SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : Sikalastic®-490 T

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product use : Surfaces protection, Product is not intended for consumer use

1.3 Details of the supplier of the safety data sheet

Company : Sika Schweiz AG
Tüffenwies 16
8048 Zürich
Telephone : +41584364040
E-mail address : EHS@ch.Sika.com

1.4 Emergency telephone number

Emergency telephone number : Tox Info Suisse
CH-8028 Zurich
+41(0)44 251 51 51 / Speed calling: 145
EHS@ch.Sika.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Type of product : Mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 3	H226: Flammable liquid and vapour.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.
Respiratory sensitisation, Category 1	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Aspiration hazard, Category 1	H304: May be fatal if swallowed and enters airways.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.
Eye irritation, Category 2	H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :

Signal word : Danger

Hazard statements	:	H226	Flammable liquid and vapour.
		H304	May be fatal if swallowed and enters airways.
		H315	Causes skin irritation.
		H317	May cause an allergic skin reaction.
		H332	Harmful if inhaled.
		H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		H373	May cause damage to organs through prolonged or repeated exposure.
		H319	Causes serious eye irritation.
Precautionary statements	:	**Prevention:**	
		P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
		P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/ eye protection/ face protection.
		P284	In case of inadequate ventilation wear respiratory protection.
		Response:	
		P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
		P304 + P340 + P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
		P331	Do NOT induce vomiting.
		P342 + P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.
		P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Hazardous components which must be listed on the label:
- 411-700-4 1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate
- 215-535-7 xylene
- 500-125-5 Isophorondiisocyanate homopolymer
- 223-861-6 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate

Additional Labelling:

EUH204 Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

Chemical Name CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate 140921-24-0 411-700-4	Skin Sens.1; H317	>= 20 - < 25
xylene 1330-20-7 215-535-7 01-2119488216-32-XXXX Contains: ethylbenzene <= 25 %	Flam. Liq.3; H226 Acute Tox.4; H332 Acute Tox.4; H312 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373 Asp. Tox.1; H304	>= 20 - < 25
Isophorondiisocyanate homopolymer 53880-05-0 931-312-3 500-125-5 01-2119488734-24-XXXX Contains: 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate <= 0,49 %	Skin Sens.1; H317 STOT SE3; H335	>= 5 - < 10
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate 4098-71-9 223-861-6 01-2119490408-31-XXXX	Acute Tox.1; H330 Skin Irrit.2; H315 Eye Irrit.2; H319 Resp. Sens.1; H334 Skin Sens.1; H317 STOT SE3; H335 Aquatic Chronic2; H411	>= 0,5 - < 1
2,2,4-trimethylpentane 540-84-1 208-759-1	Flam. Liq.2; H225 Skin Irrit.2; H315 STOT SE3; H336 Asp. Tox.1; H304 Aquatic Acute1; H400 Aquatic Chronic1; H410	< 0,25
Substances with a workplace exposure limit :		
2-methoxy-1-methylethyl acetate 108-65-6 203-603-9 01-2119475791-29-XXXX Contains: 2-methoxypropyl acetate <= 1 %	Flam. Liq.3; H226	>= 5 - < 10

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of 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 : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Aspiration may cause pulmonary oedema and pneumonitis.
Asthmatic appearance
Respiratory disorder
Allergic reactions
Erythema
Headache
Dermatitis
See Section 11 for more detailed information on health effects and symptoms.

Risks : Risk of serious damage to the lungs (by aspiration).
irritant effects
sensitising effects

May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye irritation.
Harmful if inhaled.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Alcohol-resistant foam, Carbon dioxide (CO2), Dry chemical
Unsuitable extinguishing media	:	Water, High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Do not use a solid water stream as it may scatter and spread fire.
Hazardous combustion products	:	No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment. Remove all sources of ignition. Deny access to unprotected persons. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Environmental precautions	:	Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for 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).

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	Avoid formation of aerosol. Do not breathe vapours 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 sensitisation 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 application area. Take precautionary measures against static discharge. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Follow standard hygiene measures when handling chemical products
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 discharges.
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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.
Other data	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)	:	No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters *	Basis *
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	CH SUVA
		STEL	50 ppm	CH SUVA

			275 mg/m3	

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this safety data sheet.

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
xylene	1330-20-7	xylol: 1,5 mg/l (Blood)	Immediately after exposition or after working hours	CH BAT
		methyl hippuric acid: 1.5g/g creatinine (Urine)	Immediately after exposition or after working hours, In case of long-term exposition: after more than one shift	CH BAT
		methyl hippuric acid: 874µmol/mmol creatinine (Urine)	Immediately after exposition or after working hours, In case of long-term exposition: after more than one shift	CH BAT
		xylol: 14.1micromol per litre (Blood)	Immediately after exposition or after working hours	CH BAT

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields
Eye wash bottle with pure water

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:
Butyl rubber/nitrile rubber gloves (0,4 mm),
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.

Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionaly recommended for mixing and stirring work.

Respiratory protection	:	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. 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. organic vapor filter (Type A) A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficent to keep the concentrations under the occupational exposure limits then respiration protection measures must be used. Ensure adequate ventilation, especially in confined areas.

Environmental exposure controls

General advice	:	Prevent product from entering drains. If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	colourless
Odour	:	characteristic
Odour Threshold	:	No data available
Flash point	:	48 °C
Autoignition temperature	:	330 °C
Lower explosion limit	:	0 %(V)
Upper explosion limit	:	7,5 %(V)
Flammability	:	No data available
Oxidizing properties	:	No data available
pH	:	No data available
Melting point/range / Freezing point	:	No data available

Boiling point/boiling range	:	No data available
Vapour pressure	:	7,9993 hPa
Density	:	ca.1,01 g/cm3 at 20 °C
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available
Relative vapour density	:	No data available
Evaporation rate	:	No data available

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Stable under recommended storage conditions. Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid	:	Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid	:	No data available

10.6 Hazardous decomposition products

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful if inhaled.

Components:

1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate:

Acute oral toxicity	:	LD50 Oral (Rat): > 2.000 mg/kg
Acute dermal toxicity	:	LD50 Dermal (Rat): > 2.000 mg/kg

xylene:

Acute dermal toxicity	:	Acute toxicity estimate: 1.100 mg/kg Method: Converted acute toxicity point estimate

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

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

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.
Respiratory sensitisation: 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.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1 Toxicity

Components:

1,6-hexanediyl-bis(2-(2-(1-ethylpentyl)-3-oxazolidinyl)ethyl)carbamate :

Toxicity to fish	:	LC50: 316 mg/l, 96 h, Danio rerio (zebra fish)
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 193 mg/l, 48 h, Daphnia (water flea)
Toxicity to algae	:	IC50: 43 mg/l, 72 h, Desmodesmus subspicatus (green algae)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. 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 spilled material and runoff and contact with

soil, waterways, drains and sewers.

Waste code Switzerland VeVA/LVA	:	08 01 11: -
Contaminated packaging	:	15 01 10* packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

ADR

14.1 UN number	:	1866
14.2 Description of the goods	:	RESIN SOLUTION
14.3 Class	:	3
14.4 Packing group	:	III
Classification Code	:	F1
Labels	:	3
Tunnel restriction code	:	(D/E)
14.5 Environmentally hazardous	:	no

IATA

14.1 UN number	:	1866
14.2 Description of the goods	:	Resin solution
14.3 Class	:	3
14.4 Packing group	:	III
Labels	:	3
14.5 Environmentally hazardous	:	no

IMDG

14.1 UN number	:	1866
14.2 Description of the goods	:	RESIN SOLUTION
14.3 Class	:	3
14.4 Packing group	:	III
Labels	:	3
EmS Number 1	:	F-E
EmS Number 2	:	S-E
14.5 Marine pollutant	:	no

14.6 Special precautions for user
No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Prohibition/Restriction

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	None of the components are listed (=> 0.1 %).
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable

REACH Information: All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
P5c	FLAMMABLE LIQUIDS	5.000 t	50.000 t

Water contaminating class (Germany)	:	WGK 2 water endangering
VOC-CH (VOCV)	:	32,7 %
VOC-EU (solvent)	:	32,7 %
Other regulations	:	Observe occupational restrictions for young people at work.

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Full text of H-Statements

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.

H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
Resp. Sens.	Respiratory sensitisation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
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 dosis (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.

Changes as compared to previous version !