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

· **1.1 Product identifier**

· **Trade name: TYTAN PROFESSIONAL PB-350 Klej poliuretanowy do drewna**

· **Article number:** A-436
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
· **Product category** PC1 Adhesives, sealants
· **Application of the substance / the mixture**
Construction chemicals
Adhesives

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
TP
Selena S.A.
ul. Legnicka 48A, 54 -202 Wrocław, Poland
e-mail: kontakt@selena.com
Selena Contact Center 801 350 500
BDO: 000015312

· **Further information obtainable from:** msds@selena.pl
· **1.4 Emergency telephone number:** European emergency number: 112 (24h)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Resp. Sens. 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2	H351 Suspected of causing cancer.
STOT RE 2	H373 May cause damage to organs through prolonged or repeated exposure.

GHS07

Acute Tox. 4	H332 Harmful if inhaled.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.

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· **Hazard pictograms**

GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labelling:**
diphenylmethanediisocyanate, isomers and homologues

· **Hazard statements**
H332 Harmful if inhaled.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an allergic skin reaction.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements**
P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P281 Use personal protective equipment as required.
P285 In case of inadequate ventilation wear respiratory protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container to hazardous or special waste collection point.

· **Additional information:**
As from 24 August 2023 adequate training is required before industrial or professional use. Further information at: www.feica.eu/PUinfo
Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
EUH204 Contains isocyanates. May produce an allergic reaction.

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Determination of endocrine-disrupting properties**		
CAS: 1244733-77-4	tris(2-chlorisopropyl)-phosphate	List II

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

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· **Dangerous components:**

CAS: 9016-87-9 EC number: 618-498-9	diphenylmethanediisocyanate, isomers and homologues Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Skin Irrit. 2; H315: C ≥ 5 % Eye Irrit. 2; H319: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; C ≥ 5 %	<60.000%
CAS: 1244733-77-4 EC number: 807-935-0 Reg.nr.: 01-2119486772-26-xxxx	tris(2-chlorisopropyl)-phosphate Acute Tox. 4, H302	<25.000%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
Take affected persons out into the fresh air.
In case of unconsciousness do not give anything by mouth.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· **After swallowing:** If symptoms persist consult doctor.
· **4.2 Most important symptoms and effects, both acute and delayed**
Headache.
Nausea.
Coughing.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
Foam.
Fire-extinguishing powder.
Carbon dioxide.
Water spray.
Use fire extinguishing methods suitable to surrounding conditions.
· **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Nitrogen oxides (NOx).
Carbon monoxide (CO).
Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
Hydrogen cyanide (HCN)

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Isocyanates

· **5.3 Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Keep people at a distance and stay on the windward side.
Ensure adequate ventilation.

· **6.2 Environmental precautions:** Do not allow to enter sewers / surface or ground water.

· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Keep away from heat and direct sunlight.
Store in cool, dry place in tightly closed receptacles.
Ensure good ventilation / exhaustion at the workplace.
Prevent formation of aerosols.

· **Information about fire - and explosion protection:** No special measures required.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.

· **Information about storage in one common storage facility:**
Store away from water.
Do not store together with acids.
Do not store together with alkalis (caustic solutions).

· **Further information about storage conditions:**
Protect from frost.
Keep container tightly sealed.

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
WEL	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

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· **DNELs**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues		
Oral	DNEL	20 mg/kg/Tag (General population, consumers)
Dermal	DNEL	0.05 mg/kg/Tag (General population, consumers)
Inhalative	DNEL	0.05 mg/m3 (General population, consumers)
		0.05 mg/m3 (Workers)
CAS: 1244733-77-4 tris(2-chloro-1-methylethyl)phosphate		
Inhalative	DNEL	82 mg/m3 (algae)

· **PNECs**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
(freshwater)	1 mg/l
(sea water)	0.1 mg/l
(soil)	1 mg/kg

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see item 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Respiratory protection:**
Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2
· **Hand protection**

Protective gloves

EN 374
The glove material has to be impermeable and resistant to the product / the substance / the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
· **Material of gloves**
Butyl rubber, BR
Chloroprene rubber, CR
Nitrile rubber.
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As th e product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
≥ 480 min
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

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· **Eye/face protection**

Tightly sealed goggles

EN 166

· **Body protection:**
Protective work clothing.
Work shoes.
CE cat. II; CEN: EN ISO 13287, EN 20347

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Physical state**	Liquid
· **Colour:**	Brown
· **Odour:**	Weak, characteristic
· **Odour threshold:**	Not determined
· **Melting point/freezing point:**	Not determined
· **Boiling point or initial boiling point and boiling range**	>200 °C
· **Flammability**	Not applicable
· **Lower and upper explosion limit**	
· **Lower:**	Not determined
· **Upper:**	Not determined
· **Flash point:**	>200 °C
· **Ignition temperature:**	>140 °C
· **Decomposition temperature:**	Not determined
· **Viscosity:**	
· **Kinematic viscosity**	Not determined
· **Dynamic:**	9800 +/- 2000 mPas
· **Solubility**	
· **water:**	Reacts with water
· **organic solvents:**	Soluble in many organic solvents.
· **Partition coefficient n-octanol/water (log value)**	Not determined
· **Vapour pressure:**	Not determined
· **Density and/or relative density**	
· **Density:**	Not determined
· **Relative density**	Not determined
· **Vapour density**	Not determined
· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Liquid

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· **Important information on protection of health and environment, and on safety.**	
· **Auto-ignition temperature:**	Product is not selfigniting
· **Explosive properties:**	Product does not present an explosion hazard
· **Change in condition**	
· **Evaporation rate**	Not determined

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity**
No hazardous reactions if the regulations / notes for storage and handling of the product will be respected.
· **10.2 Chemical stability** Stable if used according to specifications.
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions** Reacts with alcohols, amines, aqueous acids and alkalis.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:**
Strong acids, alkalis and oxidising agents.
Amines, alcohols and water
· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity**
Harmful if inhaled.

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· **LD/LC50 values relevant for classification:**

CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues		
Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>10000 mg/kg (rabbit)
CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate		
Oral	LD50	630 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation**
Causes serious eye irritation.
· **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity**
Suspected of causing cancer.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure**
May cause respiratory irritation.
· **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **Additional toxicological information:**
· **Repeated dose toxicity** Repeated inhalation of even small doses can cause lung damage.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**		
CAS: 1244733-77-4	tris(2-chlorisopropyl)-phosphate	List II

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SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues	
EC50	1640 mg/kg (algae)
	>500 mg/kg (daphnia)
LC50	>1000 mg/l (fish)
CAS: 1244733-77-4 tris(2-chlorisopropyl)-phosphate	
EC50	47 mg/l (algae)

· **12.2 Persistence and degradability**
Not biodegradable.
The product after hardening is a solid, insoluble in the water.
· **12.3 Bioaccumulative potential** Does not accumulate in organisms.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

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· **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
· **12.7 Other adverse effects**
· **Additional ecological information:**
· **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Do not allow to enter surface or ground water.
Assigning a code from the waste catalogue depends on the sector, in which the user operates, as well as on arrangements made between the waste generator and a competent environment protection department.
Substance/mixture as a waste compound brings hazardous properties HP: 4, 5,7, 13
Dispose of in a safe manner in accordance with local / national regulations.

· **European waste catalogue**	
15 01 10*	packaging containing residues of or contaminated by hazardous substances
HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP7	Carcinogenic
HP13	Sensitising

· **Uncleaned packaging:**
· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· **14.1 UN number or ID number**	
· **ADR, ADN, IMDG, IATA**	Not applicable
· **14.2 UN proper shipping name**	
· **ADR, ADN, IMDG, IATA**	Not applicable
· **14.3 Transport hazard class(es)**	
· **ADR, ADN, IMDG, IATA**	
· **Class**	Not applicable
· **14.4 Packing group**	
· **ADR, IMDG, IATA**	Not applicable
· **14.5 Environmental hazards:**	
· **Marine pollutant:**	No.
· **14.6 Special precautions for user**	Not applicable.
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.

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· **Transport/Additional information:**	Not classified as dangerous under transport regulations.
· **UN "Model Regulation":**	Not applicable

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SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
1907/2006/CE Regulation, UK REACH
1272/2008/CE Regulation, GB CLP
2020/878/UE Regulation

· **Directive 2012/18/EU**
· **Named dangerous substances - ANNEX I** None of the ingredients is listed.
· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 56, 74

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
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.
EUH204 Contains isocyanates. May produce an allergic reaction.
· **Recommended restriction of use** Information in the appropriate technical data sheet of product.
· **Version number of previous version:** 1

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· **Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2