SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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

1.1. Product identifier

Trade name: **CrackFlex - Component A**

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

Relevant identified uses: industrial application; injection resin for waterproofing.

Uses advised against: not determinate.

1.3. Details of the supplier of the safety data sheet

Manufacturer: **ResinBau sp. z o.o.**

Address: ul. Frezerów 3, 20-209 Lublin, Poland

Telephone/Fax number: +48 42 716 23 38/+48 42 716 23 54

E-mail address for a competent person responsible for SDS info@resinbau.com

1.4. Emergency telephone number

112

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Acute Tox. 4 H302
Harmful if swallowed.

2.2. Label elements

Hazard pictograms and signal words

Attention

Names of dangerous components placed on label:

Contains: poly(propylene glycol); polypropylene glycol.

Hazard statements

H302 Harmful if swallowed.

Precautionary statements

P264 Wash hands thoroughly after work.

P270 Do not eat, drink or smoke when using this product.

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 Rinse mouth.

P501 Dispose of contents/container to properly labeled containers for selective waste collection emptied by an authorised company.

Additional information

No data.

2.3. Other hazards

The components do not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation REACH.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Section 3: Composition/ information on ingredients

3.1. Substances

N/A

3.2. Mixtures

CAS number: 25791-96-2 EC number: 500-044-5 Index number: — Registration number:	**poly(propylene glycol)** Acute Tox. 4 H302	50 % ≤ C < 100 %
CAS number: 25322-69-4 EC number: 500-039-8 Index number: — Registration number:	**polypropylene glycol** Acute Tox. 4 H302	10 % ≤ C ≤ 25 %
CAS number: 78-08-0 EC number: 201-081-7 Index number: — Registration number:—	**triethoxyvinylsilane** Flam. Liq. 3 H226	C ≤ 2,5 %

Full text of H phrases in Section 16.

Section 4: First aid measures

4.1. Description of first aid measures

Skin contact:

Remove contaminated clothing. Wash the exposed parts of the skin thoroughly with soap and water. Consult a doctor if worrying symptoms occur.

Eye contact:

Protect non-irritated eye, remove contact lenses. Rinse contaminated eyes thoroughly with water for 10-15 min. Avoid strong jets of water - risk of corneal damage. Consult an ophthalmologist immediately.

Ingestion:

Do not induce vomiting. Rinse mouth with water. Never put anything in the mouth of an unconscious person. Call a doctor, show him the container or label.

Inhalation:

Remove victim to fresh air, keep warm and calm. Consult a doctor if worrying symptoms occur.

4.2. Most import ant symptoms and effects, both acute and delayed

Skin contact:

redness, burning

Eye contact:

burning, tearing, pain.

After ingestion:

possible abdominal pain, nausea, vomiting, irritation of the gastrointestinal system.

After inhalation:

Headaches, dizziness, coughing.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Exposure effects

Based on available data, adverse effects of exposure are not known.

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

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: adapt fire-fighting measures to the materials stored in the environment.
Unsuitable extinguishing media: dense stream of water - danger of fire spreading.

5.2. Special hazards arising from the substance or mixture

During combustion, noxious gases containing, among others, carbon oxides, other hazardous unidentified thermal decomposition products may be formed. Avoid inhaling the products of combustion, they may pose a health hazard.

5.3. Advice for firefighters

Collect used fire extinguishing agents. Personal protection typical in case of fire. Cool fire endangered containers from a safe distance with water spray. Do not stay in fire hazard area without suitable chemical resistant clothing and breathing apparatus with independent air circulation. Collect used extinguishing agents.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Restrict access of bystanders to the accident area until appropriate clean-up operations have been completed. Ensure that only trained personnel remove the effects of the accident. In case of large releases isolate the affected area. Use personal protective equipment.

6.2. Environmental precautions

Do not allow product to enter drains, surface water or soil. In the event of a release of larger quantities of product, take steps to prevent spreading in the environment. Notify the relevant emergency services.

6.3. Methods and material for containment and cleaning up

Small spill: collect with non-combustible liquid absorbing material (e.g. sand, earth, universal binders, silica, etc.) and place in waste containers. Treat the collected material as waste. Clean and ventilate the contaminated area.

Large spill: bund the areas where the liquid has accumulated, pump out the collected liquid.

6.4. Reference to other sections

Appropriate conduct with waste product – see section 13.
Appropriate personal protective equipment – see section 8

Section 7: Handling and storage

7.1. Precautions for safe handling

Work in accordance with safety and health rules. Provide general and/or local ventilation in the workplace. Use personal protective equipment. Avoid the formation of vapours. Wash hands before breaks and after finishing work. Keep containers tightly closed when not in use. Do not eat, drink or smoke while working. Avoid contamination of eyes and skin.

7.2. Conditions for safe storage, including any incompatibilities

Store in properly labelled, leak-proof containers in a dry, cool and well-ventilated place. Seal the container after opening and store in an upright position to avoid leakage. Store away from incompatible materials (subsection 10.5.) and foodstuffs and animal feed.

7.3. Specific end use(s)

No information on applications other than those specified in subsection 1.2.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 8: Exposure controls/personal protection

8.1. Control parameters

Maximum allowable concentrations

Product does not contain components with occupational exposure limit values established on the Community level.

Recommended monitoring procedures

N/A

DNEL i PNEC

N/A

8.2. Exposure controls

Appropriate engineering controls

Use the product in accordance with good occupational hygiene and safety practices. When handling do not eat, drink, smoke. Before break and after work wash hands carefully. In the workplace, general and/or local ventilation.

Individual protection measures, such as personal protective equipment

The need for and selection of appropriate PPE should take into account the type of hazard posed by the product, the conditions in the workplace and the handling of the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards. The employer must ensure that the protective equipment is suitable for the activities performed and meets all quality requirements, including maintenance and cleaning. Any contaminated or damaged PPE must be replaced immediately.

Hand protection

Use chemical-resistant protective gloves in accordance with EN 374. Select the glove material individually at the workplace.
The glove material must be impermeable and resistant to the product. The selection of the glove material must take into account penetration times, rates of permeation and degradation. In addition, the choice of suitable gloves does not only depend on the material, but also on other quality characteristics and varies from manufacturer to manufacturer. The exact breakthrough time should be obtained from the glove manufacturer and observed.

Body protection

Depending on the task being performed, use protective clothing appropriate to the potential hazard. For prolonged contact with the product, use protective clothing made of coated or impregnated fabrics.

Eye protection

Wear tightly fitting glasses in accordance with EN 166.

Respiratory protection

In case of vapour and aerosol formation, use absorption or filtering equipment of the appropriate protection class. Protection classes (class 1/protection against vapours with a concentration in the air volume not exceeding 0,1 %, class 2/protection against vapours with a concentration in the air not exceeding 0,5 %, class 3/ protect against vapours at concentrations in the air volume to 1 %). In cases where the oxygen concentration is ≤ 19 % and/or maximum concentration of toxic substances in the air is ≥ 1,0 % by volume, isolating equipment should be used.

Thermal hazards

N/A

Environmental exposure controls

Prevent direct runoff into drains/surface waters. Do not contaminate surface waters and drainage ditches with chemicals or used packaging. Any spill or uncontrolled spills into surface water should be reported to the appropriate authorities in accordance with national and local regulations. Export as chemical waste in accordance with national and local regulations

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Color:	pale yellow
Odour:	characteristic
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	the product is not classified in terms of flammability
Lower and upper explosion limit:	not determined
Flash point:	180 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Kinematic viscosity:	not determined
Solubility:	not determined
Partition coefficient n-octanol/water	not applicable
Vapour pressure:	not determined
Density and/or relative density	1,016 g/cm³ (20 °C)
Relative vapour density:	not determined
Particle characteristics:	not applicable

9.2. Other information

Other safety features

Volatile organic compound content:	0 %
Organic solvent content:	0 %
Dynamic viscosity:	300 mPa·s

Section 10: Stability and reactivity

10.1. Reactivity

Product is reactive. See also subsections 10.3-10.5

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Dangerous reactions are unknown.

10.4. Conditions to avoid

Avoid sources of heat, direct sunlight.

10.5. Incompatible materials

Materials to avoid contact with: strong oxidisers, strong acids.

10.6. Hazardous decomposition products

Not known.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

poly(propylene glycol) [CAS 25791-96-2]	
LC_{50} (oral, rat)	> 2000 mg/kg
LC_{50} (skin, rat)	> 2000 mg/kg

polypropylene glycol [CAS 25322-69-4]	
LD_{50} (oral, rat)	> 5000 mg/kg
LD_{50} (skin, rabbit)	> 3000 mg/kg

triethoxyvinylsilane [CAS 78-08-0]	
LD_{50} (oral, rat)	> 5000 mg/kg
LC_{50} (mist inhalation, rat)	> 17876 mg/m³/7h
LD_{50} (skin, rat)	> 2000 mg/kg

Mixture	
ATE_{mix} (oral route)	500 mg/kg

Harmful if swallowed.

Skin corrosion/irritation

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

Serious eye damage/irritation

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

Respiratory or skin sensitisation

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

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.

Information on likely routes of exposure

Routes of exposure: skin contact, eye contact, inhalation, ingestion. For more information on the impact of each possible route of exposure, see subsection 4.2.

Symptoms related to physical, chemical and toxicological properties

See subsection 4.2 of the Charter.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

See subsection 4.2 of the Charter.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

Other information

Not applicable.

Section 12: Ecological information

12.1. Toxicity

poly(propylene glycol) [CAS 25791-96-2]		
EC_{50} (fish)	> 1000 mg/l / 96 h / *Leuciscus idus*	method: OECD 203
EC_{50} (algae)	>100 mg/l / 72 h / *Desmodesmus subspicatus*	method: —

polypropylene glycol [CAS 25322-69-4]		
LC_{50} (fish)	> 100 mg/l / 96 h / *Danio rerio*	method: EU Method C.1 / OECD 203
EC_{50} (invertebrates)	105,8 mg/l / 48 h / *Daphnia magna*	method: EU Method C.2 / OECD 202
EC_{50} (algae)	> 100 mg/l / 72 h / *Desmodesmus subspicatus*	method: EU Method C.3 / OECD 201
EC_{50} (microorganisms)	> 1000 mg/l / 3 h / —	method: OECD 209

Mixture

The product is not classified as hazardous for the aquatic environment.

12.2. Persistence and degradability

poly(propylene glycol) CAS 25791-96-2	Biodegradable	99%/28 days	method: Zahna-Wellensa
polypropylene glycol CAS 25322-69-4	Easily biodegradable	86,6%/28 days	method: OECD 301 F

12.3. Bioaccumulative potential

No data.

12.4. Mobility in soil

The mobility of the mixture components depends on their hydrophilic and hydrophobic properties and the abiotic and biotic conditions of the soil, including its structure, climatic conditions, season and soil organisms..

12.5. Results of PBT and vPvB assessment

Components do not meet the PBT or vPvB criteria.

12.6. Właściwości zaburzające funkcjonowanie układu hormonalnego

The product does not contain substances included in the list established in accordance with Article 59(1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 % by weight.

12.7. Other adverse effects

The mixture is not classified as hazardous to the ozone layer. The possibility of other detrimental effects of the individual components of the mixture on the environment (e.g. effects on the increase of global warming) should be considered.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods for the mixture:
Waste code should be given in the place of waste formation. The waste product should be recycled or disposed of in authorized incineration plants or waste treatment/disposal plants in accordance with applicable regulations. Do not empty into drains. Store residues in original containers.

Disposal methods for used packing:
recover / recycle / eliminate packaging waste in accordance with applicable regulations. Waste code should be given in the place of waste formation. Only packaging that is completely empty can be recycled.
Legal basis: Directive 2008/98/EC as amended and 94/62/EC as amended.

Proposed waste codes
Waste code should be given in the place of waste formation.

Section 14: Transport information

14.1. UN number or ID number

Not applicable, product is not dangerous during transport.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

Other information
N/A

Section 15: Regulatory information

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

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 (Text with EEA relevance) as amended.
Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
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.
Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.
Regulation (EU) No 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.

The components of the mixture are not included in Annex XVII of REACH.
The components of the mixture are not included in Annex XIV of REACH.

15.2. Chemical safety assessment

Chemical safety assessment is not required for mixtures.

Section 16: Other information

Full text of indicated H- phrases mentioned in section 3

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.

Explanation of abbreviations and acronyms

DNEL	Derived No Effect Level.
EN	European norm
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No Effect Concentration
RID	Règlement concernant le transport international ferroviaire des marchandises dangereuses
vPvB	very Persistent, very Bioaccumulative substance
Acute Tox. 4	Acute Toxicity category 4
Flam. Liq. 3	Flammable liquid - category 3

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo proper workplace training.

SAFETY DATA SHEET

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Key literature references and data sources

The safety data sheet was prepared on the basis of the safety data sheet provided by the manufacturer, literature data, internet databases (e.g. ECHA, TOXNET, COSING) and our knowledge and experience, taking into account the current legislation in force.

Procedures used to classify the mixture according to EC Regulation 1272/2008 as amended.

Acute Tox. 4 H302	calculation method

Other data

Changes:	section: 1-16
Safety Data Sheet made by:	THETA Consulting Sp. z o.o.

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.