SM TK CHEMICAL

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Material Safety data sheet

(According to Regulation (EC) No. 1907/2006 (CLP / GHS))

TexPet

TexPet Bottle Grade – CO IV 0.76

1. IDENTIFICATION OF SUBSTANCE/ PREPARATION AND COMPANY/ UNDERTAKING

1.1 Product name: TexPet
Type(Lot No): TexPet Bottle Grade 874-C76

1.2 Use of the Product: Injection Blow Moulding of PET bottles for food applications, containers, jars and Extrusion of APET sheets/ Films and PET straps.

1.3 Company/ Undertaking identification:

1.3.1 Manufacturer:
SM TK CHEMICAL CORPORATION
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1.4 Emergency telephone : +82-2-2001-6182

2. HAZARD IDENTIFICATION

Classification: Not Applicable

Risk phrases: Not Applicable

Safety phrases: Not Applicable

This product is not considered hazardous. The hazards if any are associated with its processing. Polymer dust may represent a fire hazard at sufficient concentrations in presence of ignition sources.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Composition:

Chemical identity	CAS No	EINECS/ELINCS No	Conc.(%)	EC Classification
Polyethylene terephthalate co-polyester resins	25038-59-9	Not listed	100%	Not classified
Hazardous ingredient	-	-	None	-

3.2 Solvents: None

3.3 The polymer contains minor additives such as stabilisers and catalysts. These additives are immobilised by the polymer and are not released with normal use.
At complete combustion, carbon dioxide and carbon monoxide are formed. Other volatiles such as oligomers of PET, acetaldehyde and Low molecular weight alcohols/ aldehydes are also formed.

3.4 Remarks on special components:

The chips contain minor additives and stabilizers, which are not considered as hazardous as defined by OSHA hazard Communication Standard (29 CFR 1910.1200)

3.5 The Product does not contain any SVHC (Substance of Very High Concern) as per the latest list published by the ECHA.

4. FIRST AID MEASURES

4.1 Inhalation:	Inhalation of dust and decomposition products should be avoided by hood suction and fresh air ventilation. In case of coughing or other symptoms, the person should seek fresh air and if necessary, see a physician.
4.2 Skin contact:	Molten material can cause severe burns. DO NOT try to peel molten polymer from the skin. Cool rapidly with water. Burns should be treated as thermal burns. The plastic material will come off, as healing occurs; therefore, immediate removal from the skin is not necessary.
4.3 Eye contact:	Low hazardous for usual industrial handling. Use of safety glasses with side shields is recommended. Flush eyes with water while holding eyelids open to remove product fines. If irritation continues, consult a physician.
4.4 Ingestion:	It is unlikely to occur. If it occurs, treat symptomatically. Do not induce vomiting. Call in a physician and show him the Data Sheet.

5. FIRE-FIGHTING MEASURES

5.1 Burning behaviour:

Flammable class:	Not determined
Flash point:	Not applicable**.** Product burns in fire.
Self-ignition temperature:	515 °C DIN 51794
Decomposition temperature:	> 300 °C

5.2 Suitable extinguishing media:	Water Spray, Dry Chemical Powder and Carbon dioxide.
5.3 Extinguishing media which must not be used for safety reasons:	Do not use water, if fire is caused by an electrical short circuit.
5.4 Special exposure hazards in a fire:	Low fire hazard. Uncommon with many organic compounds in granular / powder form, it can produce flammable dust clouds in air. On complete combustion, the major products formed are carbon dioxide & water. Remove ignition sources. Beware of electrostatic charges.
5.5 Special protective equipment for fire-fighters:	Wear self-contained breathing apparatus, protective clothing and headgear to prevent contact with skin & eyes.

5.6 Further information: Oxides of Carbon (CO, CO_2) and low-molecular-weight organic compounds depending on temperature and air supply.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Spillages may be slippery. Clear up spillages.
The molten polymer may remain hot for some time due to low thermal conductivity. Use care when disposing of molten mass.
Do not breathe vapours or fumes that may be evolved during processing.
Material can be handled hot/ molten. Contact with hot/ molten polymer can cause burns. Avoid contact with molten material.

Environmental precautions: In case of accidental spills, do not allow entering drains and waterways. When picked up, treat material as prescribed under heading “Disposal considerations”. Use proper personal protection.

Methods for cleaning up: Clean up by vacuuming or wet sweeping to minimize dust exposure. Sweep up and recover, or mix material with moist absorbent and shovel into suitable chemical waste container.

7. HANDLING AND STORAGE

7.1 Handling: Adequate ventilation and cleanliness must be employed in the processing area.
Area should be controlled using good occupational hygiene practices. Accumulation of the dust may represent a fire and explosion hazard at sufficient concentrations. Remove ignition sources. Beware of electrostatic charges.

7.2 Storage: Storage temperatures: Ambient.
Keep containers closed when not in use. Store in a cool & dry place.
Do not store near flame, ignition sources, direct sunlight or incompatible materials. Maintain good housekeeping to control dust accumulations.

7.3 Specific use(s): No specific end-use related recommendation needs to be followed

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Exposure limit values: Comply with national occupational threshold values for dust or powder. According to TRGS 900 (Germany) there are two values:

a) 3 mg/m_3 - for fine dust
b) 10 mg/m_3 - for coarse dust

8.2 Exposure controls: Avoid accumulation of dust and decomposition products during extrusion operations by hood suction, sufficient fresh air supply and proper house keeping.

8.2.1 Occupational exposure controls:

a) Respiratory protection: For operations where inhalation exposure can occur, a NIOSH approved respirator recommended by an industrial hygienist may be necessary.

b) Hand protection: Protective gloves are required when handling hot polymer.

c) Eye protection:	When using material in cold processing (e.g. cutting, stamping, grinding), wear suitable eye protection. Wear safety glasses or a face shield while doing extrusion operations.
d) Skin protection:	Use long sleeve cotton shirt and long pants or hot suite while handling molten polymer. Gloves should be worn to protect against thermal burns. A safety shower and washing facilities should be available.

8.2.2 Environmental exposure controls: Exhausted dust and decomposition products shall be properly collected and disposed off.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information

Appearance	Pellets, Opaque White
Odour	Odourless

9.2 Important health, safety and environmental information

pH	Not applicable
Melting point/ range	> 240 °C
Flash point	Data not available
Flammability	Data not available
Explosive properties	Data not available
Oxidising properties	None
Vapour pressure	Not applicable
Relative density	> 1.35 g/cm3
Solubility	Insoluble in common solvents
Water solubility	Insoluble
Partition coefficient	Not applicable
Viscosity	Not applicable
Vapour density	Not applicable
Evaporation rate	Not applicable

10. STABILITY AND REACTIVITY

10.1 Conditions to avoid: Material is stable under normal conditions. Temperatures above 300 °C lead to thermal decomposition (see also 5.6)

10.2 Materials to avoid: Acetic anhydride, acetone, aniline, benzene, chloroform, chromic acid, cyclohexanone, dimethylformamide, dioxan, ethyl acetate, methyl ethyl ketone, methylene chloride, phenol, tetrahydrofuran, trichloroethylene, triethanolamine, caustic soda. Strong oxidation agents as well as strong acids and caustic will decompose polyester.

10.3 Hazardous decomposition products	Above the decomposition temperature, the major volatiles will be terephthalic acid, oligomers of PET, carbon dioxide, carbon monoxide, acetaldehyde, and low molecular weight alcohols/ aldehydes

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxicity	Low oral toxicity.
11.2 Inhalation	Low acute toxicity. Dusts and vapours or fumes evolved during thermal processing may cause irritation to the respiratory system.
11.3 Skin irritation	No evidence of irritant effect from normal handling and use.
11.4 Eye irritation	Dust may have irritant effect on eyes. Permanent damage is unlikely.
11.5 Ingestion	Data not available.

TexPet is a non-toxic polymer. Proper use of these chips has not been associated with a special hazard or any detrimental effects on health. Polymer dust may represent a fire hazard at sufficient concentrations in presence of ignition sources.

12. ECOLOGICAL INFORMATION

12.1 Eco-toxicity:	Low toxic to aquatic organisms.
12.2 Mobility:	The product is insoluble in water. Due to their negligible solubility in water and high molecular weight, they are expected to have a low BOD and will not cause oxygen depletion in aquatic systems.
12.3 Persistence and degradability:	The product is non-biodegradable in soil.
12.4 Bio accumulative potential:	They are expected to be non-biodegradable and unlikely to bioconcentrate.
12.5 Other adverse effects:	Unlikely to affect biological treatment processes.

13. DISPOSAL CONSIDERATIONS

Disposal of Polyester products does not pose any specific danger.
It is recommended that Polyester Flakes be recycled. (Recycling has commercial value too).
If recycling is not possible, Polyester waste flakes can be disposed of in a suitable refuse installation or incinerated subject to local regulations.

14. TRANSPORT INFORMATION

14.1 UN number:	Not applicable
14.2 Class/ Packing group:	Not restricted
14.3 Marine pollutant:	None
14.4 International Transport Regulations:	Not classified as dangerous for transport.
14.5 Road/ Rail (ADR/ RID):	Not restricted
14.6 Sea (IMDG):	Not restricted
14.7 Air (ICAO / IATA):	Not restricted

15. REGULATORY INFORMATION

TexPet Polyester products do not require hazard warning labels in accordance with EC directives.

Risk phrase(s): Not applicable

Safety phrase(s): Not applicable

16. OTHER INFORMATION

16.1 Recommended restrictions on use:

This safety data sheet is provided for the products and their applications as specified in Section 1. The safety data sheet is not written with the individual end-user in mind.

It is recommended that supplementary information be requested if an unusual application of these products is intended.

Consult the manufacturer if the product(s) is to be used for special applications (such as, but not limited to, the food, hygienic, medical or surgical sectors) or for new end-uses.

16.2 Further information:

TexPet complies with the following regulations:

- US-FDA regulation 21 CFR Section 177.1630
- European Directive 2011/10/EC
- FSMS standard BS EN ISO 22000:2005

16.3 Disclaimer:

This Safety Data Sheet and the health, safety and environmental information it contains are intended to provide a summary of our knowledge and guidance regarding use of the designated Product. Its contents are offered in good faith as accurate and complete as of the date specified below, but without guarantee. The data herein applies only to the Product sold by entities of the 'SM TK Chemical Corporation' and not to products sold by others. It relates only to the Product and does not relate to its use in combination with any other product or material or in any process.

Local laws and regulations and conditions of use and suitability of the product for particular uses are beyond the control of 'SM TK Chemical Corporation'; all risks of use, storage, handling, transportation and disposal of the Product are therefore assumed by the user and 'SM TK Chemical Corporation' expressly disclaims all warranties of every kind and nature, including warranties of merchantability and fitness for a particular purpose in respect to the use or suitability of the Product. 'SM TK Chemical Corporation' shall not be responsible for any damage or injury resulting from abnormal use of the Product, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the Product.

Appropriate warnings and safe handling procedures should be provided to all handlers and users. In the case of a user in the European Union, as per Article 34 of REACH Regulation (EC) No. 12372/2008 (CLP / GHS), user shall communicate to 'SM TK Chemical Corporation' any new information on hazardous properties of the Product and/or new information relevant to risk management measures for the identified uses.