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

1.1 Product identifier

Grafen Professional Industrial polyurethane sealant PU50

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

Relevant identified uses: Used for mounting bumpers, sealing welding seams. It is resistant to water. It is paintable.

Available colors: white/ grey/ black

Uses advised against: No further relevant information available.

1.3 Details of the supplier of the safety data sheet:

Supplier:	Madejski Sp. J.
Street address:	ul. Makuszyńskiego 28
Country/Postcode:	Poland, 31-752 Kraków
Telephone number:	+48 (12) 643 67 67

e-mail:	info@madejski.com.pl
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1.4 Emergency telephone number:	112
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Mixture:

Classification according to Regulation (EC) No 1272/2008 (CLP)

Skin Irrit.2 H315 Causes skin irritation – category 2

Eye Irrit.2 H319 Causes serious eye irritation – category 2

2.2 Label elements

Supplemental information on the label:

EUH204 Contains isocyanates. May produce an allergic reaction.

Hazard pictograms:



Signal word:

WARNING

Hazard statements:

H315 Causes skin irritation.


H319 Causes serious eye irritation.

Precautionary statements:

P102 Keep out of reach of children

P264 Wash hands thoroughly after handling.

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

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P302 + P352 IF ON SKIN: Wash with plenty of water with soap.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container to in accordance with local/ regional/national/international regulation.

2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures:

Name	Identifiers	[% weight]	Classification according to Regulation (EC) No 1278/2008 (CLP).
Xylene	Index No: 601-022-00-9 EC No: 215-535-7 CAS No: 1330-20-7 REACH Registration No.: - *	≤10	Flam. Liq.3 H226 Acute Tox.4 H312 Skin Irrit.2 H315 Acute Tox.4 H332 Note C
Ethylbenzene	Index No: 601-023-00-4 EC No: 202-849-4 CAS No: 100-41-4 REACH Registration No.: - *	≤5	Flam. Liq.2 H225 Asp. Tox.1 H304 Acute. Tox.4 H332 STOT RE.2 H373
Distillate Petroleum Light	Index No:: 649-422-00-2 EC No: 265-149-8 CAS No: 64742-47-8 REACH Registration No: - *	≤1	Asp. Tox.1 H304
[3-(2,3-epoxypropoxy)propyl]trimethoxysilane	Index No:: --- EC No: 219-784-2 CAS No: 2530-83-8 REACH Registration No: - *	≤1	Eye Dam.1 H318
Diphenylmethane-4,4'-diisocyanate**	Index No:: 615-005-00-9 EC No: 202-966-0 CAS No: 101-68-8 REACH Registration No: - *	<0,1	Skin Irrit.2 H315 Skin Sens.1 H317 Eye Irrit.2 H319 Acute Tox.4 H332 Resp. Sens.1 H334 STOT SE.3 H335 Carc.2 H351 STOT RE.2 H373 Note C Note 2

*A registration number is not available for this substance as the substance is exempted from registration or the annual tonnage does not require a registration.

** Specific concentration limits for CAS 101-68-8:


STOT SE 3; H335: C ≥ 5 %

Resp. Sens. 1; H334: C ≥ 0,1 %

Skin Irrit. 2; H315: C ≥ 5 %

Eye Irrit. 2; H319: C ≥ 5 %

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

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Note 2 The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

The Full Text for all H-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Following eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

Following inhalation: Move the exposed person to fresh air at once. Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

Following skin contact: Immediately remove contaminated clothing. Wash the skin with soap and water. Contaminated clothing should be washed before re-use. Get medical attention promptly if symptoms occur after washing.

Following ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical advice. Provide ventilation.

4.2 Most important symptoms and effects, both acute and delayed

Irritation of the skin and eyes.

4.3. Indication of any immediate medical attention and special treatment needed

If any symptoms persist seek medical advice and show the msds or label.

Notes for the doctor: Treat Symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: foam, carbon dioxide, dry powder, water spray

Unsuitable extinguishing media: do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases.

5.3 Advice for firefighters

Special Fire Fighting Procedures: Wear full protective clothing and self-contained breathing apparatus.

Protective equipment for fire-fighters: Keep containers cool by spraying with water. If possible remove containers from the danger zone. Prevent from spreading or entering drains, ditches or rivers. Dispose of released and contained material in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:


Removed from the danger area all persons not involved in the emergency. If necessary, order the evacuation. Avoid contact with skin, eyes. Avoid inhalation of vapours / aerosols. Provide ventilation.

For emergency responders:

Wear protective clothing as described in Section 8.

6.2 Environmental precautions

Do not discharge into drains, water courses or into the ground. Local authorities should be advised if any exposure to the environment occurs.

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6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (eg. sawdust, sand). After 1 hour, collect in a waste container. Do not close (it develops carbon dioxide). Keep humid and leave for many days in the open air, in a controlled area. Dispose of waste according to the applicable local and national regulation

6.4 Reference to other sections

See Section 8 for information on personal protective equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures:

Use only in a well-ventilated area. Avoid breathing vapor or aerosol. Avoid contact with eyes, skin. When handling, use appropriate personal protective equipment (see Section 8). Keep away from heat, sparks, flame and all other sources of ignition. Do not smoke! When using do not eat or drink.

Advice on general occupational hygiene:

Ensure good ventilation / exhaustion at the workplace. When using do not eat, drink or smoke. Wash hand before and after work with product. Contaminated clothing should be washed before re-use. Avoid spillage.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place (in temperature between +5°C - +25°C). Keep away from heat, sparks, sunlight and open flame. Store away from alcohols, amines.

7.3 Specific end use(s)

Sealant

SECTION 8: Exposure controls/personal protection


8.1 Control parameters

International Limits Values:

Substance	CAS No:	Basis / Country	Short Time Value [mg/m ³]	Short Time Value [ppm-Calculated]	Time Weighted Average Exposure Limit [mg/m ³ -8 h]	Time Weighted Average Exposure Limit [ppm-Calculated]
Xylene	1330-20-7	Germany	200	880	100	440
		European Union	100	442	50	221
Ethylbenzene	100-41-4	Germany	40	176	20	88
		European Union	200	884	100	442
Distillate Petroleum Light	64742-47-8	Germany European Union	100 -	700 -	50 -	350 -
Diphenylmethane-4,4'-diisocyanate	101-68-8	Germany European Union	0,05 -	- -	0,05 -	- -

DNEL, PNEC – no data available

8.2 Exposure controls

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Appropriate engineering controls

Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear approved chemical safety goggles where eye exposure is reasonably probable. Use equipment for eye protection tested and approved under appropriate government standards such as EN 166.

Skin protection

Hand protection: Use gloves. Gloves must be inspected prior to use. Recommended gloves:

Material: nitrile

Minimum layer thickness: >0.3mm

Break through time: 480 min

The selected protective gloves have to satisfy the specifications of Directive 89/686 / EEC and EN 374.

Other: Wear protective clothing. Contaminated clothing should be washed before re-use.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a face respirator. It is recommended to use respiratory equipment with filter A meeting requirements EN 14387.


Environmental exposure controls

Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. Do not discharge into drains, water courses or into the ground. Local authorities should be advised if any exposure to the environment occurs.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	White/ grey/ black/various color paste
Odour	Characteristic
Odour threshold	No data available
pH	No data available
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	1,12-1,18 gr/cm ³
Solubility(ies)	Insoluble; react with water
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available

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Explosive properties No data available

Oxidising properties No data available

9.2 Other information:

no data available

SECTION 10: Stability and Reactivity

10.1 Reactivity

Not reactive under normal conditions of storage and use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reacts with alcohols and amines. Reacts with water forming carbon dioxide.

10.4 Conditions to avoid

Avoid release to the environment. Avoid heat, flames and other sources of ignition.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

No data available for the mixture

Ethylbenzene

LD50 (rat, oral)	3500 mg/kg bw
LC50 (rat, inhalation)	17,8 mg/l
LD50 (rabbit, dermal)	15432 mg/kg bw

Distillate Petroleum Light

LD50 (rat, oral)	>5000 mg/kg bw
LC50 (rat, inhalation)	>0.1 mg/L
LD50 (rabbit, dermal)	>2500 mL/kg bw

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

LD50 (rat, oral)	8025 mg/kg bw
LC50 (rat, inhalation)	>5.3 mg/L
LD50 (rabbit, dermal)	4250 mg/kg bw

Diphenylmethane-4,4'-diisocyanate

LD50 (rat, oral)	> 7616 mg/kg
LC50 (rat, inhalation)	0.49 mg/l
LD50 (rabbit, dermal)	9400 mg/kg bw.

Skin corrosion/irritation


Classified as causes skin irritation.

Serious eye damage/irritation

Classified as causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

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Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information

Contains isocyanates. May produce an allergic reaction.

SECTION 12: Ecological information

12.1 Toxicity

No data available for the mixture

Xylene

Fish(Bryconamericus iheringii)	LC50	6.9 mg/L	exposition time : 96h
Aquatic invertebrates (Daphnia magna)	IC50	1 mg/L	exposition time : 24h
Algae and bacteria (Pseudokirchneriella subcapitata)	EC50	4.36 mg/L	exposition time : 73h

Ethylbenzene

Fish(Salmo gairdneri)	LC50	4.2 mg/l	exposition time : 96h
Aquatic invertebrates (Daphnia magna)	EC50	1.8 – 2.4 mg/L	exposition time : 48h
Algae and bacteria (Skeletonema costatum)	EC50	> 438 mg/L	exposition time : 96h

Distillate Petroleum Light

Fish (Oncorhynchus mykiss)	LL50	2-5 mg/L	exposition time : 96h
Aquatic invertebrates (Daphnia magna)	EL50	1.9 mg/L	exposition time : 48h
Algae and bacteria (Pseudokirchnerella subcapitata)	EL50	1.3 mg/L	exposition time : 48h

[3-(2,3-epoxypropoxy)propyl]trimethoxysilane

Fish (Cyprinus carpio)	LC50	55 mg/L	exposition time : 96h
Aquatic invertebrates (Daphnia magna)	EC50	473 mg/L	exposition time : 48h
Algae and bacteria (Selenastrum capricornutum)	EC50	350 mg/L	exposition time : 96h

Diphenylmethane-4,4'-diisocyanate

Fish (Danio rerio)	LC50	> 1000 mg/l	exposition time : 96h
Aquatic invertebrates (Daphnia magna)	EC50	129.7 mg/l	exposition time : 24h
Algae and bacteria (Desmodesmus subspicatus)	EC50	> 1640 mg/l	exposition time : 72h

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.


12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

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No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Proposed waste code

08 04 09* Waste adhesives and sealants containing organic solvents or other hazardous substances

SECTION 14: Transport Information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1. UN number	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es) label	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards	Not applicable	Not applicable	Not applicable	Not applicable
14.6. Special precautions for user	Not applicable	Not applicable	Not applicable	Not applicable
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable	Not applicable	Not applicable	Not applicable

SECTION 15: Regulatory information

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

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

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), Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

2014/955/EU: Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council Text with EEA relevance

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

SECTION 16: Other information


Classification according to Regulation (EC) No. 1272/2008

Classification procedure: calculation method

Skin Irrit.2 H315

Eye Irrit.2 H319

Relevant H-statements (number and full text)

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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.
 H318 Causes serious eye damage
 H319 Causes serious eye irritation
 H332 Harmful if inhaled.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335 May cause respiratory irritation.
 H351 Suspected of causing cancer
 H373 May cause damage to organs through prolonged or repeated exposure

Additional Information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, Information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Product Safety Data Sheet to their own Product Safety Data Sheet.

Update: section 2,3,4,7,8,9,10,11,12,15,16.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary –even for the same product between different countries, reflecting the different compliance requirements.