POLYPROPYLENE TATREN
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
Date of issue: 20.05.2005
Revision date: 01.07.2013
Version: 4.0

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
Trade name: TATREN
Chemical name: polypropylene
CAS No. - homo-polymer: 9003-07-0
CAS No. - ethylene-propylene co-polymer: 9010-79-1
REACH registration No.: It is not subject to registration according to the Regulation of the EP and Council EC) No.1907/2006 (Section I, Article 2, Paragraph 9)

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

1.2.1. Relevant identified uses
It is a raw material for the plastics industry with wide range usage: plastic wraps, synthetic fibres, tubes, auto parts, various construction parts, sports accessories, in households, hygiene, etc.
Recommended usage and limitations: reserved for professional users.

1.3. Details of the supplier of the safety data sheet
SLOVNAFT, a.s.
Vlčie hrdlo 1
824 12 Bratislava - Slovakia
T +421-(0)2/4055-1111 - F +421-(0)2/5859-9759
slovnattreaching@slovnft.sk - www.slovnft.sk

1.4. Emergency telephone number
Emergency number: Podnikový dispečing 1: ++0421(0)2/4055 3344
Podnikový dispečing 2: ++0421(0)2/4055 2244
fax: ++0421(0)2/4055 8047
E-mail: podnikovydispecing1@slovnft.sk, podnikovydispecing2@slovnft.sk

<table>
<thead>
<tr>
<th>Country</th>
<th>Official advisory body</th>
<th>Address</th>
<th>Emergency number</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNITED KINGDOM</td>
<td>National Poisons Information Service</td>
<td>Dudley Road B 18 7QH</td>
<td>+44 (0)121 507 4123</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Birmingham 0870600 6266, J.A.Vale</td>
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2. Hazards identification

2.1. Classification of the substance or mixture
Polypropylene TATREN is not classified according to the act No. 67/2010 Coll. of the Slovak Republic, nor according to the Directive 67/548/EEC or the Regulation of the EP and EC Council No. 1272/2008.

2.2. Danger to public health
Polypropylene TATREN has no acute or chronic adverse effect on man’s health if used under conditions for normal usage. It represents no danger at temperatures under 130°C.
In a liquid phase, when melted, it can cause serious burns if contacted with skin and eyes.
Inhalation of its dust can irritate respiratory system and mucous membranes.
Ingestion of a small amount should not cause any troubles. It is biologically inert.

2.3. Danger to environment
Polypropylene TATREN has no toxic effects on environment.
Within the environment, it is an extraneous substance with a very slow decomposition.
It decays when exposed to UV radiation.
It is insoluble in water.
It is biologically inert.

2.4. Other hazards
It is a combustible, but hardly inflammable substance. During combustion toxic and irritating substances may also develop (e.g. carbon monoxide).
The dust is explosive; when the dust concentration in air reaches lower explosion limit an explosion risk arises. The product can be electrostatically charged; sparks developed as a consequence of static electricity can at certain concentrations ignite dust or cause explosion.

3. Composition / information on components / ingredients

3.1. Chemicals characteristics
Chemical name: Polypropylene
Chemical formula: (C3H6)x
CAS number – homo-polymer: 9003-07-0
CAS number – ethylene-propylene co-polymer: 9010-79-1
EINECS or ELINEX number: the substance is a polymer and according to European regulations it does not require EINECS registration.
Polypropylene homo-polymer or ethylene-propylene co-polymer is in a granulated form of a waxy appearance.

### 3.2. Composition / Information on ingredients

Polypropylene may contain stabilizers, antioxidants, and other functional additives none of which contain substances in concentrations exceeding permitted limits.

### 4. First aid measures

#### 4.1. General instructions

No special measures are required.

In case of health problems or in case of doubts it is necessary to consult a doctor and provide him with information from this Safety Data Sheet.

#### 4.2. Inhalation

In case of dust of irritating vapours inhalation take the intoxicated person outside to breathe fresh air.

Visit a professional medical center if difficulties persist.

#### 4.3. Eye contact

In case of dust ingress into eyes wash the eyes thoroughly with plenty of water as any other common mechanical dirtiness.

Visit a professional medical center if difficulties persist.

#### 4.4. Skin contact

In case of a skin contact with melted polymer do not remove it from the skin.

Cool down the burnt area with a stream of cold water and call the professional medical help.

### 5. Firefighting measures

#### 5.1. Appropriate extinguishing media

Foam, dry powder, in case of a large fire use water spray.

#### 5.2. Inappropriate extinguishing media due to safety reasons

Pressurized water stream.

#### 5.3. Special hazard in case of fire

During combustion a dense smoke develops. Dangerous carbon oxides may occur (CO and CO\textsubscript{2}).

#### 5.4. Special hazard of explosion

Creation of dust particles can occur in devices used for transporting the product (e.g. during filling or emptying storage bins, tanks, hoppers, etc.). Cumulating of dust particles into bigger amounts may result in their inflammation or explosion due to induced static charge and thus it is necessary to equip such places with an appropriate static charge lead.

#### 5.5. Special protective equipment for fire-fighters

Complete protective clothing and the self-contained breathing device.

#### 5.6. Other data

In case of a large fire protect people, storages and all other things near the fire by using a water curtain.

### 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Spilled granulate may cause slipping and fall of persons. Do not stay in areas where polymeric dust has been whirled up in order not to inhale it.

Avoid skin contact and eye contact with melted polymer.

#### 6.2. Environmental precautions

Do not flush spilled granulate into the sewer system.

#### 6.3. Methods and material for containment and cleaning up

Spilled granulate sweep up and place into suitable packs (giant bags) or clean bins. Depending on the level of its contamination such granulate can be recycled or liquidated according to valid legal regulations for wastes.

### 7. Handling and storage

#### 7.1. Precautions for safe handling / Manipulation

Observe all fire protection measures (work with open flame is prohibited, remove all possible sources of ignition, smoking is prohibited). During the product's thermal treatment small amounts of volatile hydrocarbons may be released. Thus suction and discharge of hydrocarbons must be locally
secured. Dust from the product represents a potential explosion hazard and as such it must be continuously removed. All devices must be properly grounded.

7.2. Conditions for safe storage, including any incompatibilities

Safety aspects do not require any special measures to be taken during storing the product. When stacking pallets respective norms must be observed that describe the given activity.

8. Exposure controls / personal protection

8.1. Values of exposure limits

The highest permissible exposure limit for total concentration of polypropylene dust in air in the workplace is 5 mg.m⁻³.

8.2. Exposure control

Recommended method for determination of polypropylene dust in workplace air: gravimetry, dustmeter.

8.3. Exposure control in the workplace

A collective protection measure: In case of dust occurrence an effective suction and discharge of dust, it is also recommended to install a local suction ventilation above the processing unit for suction and discharge of vapours from the melted polypropylene.

Individual protection measures: Workers must have personal protection measures at their disposal for eyes protection, for protection of the respiratory system, skin, feet and hands as follows:

- eyes: goggles
- respiratory system: dust-proof respirator
- skin: protective clothing
- feet: closed boots with anti-slip sole
- hands: protective gloves made of para-aramid/carbon blended non-woven felt with thermal insulation with minimum resistance up to 270°C + leather wristband as a forearm protection. As an example we mention five-finger gloves made by KCL Company, type “Karbo TECT with a leather Wristband” with thermal insulation with resistance up to 350°C.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state at 20°C: solid substance
Colour: colourless.
Odour: odourless.
Combustibility grade: C3 – easily combustible
Lower explosion limit (dust) /g.m⁻³/: 32
Density /kg.m⁻³/: 900 - 910
Water solubility at 20°C /g.l⁻¹/: insoluble
Melting temperature (of granules): 158 - 165 °C
Firing point (of granules): 370 - 390 °C
Flash point (of granules): 380 - 390 °C
Flash point of settled polymer dust: 350 °C
Minimum initiating inflammation energy /J/: 0.08
Combustion heat /MJ.kg⁻¹/: 45
Powder density (granulate), /kg.m⁻³/: 470 - 600

9.2. Other data

The above data are informative, accurate physical-chemical data of the product are specified on the product certificate.

10. Stability and reactivity

10.1. Conditions to be avoided

At normal temperature, the product itself is stable, without chemical reactivity. Avoid temperatures above 300°C, fire and flash sources, and static electricity.

10.2. Decomposition products

At high temperatures, under presence of air or oxygen, decomposition starts producing CO, CO₂ and H₂O.
11. Toxicological information

11.1. Acute toxicity
According to contemporary professional knowledge the product is not considered hazardous for people and it has no adverse effects on man’s health. It is not regarded as dangerous according to the directive No. 1999/45/EC. Long-lasting inhaling of its decomposition products can cause headache or may irritate the respiratory system.

11.2. Sensibility
It has no proved sensibility effects.

11.3. Effects of CMR (Carcinogenicity, Mutagenicity, and Reproductive toxicity)
The product has no proved CMR effects.

12. Ecological information

12.1. Ecotoxicity
The product is not considered to be toxic for the environment.

12.2. Persistence and degradability
Within the environment, it is an extraneous substance with a very slow decomposition. It decays when exposed to UV radiation. It is insoluble in water.

13. Information and arrangements for disposal

13.1. Recommended procedure for the substance liquidation
If unwanted spillage of the product – polymeric granulate – occurs, make sure it does not enter the sewer system where it can cause mechanical stoppage. Securing its mechanical collection and removal is needed, either for further processing, recycling, or for landfilling. Its correct combustion does not require any special chimney. Exploitation should be in line with local legal regulations for waste disposal and handling.

13.2. Recommended procedure for evaluation of waste
Material evaluation by recycling R 3, energetic evaluation R 1, – usage as fuel

13.3. Legal regulations concerning waste disposal and handling
The Slovak Republic:
Act No. 409/2006 Coll. that amends Act No. 223/2001 Coll. on wastes,
Public Notice of the Ministry of Environment of the Slovak Republic No. 284/2001 Coll., as later amended
Waste polyethylene is acc. this public notice classified as follows: catalogue waste no.: 070213 waste plastic

European Union:
European waste catalogue and list of hazardous waste (EC)
Waste polyethylene has acc. to EC catalogue waste number: 07 02 13, 16 01 19, 17 02 03 & 20 01 39

14. Transport information

14.1 Transport classification
Substance is not dangerous in accordance with transport regulations. From the transport point of view it has no limitations.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Not required.

15.2. Marking of the product packaging
Not defined / the substance is not classified as hazardous in accordance with the Regulation of the European parliament and of the Council (EC) No. 1272/2008 and with the Directive No. 67/548/EEC/.

15.3. Other legislation, regulations and directives concerning the substance
The Slovak Republic:
Act No. 67/2010 on conditions for marketing chemical substances and chemical mixtures and on amendment and completion of some acts (chemical act)
European Union:
16. Other information

| SDS changed items | : | Section 1-16 – change of the MSDS design. |

Access to information:
Employer is obliged according to the Article 35 of the Regulation of the EP and Council (EC) No. 1907/2006 to make information from the Data Sheet accessible to all employees who use this product, or who are exposed to its effects during the work as well as to representatives of these employees.

- **R-phrases:** not applicable
- **S-phrases:** 16, 22
  - S 16 - Keep away from sources of ignition – No smoking
  - S 22 - Do not breathe dust

Declaration: the Safety Data Sheet has been elaborated in accordance with the Regulation of the EP and of the Council (EC) No. 453/2010 and replaces the Safety Data Sheet elaborated according to the Regulation (EC) No. 1907/2006 REACH, Appendix II. It contains all data that is necessary for securing safety and health protection at work and for protection of environment. This data does not replace qualitative specification and cannot be regarded as a guarantee for suitability and usability of this product for a concrete application. All the data mentioned correspond with the contemporary knowledge and experiences and is in line with legal regulations of the EU. The purchaser is responsible for observance of valid regional legal regulations.