SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006, as amended by Regulation (EU) 2020/878

Laser+® (Polyethylene Terephthalate)

Version:	Revision Date:	Date of Last Issue:	Date of First Issue:
1.0	October 17, 2025	-	October 17, 2025

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 PRODUCT IDENTIFIER

Trade Name: Laser+® (Polyethylene Terephthalate)
(Includes Amorphous and other Resin Products)

Laser+® covers two different polymer substances:
Polyethylene Terephthalate (CAS #: 25038-59-9)
Polyethylene Terephthalate-Isophthalate Copolymer (CAS #: 24938-04-3)

Note: This SDS applies to a family of polyethylene terephthalate (PET)-based resin offerings under the Laser+® brand. Additional information for each grade is provided in the Technical Data Sheet (TDS).

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified Uses: For industrial use only. Not intended for consumer sale or use. Intended to be used in plastics manufacturing processes, or encapsulated in a matrix, or contained in the final product itself.
Uses Advised Against: See attached "Medical Caution Bulletin No. 1", at end of SDS for use restrictions.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Manufacturer:
Alpek Polyester UK Ltd
Davies Offices
Wilton International Site,
REDCAR, Cleveland
TS19 4XZ, UK

Telephone: +44 1642 451000
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Website: www.AlpekPolyester.co.uk

1.4 EMERGENCY TELEPHONE NUMBER

UK National Poisons Emergency: +44 870 600 6266
London – Emergency 24 Hour Telephone: +44 (0)20 7188 0100

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Not classified as hazardous according to Regulation (EC) No 1272/2008 (CLP).

2.2 LABEL ELEMENTS

Labelling in accordance with Regulation (EC) No 1272/2008 and 1907/2006:

- Hazard pictograms:

- Signal word: Warning
- Hazard statements: Harmful to the environment – avoid losses
- Precautionary statements: P273 – Avoid release to the environment.

2.3 OTHER HAZARDS

- COMBUSTIBLE DUST – WARNING! MAY FORM COMBUSTIBLE DUST CONCENTRATIONS IN AIR.
- CAUTION! MOLTEN MATERIAL WILL PRODUCE THERMAL BURNS. Molten polymer will adhere to skin and can cause severe burns.
- Eye contact with polymer particles may cause mechanical irritation with discomfort, tearing, or blurring of vision.
- This substance is not considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).
- This substance is not identified as having endocrine disrupting properties for human health or the environment according to the criteria in Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Material	CAS Number	EC Number	Reach Registration Number	Concentration (%)	Classification (CLP)
Polyethylene Terephthalate (PET)	25038-59-9	607-507-1	Polymer Exemption	>99	Not classified
OR					
PET-Isophthalate Copolymer	24938-04-3	607-459-1	Polymer Exemption	>99	Not classified
Residual additives, modifiers, colorants/impurities	-	-	Not Registered	<1	-

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INHALATION: No specific intervention is indicated, as the compound is not likely to be hazardous by inhalation. However, if exposed to gases, vapors or fumes from overheating or combustion, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician if necessary.

SKIN CONTACT: The compound is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable. If molten material gets on skin, cool rapidly with cold water. Do not attempt to remove material from skin. Obtain medical treatment for thermal burn.

EYE CONTACT: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If contact with molten material occurs, seek medical attention immediately. If contact with non-molten material occurs, consult physician.

INGESTION: Ingestion is not an expected route of exposure during normal use of the product. If ingested, consult a physician.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Contact with molten product may cause severe skin and/or eye burns.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Contact with molten product. Treat burns as thermal burns. The material will come off as healing occurs; therefore, immediate removal from the skin is not necessary.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA: Water, Foam, Carbon Dioxide (CO_2), or Dry Chemical.

UNSUITABLE EXTINGUISHING MEDIA: None known.

5.2 SPECIFIC HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

HAZARDOUS COMBUSTION PRODUCTS: Carbon dioxide and carbon monoxide.

5.3 ADVICE FOR FIRE-FIGHTERS

SPECIAL FIRE-FIGHTING PROCEDURES: Keep personnel removed and upwind of fire.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: Wear self-contained breathing apparatus. Wear full protective equipment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

The interior of molten masses may remain hot for some time because of the low heat conductivity of the polymer. Use care when handling/disposing of molten masses.

Review Section 5. FIRE FIGHTING MEASURES and Section 7.1 PRECAUTIONS FOR SAFE HANDLING before proceeding with clean-up.

Use appropriate Personal Protective Equipment during clean-up. Thermal protective equipment should be used when handling molten material (See Section 8. for further details).

6.2 ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Sweep up and recover, or mix material with moist absorbent and shovel into suitable chemical waste container.

Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used.

6.4 REFERENCE TO OTHER SECTIONS

For waste disposal, see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- Do not breathe gases, vapors or fumes that may be evolved during processing. Caution and suitable thermal eyes, face, and body personal protective equipment (PPE) must be used if handling hot/molten material. Contact with molten material can cause burns, so unprotected contact with molten material must be avoided.
- Keep spilled pellets swept up from walkways to minimize slipping hazards. Do not walk on spilled pellets.
- Avoid dust generation and prevent dust accumulations to minimize explosion hazard. Physical operations, such as grinding, can create dust and a potential dust explosion hazard. Under these conditions, follow National Fire Protection Association (NFPA) Codes and Standards for handling combustible dusts.

- See Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Keep container closed. Incompatible or can react with strong oxidizers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

EXPOSURE LIMITS:

	Polyethylene Terephthalate	Particles Not Otherwise Specified	Particulates Not Otherwise Regulated (PNOR)
PEL (OSHA):	None Established	-	15 mg/m³ Total dust 5 mg/m³ Respirable fraction
TLV (ACGIH):	None Established	3 mg/m³ Respirable particles 10 mg/m³ Inhalable particles	-

*All exposure limits presented are 8-hour time weighted average (TWA) limits.

NOTE: During melt phase processing of PET, a small amount of aldehydes are generated. The most well-known is acetaldehyde (CAS 75-07-0), also small amounts of formaldehyde (CAS 50-00-0) are formed. Processors are advised to check exposure to workers and apply current workplace exposure limits to limit exposures to aldehydes. A considered risk assessment will also be necessary when processing molten PET.

8.2 EXPOSURE CONTROLS

APPROPRIATE ENGINEERING CONTROLS:

- Use local ventilation to control gases, vapors and fumes from hot processing.
- Use static controls. Static charges can build up and ignite dust or solvent laden atmospheres. Design precautions into processes that can create dust, such as pneumatic conveying systems, grinding and other physical operations. There is the potential for a dust explosion hazard.
- Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

INDIVIDUAL PROTECTION MEASURES, SUCH AS PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face Protection: Wear coverall chemical splash goggles when the possibility exists for eye or face contact from airborne material. Wear a face shield when working with molten material.

Respiratory Protection: Respirators are not needed for normal use. Where airborne concentrations are expected to exceed exposure limits, a NIOSH approved respirator should be selected based on the form and concentration of the contaminant in air and in accordance with the OSHA Respiratory Protection Standard (29 CFR 1910.134).

Protective Clothing: If there is potential for contact with hot/molten material, wear heat-resistant impervious clothing and footwear. Special protective clothing is not needed for normal use. Gloves are recommended as good industrial practice.

Recommended Decontamination Facilities: Eyewash station, washing facilities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State Appearance:	Solid, clear to grayish white polymer
Size:	~3-4 mm pellet
Odor:	Odorless
Odor Threshold:	No data available
pH:	Not Applicable
Melting Point:	220 – 250 °C
Initial Boiling Point and Boiling Range:	No data available
Flash Point:	Not applicable, combustible solid
Evaporation Rate:	No data available
Flammability:	No data available
Explosive Properties:	Dust can be explosive under certain conditions
Flammability Limits (Upper/Lower):	No data available
Density:	~1.4 g/cm^3
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Specific Gravity:	>1
Solubility in Water:	Insoluble
Partition coefficient (n-octanol/water):	No data available
Auto-Ignition Temperature:	No data available
Decomposition Temperature:	330 °C
Viscosity:	No data available

9.2 OTHER INFORMATION

No additional information relevant to safe use of this material.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

None known.

10.2 CHEMICAL STABILITY

Stable at normal conditions. Polymerization will not occur.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None known.

10.4 CONDITIONS TO AVOID

Temperatures above 330 °C. Long resident times.

10.5 INCOMPATIBILE MATERIALS

Incompatible or can react with strong oxidizers.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition products caused by overheating polymer can include carbon monoxide, carbon dioxide, acetaldehyde and ethylene. Decomposition products (gases, vapors and/or fumes) may cause skin, eye or respiratory tract irritation, and other adverse health effects.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

- Acute toxicity: Not classified due to lack of data. Polyethylene Terephthalate: Oral Approximate Lethal Dose (ALD): >10,000 mg/kg in rats
- Skin corrosion/irritation: Not classified due to lack of data. Polyethylene terephthalate patch tests with humans resulted in no skin irritation or sensitization.

- Serious eye damage/eye irritation: Not classified due to lack of data. Eye contact with polymer dust may cause mechanical irritation with discomfort, tearing, or blurring of vision. Polyethylene terephthalate is a mild eye irritant.
- Respiratory or skin sensitization: Not classified due to lack of data.
- Germ cell mutagenicity: Not classified due to lack of data. Polyethylene terephthalate animal testing indicates no mutagenetic effects.
- Carcinogenicity: Not classified due to lack of data. Polyethylene terephthalate animal testing indicates no carcinogenic effects. None of the components present in this material at concentrations equal to or greater than 0.1% are listed by NTP, IARC, OSHA or ACGIH as a carcinogen.
- Reproductive toxicity: Not classified due to lack of data. Polyethylene terephthalate animal testing indicates no developmental or reproductive effects.
- STOT – single exposure: Not classified due to lack of data. Polyethylene terephthalate animal testing indicates no adverse effects from short exposures by inhalation and ingestion.
- STOT – repeated exposure: Not classified due to lack of data.
- Aspiration hazard: Not classified due to lack of data.

11.2 INFORMATION ON OTHER HAZARDS

- The substance is not considered to have endocrine disrupting properties as per the criteria set out in Commission Delegated Regulation (EU) 2017/2100 and Commission Regulation (EU) 2018/605
- There are no known health effects beyond those described in Section 11.1.
- Skin or eye contact with molten material will produce thermal burns.
- Decomposition products (gases, vapors and/or fumes) may cause skin, eye or respiratory tract irritation, and other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

No toxicity data is available. The product is insoluble in water.

12.2 PERSISTENCE AND DEGRADABILITY

PET is not categorized as persistent.

12.3 BIOACCUMLATIVE POTENTIAL

PET is not categorized as bioaccumulative.

12.4 MOBILITY IN SOIL

No data available.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

PET is not categorized as toxic (PBT). PET is not very persistent or very bioaccumulative (vPvB), as defined in REACH (Annex XIII) and is not included in the candidate list of substances of very high concern (SVHC).

12.6 ENDOCRINE DISRUPTING PROPERTIES

The substance is not considered to have endocrine disrupting properties for the environment as per the criteria set out in Commission Delegated Regulation (EU) 2017/2100 and Commission Regulation (EU) 2018/605.

12.7 OTHER ADVERSE EFFECTS

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Do not discharge directly into drains, air, soil, or the aquatic environment.
Disposal practices must comply with all relevant national, provincial, municipal, and local regulations.

SECTION 14: TRANSPORT INFORMATION

14.1 UN NUMBER OR ID NUMBER

Not assigned. PET is not classified as hazardous under transport regulations.

14.2 UN PROPER SHIPPING NAME

Not applicable.

14.3 TRANSPORT HAZARD CLASS(ES)

Not regulated.

14.4 PACKING GROUP

Not applicable.

14.5 ENVIRONMENTAL HAZARDS

Not applicable.

14.6 SPECIAL PRECAUTIONS FOR USER

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 MARITIME TRANSPORT IN ACCORDANCE WITH IMO INSTRUMENTS

Not applicable.

14.8 ADDITIONAL REGULATORY INFORMATION

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not classified as dangerous

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

- PET products are classified as nonhazardous under EU regulations (CLP, REACH).
- Polyethylene terephthalate (PET) is a polymer and is exempted from Registration according to the Article 2 (9) of Regulation (EC) No 1907/2006 REACH.

  EC No.: N/A

  REACH registration No.: N/A
- The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council".
- REACH – Candidate List of Substances of Very High Concern for Authorization (Article 59): Not applicable
- Regulation (EU) 2024/590 on substances that deplete the ozone layer: Not applicable
- Regulation (EU) 2019/1021 on persistent organic pollutants: Not applicable
- Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals: Not applicable

- REACH – List of substances subject to authorization (Annex XIV): Not applicable
- Volatile organic compounds – Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control): Not applicable
- Directive 2011/65/EU on restriction of the use of certain hazardous substances in electrical and electronic equipment: Not applicable
- Directive 94/62/EC on packaging and packaging waste: Not applicable

15.2 CHEMICAL SAFETY ASSESSMENT

No Chemical Safety Assessment has been carried out for this product by the supplier as this product is not classified as hazardous according with (EC) 1907/2006.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms:

ACGIH – American Conference of Governmental Industrial Hygienists; ALD – Approximate Lethal Dose; CAS – Chemical Abstracts Service; CEPA – Canadian Environmental Protection Act; CFR – Code of Federal Regulations (United States); CHEMTREC – Chemical Transportation Emergency Center; CLP – Classification Labelling Packaging Regulation; EC – European Community; EU – European Union; DSL – Domestic Substances List (Canada); EC-Number – European Community number; IARC – International Agency for Research on Cancer; IMO – International Maritime Organization; mg/m^3 – milligrams per cubic meter; NFPA – National Fire Protection Association; NTP – National Toxicology Program; OSHA – Occupational Safety and Health Administration (United States); PBT – Persistent, Bioaccumulative and Toxic substance; PEL – Permissible Exposure Limit; PET – Polyethylene Terephthalate; PNOR – Particulates Not Otherwise Regulated; PPE – Personal Protective Equipment; RCRA – Resource Conservation and Recovery Act (United States); REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; SARA – Superfund Amendments and Reauthorization Act (United States); SDS – Safety Data Sheet; STOT – Specific Target Organ Toxicity; TCLP – Toxicity Characteristic Leaching Procedure; TLV – Threshold Limit Value; TSCA – Toxic Substances Control Act (United States); TWA – Time Weighted Average; UN – United Nations; vPvB – Very Persistent and Very Bioaccumulative

Appropriate training:

Workers handling this product should be trained in: Proper handling and processing of polymeric materials; Use of personal protective equipment (PPE); Emergency response procedures (e.g. in case of fire or thermal degradation); and, Safe disposal practices according to local and EU regulations.

Data sources:

Regulation (EC) No 1907/2006 (REACH)
Regulation (EC) No 1272/2008 (CLP)
European Chemicals Agency (ECHA)
Scientific literature and databases

Disclaimer:

The information provided in this Safety Data Sheet is believed to be accurate and is based on the current knowledge and legislation applicable at the date of issue. It is the responsibility of the user to ensure the safe use of the product under their specific conditions and to comply with all applicable laws and regulations.

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. Laser+® is a registered trademark of Alpek Polyester USA, LLC.

SDS Revision Date: October 17, 2025
SDS Version: 1.0
First SDS for this product prepared in accordance with Regulation (EC) No. 1907/2006, as amended by Regulation (EU) 2020/878.

End of SDS

MEDICAL CAUTION BULLETIN NO.1

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End of Bulletin