

[In accordance with the criteria of Regulation No 1907/2006 (REACH) as amended]

Section 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier
Filament Spectrum Industrial ecoPET 9021
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses: filament used in 3D printers.
Uses advised against: not determined.
- 1.3 Details of the supplier of the safety data sheet
Entity responsible: Spectrum Group Sp. z o.o.
Address: Parkowa 85, 05-806 Pęcice, Poland
Telephone: +48 608 109 008
E-mail address for a competent person responsible for sds: office@spectrumfilaments.com
- 1.4 Emergency telephone number
112

Section 2: Hazards identification

- 2.1 Classification of the substance or mixture
Skin Sens. 1 H317, Eye Irrit. 2 H319, Resp. Sens. 1 H334
May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- 2.2 Label elements

Hazard pictograms and signal words

DANGER

Dangerous components placed on the label

Contains: 1,2,4,5-benzenetetracarboxylic 1,2:4,5-dianhydride.

Hazard statements

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary statements

P261 Avoid breathing dust/fume/gas.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P284 In case of inadequate ventilation wear respiratory protection.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P501 Dispose of contents / container to properly labeled waste containers in accordance with national regulations.

2.3 Other hazards

The substances contained in the product do not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation. The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

Section 3: Composition/information on ingredients

3.2 Mixtures

CAS number: 89-32-7 EC number: 201-898-9 Index number: 607-098-00-X Registration number: 01-2120755188-46-XXXX	<u>1,2,4,5-benzenetetracarboxylic 1,2:4,5-dianhydride</u> Skin Sens. 1 H317, Eye Dam. 1 H318, Resp. Sens. 1 H334	≥ 1 - < 3 %
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The product also contains technical carbon black [CAS 1333-86-4], which is not classified as hazardous to human life and health.

Full text of each relevant H phrase is given in section 16 of sds.

Section 4: First aid measures

4.1 Description of first aid measures

Skin contact: wash the contaminated skin thoroughly with plenty of soap and water. Do not use solvents or thinners. Take off all contaminated clothing, If disturbing symptoms appear, consult a doctor. Do not peel solidified product from the skin. In case of burns, use cold water to relieve pain.

Eye contact: remove contact lenses. Wash the contaminated eyes with plenty of water for at least 15 minutes. Avoid powerful water stream – risk of cornea damage. If disturbing symptoms appear, consult an ophthalmologist.

Ingestion: do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. If disturbing symptoms appear, consult a doctor, show the container or label.

Inhalation: if disturbing symptoms occur, consult a doctor. Remove to fresh air, keep the victim warm and calm.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact: possible redness, dryness, degreasing, other allergic reaction, contact with hot material may cause thermal burns.

Eye contact: possible redness, tearing, burning sensation, irritation.

Ingestion: possible stomach pain, nausea.

Inhalation: vapors may cause headache, dizziness, respiratory tract irritation, coughing, breathing difficulties, asthmatic symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

Physician makes a decision regarding further medical treatment after thoroughly examination of the injured. Symptomatic treatment.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: CO₂, extinguishing powder, alcohol resistant foam. Adapt the extinguishing media to the surrounding materials.

Unsuitable extinguishing media: water jet – risk of the propagation of the flame.

5.2 Special hazards arising from the substance or mixture

During the fire, the product may produce harmful fumes and gases of carbon oxides, hydrocarbons, aldehydes, acids and other unidentified products of thermal decomposition. Do not inhale combustion products, they can be dangerous for human health.

5.3 Advice for firefighters

Personal protection typical in case of fire. Do not stay in the fire zone without self-contained breathing apparatus and protective clothing resistant to chemicals. In case of fire, cool endangered containers with water spray from a safe distance. Collect used extinguishing media.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Limit the access for the outsiders into the breakdown area, until the suitable cleaning operations are completed. Ensure that effects of the breakdown are removed by a trained personnel only. In case of large releases, isolate the exposed area. Use personal protective equipment. Avoid eye and skin contamination. Do not breathe product's dusts. Ensure adequate ventilation. Danger - risk of slipping, the product may form slippery surfaces.

6.2 Environmental precautions

In case of release of large amounts of the product, it is necessary to take appropriate steps to prevent it from spreading into the environment. Notify relevant emergency services.

6.3 Methods and material for containment and cleaning up

Collect mechanically, avoiding dusting. Collect the collected material for reuse or treat as waste. Clean and ventilate the contaminated place.

6.4 Reference to other sections

Personal protective equipment – see section 8. Appropriate conduct with waste product – see section 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good occupational hygiene and safety practices. Before break and after work wash hands carefully. Ensure adequate ventilation general or a local. Avoid contact with eyes and skin. Do not breathe product's dusts. Use personal protective equipment. People, who suffer from skin sensitization, asthma, allergies, chronic or recurrent respiratory diseases should not be involved in any processing of this product.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original, closed containers in a cool and well-ventilated place. Keep away from strong oxidants, acids and bases. Keep away from food, drink and animal feed. Protect against water and moisture.

7.3 Specific end use(s)

No information about other uses than those mentioned in subsection 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Product does not contain any components with occupational exposure limit values at working place. Please check any national occupational exposure limit values in your country.

Legal Basis: Commission Directive 2006/15/EC, 2000/39/EC, 2009/161/EC, 2017/164/EU, 2019/1831/EU.

8.2 Exposure controls

Appropriate engineering controls

Use the product in accordance with good occupational hygiene and safety practices. Do not eat, drink or smoke when using the product. Before break and after work wash hands carefully. Ensure adequate ventilation in a workplace.

Individual protection measures, such as personal protective equipment

The necessity to use and selection of appropriate personal protective equipment should take into account the type of risk created by the product, conditions at the workplace and the manner of handling the product. The personal protective equipment used must meet the requirements of Regulation (EU) 2016/425 and the relevant standards.

Hand and body protection

Use protective gloves (EN 374). The material for the gloves should be selected individually at the workplace.

The material that the gloves are made of must be impenetrable and resistant to the product's effects. The selection of material must be performed with consideration of breakthrough time, penetration speed and degradation. Moreover, the selection of proper gloves depends not only on the material, but also on other quality features and changes depending on the manufacturer. The producer should provide detailed information regarding the exact breakthrough time. This information should be followed

Eyes protection

Use safety glasses with side shields (EN 166).

Respiratory protection

Use respiratory protection with a dust mask.

Thermal hazards

If contact with the hot product is expected, use heat-resistant gloves in accordance with EN 407 standard.

Environmental exposure controls

Avoid release to the environment, do not enter to the sewage system. Any emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid
Colour:	black
Odour:	characteristic
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	non-flammable product
Lower and upper explosion limit:	not applicable
Flash point:	not determined
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH:	not determined
Kinematic viscosity:	not applicable
Solubility:	not determined
Partition coefficient n-octanol/water (log value):	not applicable
Vapour pressure:	not determined
Density and/or relative density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

- 9.2 Other information
No additional test results

Section 10: Stability and reactivity

- 10.1 Reactivity
Product is reactive. See also subsections 10.3-10.5.
- 10.2 Chemical stability
The product is stable under normal conditions of use and storage.
- 10.3 Possibility of hazardous reactions
Crushed particles of the product form an explosive mixture with air. During combustion harmful and toxic fumes are formed.
- 10.4 Conditions to avoid
Avoid direct sunlight. Protect against water and moisture. Keep away from heat and ignition sources.
- 10.5 Incompatible materials
Strong oxidizing agents, combustible materials.
- 10.6 Hazardous decomposition products
Not known.

Section 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- Acute toxicity
Based on available data, the classification criteria are not met.
- Skin corrosion/irritation
Based on available data, the classification criteria are not met.
- Serious eye damage/irritation
Causes serious eye irritation.
- Respiratory or skin sensitisation
May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
- Germ cell mutagenicity
Based on available data, the classification criteria are not met.
- Carcinogenicity
Based on available data, the classification criteria are not met.
- Reproductive toxicity
Based on available data, the classification criteria are not met.
- STOT-single exposure
Based on available data, the classification criteria are not met.
- STOT-repeated exposure
Based on available data, the classification criteria are not met.
- Aspiration hazard
Based on available data, the classification criteria are not met.
- Information on likely routes of exposure
Routes of exposure: skin contact, eye contact, inhalation. See subsection 4.2 for more information on the effects from each possible route of exposure.

Symptoms related to the physical, chemical and toxicological characteristics

Hot product vapours may cause eye irritation. Contact with the hot product may cause skin burns.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No data.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

Other information

No data.

Section 12: Ecological information

12.1 Toxicity

Product is not classified as hazardous for the environment.

12.2 Persistence and degradability

No detailed data.

12.3 Bioaccumulative potential

No detailed data.

12.4 Mobility in soil

Mobility of components of the mixture depends on the hydrophilic and hydrophobic properties and biotic and abiotic conditions of soil, including its structure, climatic conditions, seasons and soil organisms.

12.5 Results of PBT and vPvB assessment

Components of the product do not meet criteria for PBT or vPvB.

12.6 Endocrine disrupting properties

The product does not contain substances included in the list established in accordance with Article 59 (1) for having endocrine disrupting properties, or substances identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 (3) or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0.1 % by weight.

12.7 Other adverse effects

The product does not affect global warming and ozone layer depletion.

Section 13: Disposal considerations

13.1 Waste treatment methods

Disposal methods for the product: disposal in accordance with the legislation in force. Do not dispose of with municipal waste. Do not empty into drains. Store the remains in original containers. If possible, recycling is preferred. Waste code should be given in the place of waste formation.

Disposal methods for used packing: reuse/recycle/liquidate empty containers in accordance with the legislation in force. Only containers completely empty can be recycled.

Legal basis: Directive 2008/98/EC as amended, 94/62/EC as amended.



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Section 14: Transport information

- 14.1 UN number or ID number
Not applicable - the product is not classified as dangerous during transport.
- 14.2 UN proper shipping name
Not applicable.
- 14.3 Transport hazard class(es)
Not applicable.
- 14.4 Packing group
Not applicable.
- 14.5 Environmental hazards
Not applicable.
- 14.6 Special precautions for user
Not applicable.
- 14.7 Maritime transport in bulk according to IMO instruments
Not applicable.

Section 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
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), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.
Commission Regulation (EU) No 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation 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 as amended.
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste as amended.
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives as amended.
Regulation (EU) No 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC.
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.
Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.
Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
Commission Directive 2017/164/EU of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU.
Commission Directive 2019/1831/EU of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
- 15.2 Chemical safety assessment
It is not necessary to carry out a chemical safety assessment for the mixture.



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Section 16: Other information

Full text of indicated H phrases mentioned in section 3

H317	May cause an allergic skin reaction.
H318	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Clarification of aberrations and acronyms

Eye Dam. 1	Eye damage cat. 1
Eye Irrit. 2	Eye irritation cat. 2
Resp. Sens. 1	Respiratory sensitisation cat. 1
Skin Sens. 1	Skin sensitization cat. 1
PBT	Persistent, Bioaccumulative and Toxic substance
vPvB	very Persistent, very Bioaccumulative substance

Trainings

Before commencing working with the product, the user should learn the Health & Safety regulations, regarding handling chemicals, and in particular, undergo a proper workplace training.

Key literature references and data sources

This SDS was prepared on the basis of sheet supplied by supplier, literature data, online databases as well as our knowledge and experience, taking into account current legislation.

Methods of evaluating information which was used for the purpose of classification of the mixture

Classification was based on physico-chemical tests, data on hazardous components content and on calculation method under the guidance of Regulation 1272/2008/EC (CLP) as amended.

Other data

Date of update:	03.10.2022
Version:	1.0/EN

The information above is based on a current available data concerning the product, but also on the experience and knowledge in this field of the producer. They are neither a quality description of the product nor a guarantee of particular features. They are to be treated as aid to safety in transport, storage and usage of the product. That does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field.