-phrases declared above				

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in section 8.

## 4. FIRST AID MEASURES

### First-aid measures

- Inhalation** : Get medical attention if adverse health effects persist or are severe. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting unless directed to do so by medical personnel. Maintain an open airway. Seek immediate medical attention.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Obtain medical attention if symptoms occur.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See section 11 for more detailed information on health effects and symptoms.

## 5. FIRE-FIGHTING MEASURES

### Extinguishing media

- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- Special exposure hazards** : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon oxides  
halogenated compounds  
metal oxide/oxides
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment.
- Small spill** : Stop leak if without risk. Move containers from spill area. Absorb with an inert material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately

## 7. HANDLING AND STORAGE

ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous.

**Storage** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.

### Packaging materials

**Recommended** : Use original container.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
xylene	<b>EH40-WEL (United Kingdom (UK), 8/2007). Skin</b> WEL 15 min limit: 441 mg/m <sup>3</sup> 15 minute(s). WEL 15 min limit: 100 ppm 15 minute(s). WEL 8 hrs limit: 220 mg/m <sup>3</sup> 8 hour(s). WEL 8 hrs limit: 50 ppm 8 hour(s).
4,4-methylenediphenyl diisocyanate	<b>EH40-WEL (United Kingdom (UK), 8/2007). Skin sensitizer</b> <b>Notes: As NCO</b> WEL 15 min limit: 0.07 mg/m <sup>3</sup> , (As NCO) 15 minute(s). WEL 8 hrs limit: 0.02 mg/m <sup>3</sup> , (As NCO) 8 hour(s).

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

### Exposure controls

**Occupational exposure controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

**Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**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. Recommended: Butyl rubber/nitrile rubber gloves.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Use barrier skin cream.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General information

#### Appearance

- Form** : Paste.
- Colour** : Various.
- Odour** : Characteristic.

#### Important health, safety and environmental information

- Flash point** : Closed cup: >70°C (>158°F)
- Density** : ~1.26 g/cm<sup>3</sup> [20°C (68°F)]
- Solubility** : Insoluble in the following materials: water
- Viscosity** : Dynamic: Not applicable.

## 10. STABILITY AND REACTIVITY

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
- Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
- Materials to avoid** : Reactive or incompatible with the following materials: oxidizing materials
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. TOXICOLOGICAL INFORMATION

### Potential acute health effects

- Inhalation** : May cause sensitisation by inhalation.
- Ingestion** : Can cause gastrointestinal disturbances.
- Skin contact** : May cause skin irritation.
- Eye contact** : May cause eye irritation.
- Chronic effects** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

## 12. ECOLOGICAL INFORMATION

- Environmental effects** : Avoid contact of spilt material and runoff with soil and surface waterways. Do not empty into drains; dispose of this material and its container in a safe way.

## 13. DISPOSAL CONSIDERATIONS

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
- European waste catalogue (EWC)** : 08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances
- Packaging** : Completely emptied packaging or practically empty packaging containing dried/cured residues, once relieved of all pressure can be disposed of as non-hazardous waste.
- Packaging may still contain hazardous residues and disposal should undertaken by a licensed waste contractor.
- Any disposal practice must be in compliance with local and national laws and regulations.

## 14. TRANSPORT INFORMATION

### International transport regulations

#### ADR

Not regulated.

#### IMDG

Not regulated.

**Marine pollutant** : No.

#### IATA

Not regulated.

## 15. REGULATORY INFORMATION

### EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

- Hazard symbol or symbols** : Xn  
Harmful
- Contains** : 4,4-methylenediphenyl diisocyanate
- Risk phrases** : R42- May cause sensitisation by inhalation.
- Safety phrases** : S23- Do not breathe gas/fumes/vapour/spray  
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- Additional warning phrases** : Contains isocyanates. See information supplied by the manufacturer.
- VOC content (EU)** : VOC (w/w): 3.46%

### National regulations

- Regulatory information** : Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP 3)  
Control of Substances Hazardous to Health Regulations 2002 (COSHH) (as amended)  
Health & Safety at Work Act 1974  
The Environmental Protection (Duty of Care) Regulations 1991  
Hazardous waste regulations 2005  
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2005
- Guidance Publications** : Approved Code of Practice - Management of Health and Safety at Work, HSE  
General Approved Code of Practice to COSHH Regulations, HSE.  
EH40, Workplace Exposure Limits, HSE (as updated).

## 15. REGULATORY INFORMATION

HS(G) 53, Respiratory Protection Equipment - a Practical Guide for Users, HSE.

## 16. OTHER INFORMATION

**Full text of classifications referred to in sections 2 and 3** : R10- Flammable.  
R20- Harmful by inhalation.  
R20/21- Harmful by inhalation and in contact with skin.  
R65- Harmful: may cause lung damage if swallowed.  
R38- Irritating to skin.  
R36/37/38- Irritating to eyes, respiratory system and skin.  
R42- May cause sensitisation by inhalation.  
R42/43- May cause sensitisation by inhalation and skin contact.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.  
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications referred to in sections 2 and 3** : Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

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▣ Indicates information that has changed from previously issued version.

### Notice to reader

*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.*