

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 29.09.2016

Version number 1

Revision: 30.05.2016

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

- **1.1 Product identifier**
- **Trade name: TYTAN PROFESSIONAL IS 13 Fast Adhesive for ETICS**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
Assembly foam
- **Application of the substance / the mixture** Construction chemicals
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
TP  
Selena FM S.A.  
ul. Strzegomska 2-4, 53-611 Wrocław, Poland  
tel.: +48 71 78 38 290, fax: +48 71 78 38 291  
e-mail: office@selenafm.com  
www.selenafm.com
- **Further information obtainable from:** msds@selenafm.com
- **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**



GHS02 flame

Aerosol 1      H222-H229      Extremely flammable aerosol. Pressurised container: May burst if heated.



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 CLP regulation.

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**· Hazard pictograms**

GHS02 GHS07 GHS08

**· Signal word** Danger**· Hazard-determining components of labelling:**

diphenylmethanediisocyanate, isomers and homologues

**· Hazard statements**

- H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.  
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**

- P102 Keep out of reach of children.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P271 Use only outdoors or in a well-ventilated area.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· Additional information:**

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.  
Do not pierce or burn, even after use.  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.  
Do not spray on an open flame or other ignition source.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
EUH204 Contains isocyanates. May produce an allergic reaction.

**· 2.3 Other hazards****· Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients****· 3.2 Chemical characterisation: Mixtures**

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

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· <b>Dangerous components:</b>		
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	30.0 - 60.0%
CAS: 13674-84-5 EINECS: 237-158-7 Reg.nr.: 01-2119486772-26-xxxx	tris(2-chlorisopropyl)-phosphate ⚠ Acute Tox. 4, H302	< 25.0%
CAS: 74-98-6 EINECS: 200-827-9 Reg.nr.: 01-21194869440-21-xxxx	propane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	< 15.0%
CAS: 106-97-8 EINECS: 203-448-7 Reg.nr.: 01-2119474691-31-xxxx	butane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	< 15.0%
CAS: 75-28-5 EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	isobutane ⚠ Flam. Gas 1, H220; Press. Gas C, H280	< 15.0%
CAS: 115-10-6 EINECS: 204-065-8 Reg.nr.: 01-2119472128-37-0001	dimethyl ether ⚠ Flam. Gas 1, H220; Press. Gas C, H280	< 10.0%

· **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.

#### · **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:**

Remove uncured foam using a piece of cloth and an unaggressive solvent, e.g. ethanol. Wash your hands and the cleaned skin surface using soapy water. Cured foam can be removed mechanically with the use of a brush, soap and plenty of water. Use protective cream after skin surface has been cleaned.

#### · **After eye contact:**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

#### · **After swallowing:** Rinse out mouth and then drink plenty of water.

### · 4.2 Most important symptoms and effects, both acute and delayed

Notes to physician: The product irritates the respiratory tract and may trigger sensitisation of the skin and respiratory tract. Treatment of acute irritation or bronchial constriction is primarily symptomatic. Extended medical treatment may be required depending on the degree of exposure and the severity of the symptoms.

### · 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:**

Carbon dioxide.

Fire-extinguishing powder.

Foam.

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Water haze.

Use fire extinguishing methods suitable to surrounding conditions.

**· 5.2 Special hazards arising from the substance or mixture**

Can form explosive gas-air mixtures.

Formation of toxic gases is possible during heating or in case of fire.

**· 5.3 Advice for firefighters****· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

## SECTION 6: Accidental release measures

**· 6.1 Personal precautions, protective equipment and emergency procedures**

Keep away from ignition sources.

Wear protective clothing.

Do not breathe gas / fumes / vapour / spray.

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

**· 6.2 Environmental precautions:**

Do not allow to enter sewers / surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

**· 6.3 Methods and material for containment and cleaning up:**

Uncured foam adheres easily, hence it should be removed with caution. Remove instantly using a piece of cloth and solvents, e.g. acetone, alcohol. Remove cured foam mechanically.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**· 6.4 Reference to other sections** See Section 13 for disposal information.

## SECTION 7: Handling and storage

**· 7.1 Precautions for safe handling**

Ensure good ventilation / exhaustation at the workplace.

Open and handle receptacle with care.

**· Information about fire - and explosion protection:**

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.

**· 7.2 Conditions for safe storage, including any incompatibilities****· Storage:****· Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

**· Information about storage in one common storage facility:**

Do not store together with acids.

Do not store together with alkalis (caustic solutions).

Store away from oxidising agents.

Store away from foodstuffs.

**· Further information about storage conditions:**

Store in vertical position in closed original containers.

Protect from frost.

Store at temperature from +5 °C to +30 °C.

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- Store under lock and key and out of the reach of children.  
 Keep container tightly sealed.  
 Protect from heat and direct sunlight.
- **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/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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**CAS: 101-68-8 4,4'-methylenediphenyl diisocyanate**

WEL	Short-term value: 0.07 mg/m <sup>3</sup> Long-term value: 0.02 mg/m <sup>3</sup> Sen; as -NCO
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**CAS: 106-97-8 butane**

WEL	Short-term value: 1810 mg/m <sup>3</sup> , 750 ppm Long-term value: 1450 mg/m <sup>3</sup> , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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**CAS: 115-10-6 dimethyl ether**

WEL	Short-term value: 958 mg/m <sup>3</sup> , 500 ppm Long-term value: 766 mg/m <sup>3</sup> , 400 ppm
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- **8.2 Exposure controls**

- **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:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Protection of hands:**



Protective gloves

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**

Polyethylene gloves.

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 the 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.

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- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing.

## SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

**Form:** Aerosol  
Rapidly curing foam dispensed by gaseous propellant from an aerosol container

**Colour:** Different according to colouring

- **Odour:** Characteristic

- **pH-value:** -

- **Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not applicable, as aerosol

- **Flash point:** < 0 °C (propellant)

- **Self-igniting:** > +350 °C (propellant)

- **Danger of explosion:** Product is not explosive. However, formation of explosive air / vapour mixtures are possible.

- **Explosion limits:**

**Lower:** +/- 1.5 Vol %

**Upper:** +/- 11.0 Vol %

- **Vapour pressure:** >500 kPa (in the container)  
< 1\*10<sup>-5</sup> mmHg w 25 °C (MDI)

- **Density at 20 °C:** ≤1.3 (PMDI) g/cm<sup>3</sup>

- **Solubility in / Miscibility with water:**

Insoluble  
Reacts with water

- **Partition coefficient (n-octanol/water):** Not determined

- **9.2 Other information** No further relevant information available

## SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**  
Strongly reacts with water and other substances containing an active hydrogen atom.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

· **11.1 Information on toxicological effects**

- **Acute toxicity**  
Harmful if inhaled.

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

<b>CAS: 9016-87-9 diphenylmethanediisocyanate, isomers and homologues</b>		
Oral	LD50	>10000 mg/kg (rat) (OECD401)
Dermal	LD50	>9400 mg/kg (rabbit) (OECD402)
<b>CAS: 101-68-8 4,4'-methylenediphenyl diisocyanate</b>		
Oral	LD50	9200 mg/kg (rat)
Inhalative	LC50/4h	178 mg/l (rat)
<b>CAS: 13674-84-5 tris(2-chlorisopropyl)-phosphate</b>		
Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	> 2000 mg/kg (rat)
Inhalative	LC50/4h	> 0.05 mg/l (rat)

- **Primary irritant effect:**
- **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.
- **Additional toxicological information:**  
Special properties/effects: Over-exposure entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations, including concentrations below the UK Workplace Exposure Limit (WEL). Prolonged contact with the skin may cause tanning and irritant effects.
- **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.

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- **Aspiration hazard** Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:**

**CAS: 13674-84-5 tris(2-chlorisopropyl)-phosphate**

EC50 47 mg/l (96h) (algae)

· **12.2 Persistence and degradability** Not biodegradable.

· **12.3 Bioaccumulative potential** Does not accumulate in organisms.

· **12.4 Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

**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.

· **European waste catalogue**

07 02 08\* other still bottoms and reaction residues

07 02 13 waste plastic

15 01 05 composite packaging

· **Uncleaned packaging:**

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

**SECTION 14: Transport information**

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

1950

· **14.2 UN proper shipping name**

· **ADR**

1950 AEROSOLS

· **IMDG, IATA**

AEROSOLS

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· **14.3 Transport hazard class(es)**

· **ADR**



· **Class** 2 Gases.  
· **Label** 2.1

· **IMDG, IATA**

· **Class** 2 Gases.  
· **Label** 2.1

· **14.5 Environmental hazards:**

· **Marine pollutant:** No.

· **14.6 Special precautions for user**

· **Danger code (Kemler):** Warning: Gases.  
· **EMS Number:** -  
F-D,S-U

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** LQ2  
· **Transport category** 2  
· **Remarks:** Exemption from ADR provisions by LQ principal (rule 3.4.5)  
- Inner packaging, max. 1 liter in capacity; outer packaging – max. gross weight of 30kg.  
- Inner packaging, max. 1 liter in capacity, based on common ground and covered with shrink film – max. gross weight of 20kg.

· **UN "Model Regulation":** UN1950 AEROSOLS, 2.1

**SECTION 15: Regulatory information**

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

· **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 56

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is listed.

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

GB

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### 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

- H220 Extremely flammable gas.
- H280 Contains gas under pressure; may explode if heated.
- 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.

#### • Recommended restriction of use

The information stated above is based on current knowledge and applies to the product in the form in which it is used. Data concerning this product is presented in order to fulfill safety requirements and not to guarantee its specific properties.

In cases when application conditions are not subject to manufacturer's control, the responsibility for safe product use and obeying law regulations in particular, lies on the user's side.

Information in the appropriate technical data sheet of product.

#### • Department issuing SDS: Product safety department.

#### • Abbreviations and acronyms:

- ADR: Accord européen sur le transport 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- SVHC: Substances of Very High Concern
- vPvB: very Persistent and very Bioaccumulative
- Flam. Gas 1: Flammable gases – Category 1
- Aerosol 1: Aerosols – Category 1
- Press. Gas C: Gases under pressure – Compressed gas
- 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

#### • \* Data compared to the previous version altered.

- 1) So far unclassified substance CAS: 13674-84-5 added in pt 3; MDI reclassification.
- 2) Change in classification of compound in pt 2.
- 3) Change in storage temperature in pt 7.
- 4) Pts 11 & 12 enhanced by data for new substances.
- 5) Information about collection of empty containers in 13 pt have been removed.
- 6) Change in pt 15 resulting from compound reclassification.
- 7) CLP classification.

Update date: 01.06.2015