



# SAFETY DATA SHEET

Date of issue: 15.10.2021 r

Version: 1.0/EN

[Has been drawn up in accordance with Regulation EC 1907/2006 (REACH) with later amendments]

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

### 1.1 Product identifier

Product name: PET-G PROGRAFEN GRAPHENE

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

**Relevant identified uses:** Copolyester-based graphene reinforced filament for use in 3D printing**Uses advised against:** No data available

### 1.3 Details of the supplier of the safety data sheet:

**Supplier:** Advanced Graphene Products S.A.**Street address:** Nowy Kisielin - Antoniego Wysockiego 4**Country/Postcode:** Poland, 66-002 Zielona Góra**Telephone number:** +48 68 328 20 10**E-mail:** office@agp-corp.com

### 1.4 Emergency telephone number: 112

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition:** Not classified

Classification according to Regulation (EC) No 1272/2008 (CLP) The product is not classified as hazardous. Based on section 1.3.4.1 of Annex I to CLP the product does not need to be labeled

### 2.2 Label elements

**Supplemental information on the label:**

Not applicable

**Hazard pictograms:**

The product does not need to be labeled.

**Signal word:**

The product does not need to be labeled.

**Hazard statements:**

The product does not need to be labeled.

**Precautionary statements:**

The product does not need to be labeled.

### 2.3 Other hazards

This mixture does not contain any substances that are assessed to be a PBT or a vPvB. This material can generate Particulates Not Otherwise Classifiable (PNOC). Avoid dust formation.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances:

Chemical name and CAS number	Weight [%]
Polyethylene terephthalate glycol copolymer CAS: 25038-91-9	>98%
Graphene CAS: 1034343-98-0	<1%



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## 3.2 Mixtures:

Not applicable

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### Eye Contact:

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention.

#### Inhalation:

Move to fresh air. Seek medical attention if you feel unwell or if exposure prolonged.

#### Skin Contact:

No adverse reactions are expected in case of skin contact. If irritation occurs wash the skin with a stream of water and get medical attention. In case of contact with hot polymer, immediately cool skin with cold water. Do not try to remove hot polymer from skin or contaminated clothing. Get medical attention.

#### Ingestion:

If the person is conscious, give water, do not induce vomiting. Get medical attention.

### 4.2. Most important symptoms and effects, both acute and delay

No information available.

### 4.3. Indication of any immediate medical attention and special treatment need

**Directions for the doctor:** Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media:** Foam, carbon dioxide and dry powder

**Unsuitable extinguishing media:** Do not use water jet as an extinguisher.

### 5.2 Special hazards arising from the substance or mixture

Burning produces obnoxious and toxic fumes: acetaldehyde, carbon monoxide and carbon dioxide.

### 5.3 Advice for firefighters

#### Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand and full protective gear.

#### Firefighting Instructions

Cool containers exposed to flames with water until well after the fire is out. If possible remove containers from the danger zone. Prevent from spreading or entering drains, ditches or rivers. Dispose of released and contained material in accordance with local regulations. Avoid dispersal of dust in the air.

## SECTION 6: Accidental release measures

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

Wear protective clothing as described in Section 8 of this safety data sheet. Remove from the danger area all persons not involved in the emergency. If necessary, order the evacuation. Avoid dust formation

### 6.2 Environmental precautions



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Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Local authorities should be advised if any exposure to the environment occurs.

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

Collect mechanically into the waste container. Avoid dust formation. Dispose of waste according to the applicable local and national regulation

### 6.4 Reference to other sections

See Section 8 for information on personal protective equipment.  
See Section 13 for disposal information.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use the product in accordance with its intended purpose. Keep away from heat, sparks and open flames. Avoid eye contamination and inhalation of dust. Keep away from food and drinks.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in original container in a dry, cool and well-ventilated place. Keep away from heat, sparks, sunlight, open flame and smoking. Keep away from oxidisers.

### 7.3 Specific end use(s)

No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Not applicable

### 8.2 Exposure controls

#### Appropriate engineering controls:

It is recommended to use the product in accordance with the principles of occupational health and safety. Provide adequate ventilation

#### Personal protective equipment:

##### Eye/face protection

Wear approved chemical safety glasses with side-shields

##### Skin protection

Hand protection: Use suitable protective gloves to avoid skin contact. In case of hot material: wear heat-resistant protective gloves able to withstand the temperature of the molten product.

Other: Wear appropriate clothing.

##### Respiratory protection:

Not required with adequate ventilation. When dust is present wear respirator with dust filter.

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance

Solid filament

Color

Transparent



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Shape	Circular filament
Odor	Delicate
Melting Point Range (°C)	200-250
Flammability	Non-flammable
Apparent density	≥1,27 g/cm <sup>3</sup>
Solubility in water	Insoluble

## 9.2. Other Informations

No data available

## SECTION 10: Stability and Reactivity

### 10.1 Reactivity

Not reactive under normal conditions of storage and use.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No further relevant information available.

### 10.4 Conditions to avoid

Avoid electrostatic discharge, high temperatures, direct sunlight, hot surfaces and open fire.

### 10.5 Incompatible materials

Acetic anhydride, acetone, aniline, benzene, chloroform, chromic acid, cyclohexanone, dimethylformamide, dioxane, ethyl acetate, phenol, tetrahydrofuran. Reaction with strong oxidizing agents as well as strong acids and caustics will decompose the polyester.

### 10.6 Hazardous decomposition products

Carbon monoxide, carbon dioxide, acetaldehyde.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity

No data available

#### Caustic/irritating effect on the skin

No data available

#### Serious damage to eyes/ irritating effect on eyes

No data available

#### Respiratory or skin sensitisation

No data available

#### Mutagenic effect on reproductive cells

No data available

#### Carcinogenic effect

No data available

#### Harmful impact on reproduction capacity

No data available

#### Toxic effect on target organs - one-time exposure

No data available

#### Toxic effect on target organs - repeated exposure



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No data available

**Aspiration hazard**

No data available

**Additional information**

The product should be handled with the caution usual with chemicals.

**SECTION 12: Ecological information****12.1 Toxicity**

Based on available data, the classification criteria are not met

**12.2 Persistence and degradability**

No further relevant information available.

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects**

No data available

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Do not allow to enter sewers and other water courses. Do not store in landfills. The material should be handed over as waste for utilization or recycling. Waste to be disposed of in accordance with local Waste Disposal Authority. Dispose of waste and residues in accordance with local authority requirements

**SECTION 14: Transport Information**

	<b>ADR/RID</b>	<b>ADN/ADNR</b>	<b>IMDG</b>	<b>IATA</b>
<b>14.1. UN number</b>	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es) label</b>	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>	No	No	No	No
<b>14.6. Special precautions for user</b>	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.7. Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable	Not applicable	Not applicable	Not applicable



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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH),  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.  
2014/955/EU: Commission Decision of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council Text with EEA relevance

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

## SECTION 16: Other information

### Additional Information

Mixture indicated only for professional use.

The above data are based on Advanced Graphene Products S.A. current knowledge, and are intended to describe our product with regard to the requirements of safety. Therefore, the data do not imply any guarantee of the technical properties of the product.

The Information is designed only as guidance for the safe handling, storage, processing and/or use of the Product. The Information is correct to the best of the Advanced Graphene Products S.A.'s knowledge and belief at the date of publication. The Advanced Graphene Products is not responsible for the improper use of the information contained in the card.