



PETROLKÉMIA

MATERIAL SAFETY DATA SHEET

(according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830)

Polypropylene TIPPLEN

Date of issue:
22.05.1998.

Last revision: 14.12.2018.
Ver. 4.1.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1. Identification of the substance or preparation

Trade name: TIPPLEN
Chemical name: polypropylene
polypropylene – homopolymer (CAS 9003-07-0)
polypropylene – ethylene/propylen copolymer (CAS 9010-79-1)
Registration number: the product is not registered according to Regulation of The European Parliament and of the Council (EC) No. 1907/2006 (Title I, Article 2, Paragraph 9)

1.2. Use of the substance

The substance has a wide range of uses such as: plastic packages, synthetic fibers, automobileindustry parts, various parts for construction/building industries, sport equipment, household,hygienic goods, etc.

1.3. Company/undertaking identification

MOL Petrochemicals Co. Ltd., H-3581 Pf. 20. Tiszaújváros, Hungary
Company registration number (CRN): 05-10-000065

E-mail: sds@tvk.hu

1.4. Emergency telephone

MOL Petrochemicals Co. Ltd., H-3581 Pf. 20. Tiszaújváros, Hungary

Company operator at TVK Plc. (24 hours)
Tel. 36 49-522-222; +36 49-521-198
Fax +36 49-544-196 E-mail: diszpecser@tvk.hu

National Chemical Safety Institute, National Toxicological Information Centre (NTIC); Budapest
1096 Budapest, Nagyvárad tér 2., Hungary
Phone: +36 1 476 6464; Free call: +36 80 201199; Fax: +36 1 476 1138

2. HAZARDS IDENTIFICATION

2.1. Compound classification

TIPPLEN is not classified as a dangerous substance according to the Regulation (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL..

2.2. Particular hazards for human health:

Under conditions of proper use, TIPPLEN has neither acute nor chronic adverse effects on human health.
Dust inhalation may irritate respiratory organs.
Melted product may cause serious burns following the contact with the skin or eyes.
Vapors formed by processing at higher temperatures may irritate respiratory system and eyes.
Ingestion of small amounts should not cause any problems.

2.3. Environmental hazard

TIPPLEN has no harmful effects in the environment. It is a foreign substance in the environmentwith very slow degradation. The degradation is mainly caused by UV irradiation. The

substance is insoluble in water.

2.4. Other information

Flammable, but not readily to ignite. Dangerous and irritating substances may be released by combustion.

The dust is explosive; air-borne dust concentration above the low explosive limit may cause the risk of explosion. The product can become electrostatically charged.

2.5. Other hazards

Not specified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Chemical characteristics

Homopolymer polypropylene or ethylene/propylene copolymer in the form of pellets of wax appearance.

3.2. Hazardous ingredients in product

none

4. FIRST AID MEASURES

4.1. General information

No special precaution measures are needed. In case of health problems or uncertainty seek medical attention and provide information from this material safety data sheet.

4.2. Inhalation

In case of dust or irritating vapors inhalation move the affected person to fresh air. Seek medical advice if the symptoms persist.

4.3. Eye contact

If dust irritates eyes, rinse eyes with water or remove the dust as other common physical contamination. Seek medical advice if the symptoms persist.

4.4. Skin contact

First aid is generally not needed. General hygiene measures should be followed. Don't remove the melted product from the skin. Cool affected area with running cool water and provide medical attention.

4.5. Ingestion

In case of ingestion of bigger amounts seek specialized medical attention.

5. FIRE-FIGHTING MEASURES

5.1. Suitable extinguishing media

Fire – smaller extend: dry extinguishing material, CO₂, sprayed water, or foam

Fire – intensive: sprayed water, water fog, or foam.

5.2. Extinguishing media which shall not be used for safety reasons

Full water-jet.

5.3. Special hazard in case of fire

Irritating gases and dense smokes are produce by the combustion. Carbon oxides (CO and CO₂) may develop.

5.4. Special hazard of explosion

During the transport of the product (e.g. filling or emptying of the silos, tanks, hoppers, etc.) dust particles may be formed in the production facilities, which following its accumulation, may ignite or explode in the consequence of electrostatic charge induction. Measures against electrostatic charging are therefore needed (grounding, measures for safe electrostatic discharging) for these facilities.

5.5. Special protection equipment for firefighters

Full protective clothing and self-contained breathing apparatus.

5.6. Other information

In case of great fire, protect persons, storage facilities, and all other objects near the fire with the water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Spilled pellets may cause slipping hazard and the risk of tumbling. Avoid areas with the scattered air-born dust. Do not inhale the dust. Avoid contact of the melted material with the skin or eyes.

6.2 Environmental precautions

Do not drain spilled material in the canalization system.

6.3 Recommended clean-up methods

Sweep spilled material and place it in appropriate packages (big-bags) or clean containers. According to the level of contamination, the spilled material may be recycled, or disposed in compliance with the relevant waste management legislation.

7. HANDLING AND STORAGE

7.1. Handling

Keep to all fire-fighting measures (do not work with open flame, keep away from all sources of ignition, do not smoke). Prevent dust formation and electrostatic discharging. Prevent accidental releases of the material in the environment during the manipulation.

7.2. Storage

Storage facilities must fulfill all fire safety requirements for buildings, and all electrical appliances must be compliant with the applicable regulations. Store the product in dry, well-ventilated roofed storehouse. Protect from direct sunlight. Recommended storage temperature: -20°C to + 40°C. The product should be kept at least 1 m from the heat sources. Prevent accidental releases of the material in the environment during the storage.

7.3. Specific use(s)

Not specified

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Exposure limit values

Allowed exposure limit value for the whole concentration of polypropylene dust in the air on the workplace is 5 mg.m⁻³.

8.2. Exposure controls

Recommended method for monitoring of polypropylene dust in air on workplace: gravimetry and dustmeter

8.3. Occupational exposure controls

Workplace protective measures:

- in case of dust formation use adequate ventilation.
- installation of the exhaust ventilation equipment over the processing appliances is recommended to exhaust vapors from the melted polypropylene.

Individual protective measures:

The workers should wear personal protection equipment (PPE) for the protection of eyes, Respiratory system, skin, foots and hands, as follows:

<i>Eyes:</i>	- safety goggles
<i>respiratory system:</i>	- ventilation system exhausting dust and vapors is normally required, if not adequate, use respirator.
<i>Skin:</i>	- protective clothing
<i>Legs:</i>	- closed shoes, slip-resistant
<i>Hand:</i>	- protective gloves made of para-aramid/carbon composite fabric, with the heat insulation to min. 270°C and leather sleeves for the forearm protection. For example, five-fingers gloves from KCL, type "Karbo TECT with the leather sleeves" (heat insulation to 350°C) may be used.

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1. General information	
• appearance:	solid
• colour:	colourless
• odour:	odourless
9.2. Important health, safety and environmental information	
• pH-value:	not defined
• boiling point (°C):	not determined
• flash point (°C):	350 -370
• low explosion limit (dust) /g.m ⁻³ :	32
• oxidizing properties:	none
• vapor pressure at 20°C:	not defined
• density /kg.m ³ :	900- 910
• water solubility at 20°C /g.l ⁻¹ :	insoluble
• partitioning coefficient n-octanol/water:	not determined
• viscosity at 20°C /mPa.s /:	not defined at specified temperature
• vapor density:	not defined
• evaporation speed:	not defined
9.3. Other information	
• melting point (pellets), /°C/:	133- 165
• ignition temperature (pellets), /°C/:	370-390
• ignition temperature (settled dust of the polymer), /°C/:	350
• minimum ignition energy /J/:	0,08
• combustion heat / MJ.kg ⁻¹ :	45
• bulk density (pellets), /kg.m ⁻³ :	470-600
10. STABILITY AND REACTIVITY	
10.1. Conditions to avoid	
The substance alone is stable at normal temperatures. Avoid heating over 300°C. Keep away from the sources of ignition and electrostatic discharges.	
10.2. Materials to avoid	
Chlorine, fluorine, strong oxidizing agents.	
10.3. Hazardous decomposition products	
Decomposition under the higher temperatures in the air atmosphere may produce CO, CO ₂ and H ₂ O.	
11. TOXICOLOGICAL INFORMATION	
11.1. Acute adverse effects on human health	
According to current state of expert knowledge this substance is not considered as hazardous for human and has no adverse effects on human health. Acute animal toxicity LD ₅₀ intraperitoneal – rat > 110 000 mg.kg ⁻¹ LD ₅₀ intravenous - rat > 99 000 mg.kg ⁻¹	
11.2. Sensitization	
The substance has no known sensitization effects	
11.3. Repeated dose toxicity	
not determined	
11.4. CMR effects (carcinogenicity, mutagenicity, reproduction toxicity)	
The substance has no known CMR effects.	
12. ECOLOGICAL INFORMATION	
12.1. Ecotoxicity	
not determined	
12.2. Mobility	
not determined	
12.3. Persistence and degradability	
This substance has no harmful effects in the environment. It is a foreign substance in the environment with very slow degradation. The degradation is mainly caused by UV irradiation. The substance is insoluble in the water.	

12.4. Bioaccumulative potential

not determined

12.5. Results of PBT assessment

not determined

12.5. Other adverse effects

The product is not considered as harmful or dangerous material.

13. DISPOSAL CONSIDERATIONS**13.1 Recommended methods for the product disposal**

In case of accidental spillage of the product (pellets of polymer) avoid product entering the canalization system, as it may cause mechanical blockage of the canalization system. Sweep mechanically and transport for further processing, recycling, or dispose in compliance with the relevant waste management legislation.

In all other cases use in compliance with the relevant waste management legislation.

13.2 Recommended methods for the disposal

energetic waste utilization, material waste utilization

13.3. Relevant waste management legislation

Compliance with European Parliament regulations is mandatory.

14. TRANSPORT INFORMATION**14.1. Transport classification**

The substance is not classified as dangerous according to relevant transport regulations.

14.2. Specific precaution measures for the transport

not stated

15. REGULATORY INFORMATION**15.1. Chemical Safety Assessment**

not determined

15.2. Package labeling

Not needed (the substance is not classified as dangerous according to the Act of National Council of HR No. 98/2001 Coll. and the Directive 67/548/EEC), and Regulation (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL.

15.3. Other applicable legislation, regulations, and directives

European Union: Regulation No. 1907/2006 of the European Parliament and of the Council (EC) concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency,

16. OTHER INFORMATION

Indication of changes:

Revision

Modification	Letterhead	Date of issue updated
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Access to information:

According to the Article 35, Regulation EP and EC NO. 1907/2006, workers and their representatives shall be granted access by their employer to the information provided in the safety data sheet in relation for this preparation that they use or may be exposed to in the course of their work.

This material safety data sheet was prepared according to the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council. It contains information important for the health and safety of the user and for the protection of the environment. This information does not replace qualitative specifications and should not be considered as a warranty of suitability and applicability of this product for any specific application. The above mentioned information is based on our current level of knowledge and is in compliance with our legislative regulations. The consumer is responsible for the adherence to the relevant regional legislative regulations.