

MATERIAL SAFETY DATA SHEET (MSDS)



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

1.1 Product identifier

Trade name: **PLAZGAL PETG**

Product name: Extruded Polyethylene Terephthalate Glycol-Modified (PETG) Solid Sheets

Material Name: PETG Copolyester

CAS number: 25640-14-6

1.2 Relevant identified uses of the product:

Indoor and outdoor applications such as covers, guards, electronics, medical braces, point-of-purchase and graphic displays.

1.3 Details of the supplier

Supplier: Plazit-Polygal Group

Address: Kibutz Gazit 1934000 Israel

Telephone: +972 4-662-8885

Email: plazit@plazit-polygal.com

Website: www.plazit-polygal.com

SECTION 2: Composition/Information on Ingredients

2.1 Chemical Name: Polyethylene Terephthalate Glycol-Modified polyester

2.2 Remarks:

Pigments and additives used to obtain specific properties are integrated in the polymer resin matter.

SECTION 3: Hazards identification

3.1 Product Overview:

Color: clear

Physical state: solid

Form: sheets

Odor: odourless

Not labelled as hazardous.

Under normal conditions of use, this product is not expected to create any unusual industrial hazards. Irritating gases/fumes may be given off during burning or thermal decomposition. Contact with hot material can cause thermal burns.

3.2 Potential Health Effects

There are no known human health effects aggravated by exposure to this product.

Primary types of exposure: Inhalation and skin contact.

General: The product in the form supplied, is not anticipated to produce significant adverse human health effects. Product dust may be irritating to eyes, skin and respiratory system.

3.3 Remarks:

Handle in accordance with good industrial hygiene and safety practice. Secondary operations, such as grinding, sanding or sawing of the sheets, can produce dust which may present a respiratory hazard.

SECTION 4: First-aid measures

In general handling the material will not cause accidents.

4.1 Description of first aid measures

Inhalation: Not likely due to physical form. If inhaled, remove to fresh air.

Skin: In case of contact, immediately flush skin with plenty of water. If molten polymer gets on the skin, cool rapidly with cold water. Do not peel solidified product off the skin. Obtain medical treatment for thermal burns. Remove material from clothing. Wash clothing before reuse.

Eyes: Remove contact lenses at once. Immediately flush eyes well with copious quantities of water or normal saline for at least 20-30 minutes. If irritation persists, seek medical attention.

Ingestion: Not likely in normal use. If a large amount is swallowed seek medical attention.

Burns: Burns by molten material must receive medical attention. Do not try to remove melted PETG from skin.

4.2 Main symptoms

Dust: Skin irritation, eye irritations and redness.

4.3 Indication of any immediate medical attention and special treatment needed: None

SECTION 5: Fire-fighting measures

Material can accumulate static charges which may cause an electrical spark (ignition source). Use proper bonding and/or grounding procedure.

5.1 Suitable Extinguishing Media:

Dry water fog, dry chemical, carbon dioxide (CO₂).

5.2 Extinguishing Media to Avoid

No information currently available.

5.3 Special Fire Fighting Procedures

Minimize dust generation and accumulation.

5.4 Special Protective Equipment & Precaution for Fire Fighters

Self-contained breathing apparatus and chemical protective clothing.

5.5 Specific Fire Hazards

Toxic and irritating gases/fumes may be given off during burning or thermal decomposition

SECTION 6: Accidental Release Measures

Spill or release: Clean by vacuuming or sweeping to prevent slipping or falls. If molten, allow material to cool and place into an appropriate container for disposal.

SECTION 7: Handling and Storage

7.1 Handling

Mechanical reprocessing can cause the formation of dust. To reduce the risk for dust explosion do not permit dust to accumulate. Protect against flame and intense heat.

7.2 Storage

This material is not hazardous under normal storage conditions, is physically stable and has no special storage requirements. Store in a dry place away from moisture, excessive heat and sources of combustion.

7.3 Waste Disposal

Dispose in accordance with applicable federal, state and local regulations.

7.4 Secondary Use / Reprocessing

When reprocessing material for secondary use, ground all handling equipment. Keep material and dust produced away from high heat and flame. Use good housekeeping practices when reprocessing material.

SECTION 8: Exposure Controls / Personal Protection

No specific exposure related hazards are known.

8.1 Exposure limits:

This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

8.2 Industrial Hygiene/Ventilation Measures

Local exhaust is preferred.

8.3 Respiratory protection

During processing, respiratory protection may not be necessary if adequate ventilation is provided. At high processing temperatures breathing protection may be required.

8.4 Hand protection

Wear heat-resistant gloves when handling molten material. Canvas or cotton gloves are recommended.

8.5 Eye protection

Safety glasses with side-shields are recommended.

8.6 Skin and body protection

No special skin protection requirements during normal handling and use.

General: Avoid contact with molten material on the skin, eyes and clothing. Handle product in accordance with good industrial hygiene and safety practices.

SECTION 9: Physical and Chemical Properties

Color: clear

Physical state: solid

Form: sheets

Odor: odourless

pH: no data

Density: (20°C) 1.27 kg/m³

Vapor pressure: Negligible at normal ambient temperatures.

Boiling point/boiling range: not applicable

Freezing point: not applicable

Flash Point: > 450°C

Melting Point: Melts above approximately 100°C, can be worked in the range 120-160°C

Auto-ignition Temperature: 471°C

Decomposition Temperature: 380°C approx..

Explosion Limits: Not available

Evaporation Rate: Not applicable

Specific Gravity: >1

% Volatile: N/A

Solubility in water: insoluble

SECTION 10: Stability and Reactivity

10.1 Stability:

The product is stable under normal handling and storage conditions.

10.2 Materials to avoid:

None under normal conditions of use.

10.3 Conditions / hazards to avoid:

Protect from excessive heat, keep away from sources of ignition and heat, avoid dust formation.

10.4 Hazardous / thermal decomposition products:

Thermal decomposition or combustion may emit vapors, carbon monoxide or carbon dioxide.

SECTION 11: Toxicological Information

This product should not be harmful under normal conditions of use.

11.1 Inhalation: Unlikely to be harmful by inhalation under ambient temperature. At high temperature, products of thermal decomposition can be irritating to the respiratory system.

11.2 Skin Contact: Not a skin sensitizer and is non-irritating to skin in ambient temperatures. At high temperature contact with the product can cause serious burns.

11.3 Ingestion: Unlikely to be harmful by ingestion in ambient temperatures.

11.4 Eye Contact: This product in the form of dust can be irritating to the eyes. At high temperature products of thermal decomposition can be irritating to the eyes.

11.5 Carcinogenicity: Non-carcinogenic

11.6 Toxicity Data:

Acute oral toxicity LD50 = > 3,200 mg/kg (rat, male, mouse)

Acute dermal toxicity LD50 = > 1,000 mg/kg (guinea pig)

Skin irritation = slightly irritating (guinea pig)

Eye irritation = slightly irritating (rabbit)

Eye irritation = non-irritating (guinea pig)

11.7 Chronic Effects on Humans:

No specific information is available but no hazard is suspected.

11.8 Other Toxic Effects on Humans:

In plastic sheet form, not considered dangerous to humans.

SECTION 12: Ecological Information

This product is a solid, inert product with low volatility, and is essentially insoluble in water.

12.1 Ecotoxicity:

This product should have low toxicity to aquatic and terrestrial organisms.

12.2 Mobility:

Due to the solid nature of this product, it should have low mobility in soil.

12.3 Persistence & Degradability:

This product is non-biodegradable.

12.4 Bioaccumulation:

The solid product has a low potential for bioaccumulation.

12.5 Effect in Sewage Plants:

Can be separated mechanically.

General: Not expected to present any significant ecological problems.

SECTION 13: Disposal Considerations:

13.1 Recycle and discharge:

The product is suitable for mechanical recycling. After appropriate treatment it can be remelted and processed into new molded articles. Mechanical recycling is possible if the material has been selectively retrieved and carefully segregated according to type.

13.2 Waste disposal:

Sweep or gather up material and place in a proper container for disposal or recovery.

General: Waste disposal should be in accordance with all federal, state and local environmental laws and regulations.

SECTION 14: Transport Information

14.1 US Department of Transportation (DOT) Hazard Class:

Not a DOT controlled material.

14.2 Other information: Not Dangerous Cargo.

SECTION 15: Regulatory Information

OHA Hazard Communication: Non-hazardous

Toxic Substances Control Act: Listed

International Agency for Research on Cancer (IARC): Not listed.

SARA Section 311/312: Not applicable

Canadian WHMIS: Not applicable

SECTION 16: Other Information

PLAZGAL is a registered trademark of Plazit-Polygal Group.

Additional information on this product may be obtained by calling your Plazit-Polygal Sales or Customer Service contact.

MSDS Prepared By: R&D Department, Plazit-Polygal Group

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