



Product: Xyon™  
Safety data sheet according to Regulation (EC) No. 1907/2006

Version: Xyon-EN-v1  
Date / Revised: 06.25.2024

## 1. Identification of the substance/preparation and company

### 1.1 Product identification

Xyon

### 1.2 Recommended Use

3D filament, not for human consumption

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

Nexa3D, Inc.  
1923 Eastman Ave. STE 200  
Ventura, CA 93003  
USA

Telephone: 1-805-465-9001

E-mail address: info@nexa3d.com

### 1.4 Emergency telephone number

ChemTel 1-800-255-3924 (USA), 1-813-248-0585 (international), Contract MIS3892732

## 2. Hazards Identifications

**Hazard statement:** Molten polymer will cause thermal burns. Please take all precautions necessary to avoid burns by the molten polymer.

**Precautionary statement:** None

**Signal word:** None

**Potential health effects:** See section 11 for more information

**Environmental precautions:** See section 12 for more information

**Other hazards:** If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. See sections 7 and 8 for additional information.

## 3. Composition/Information on Ingredients

Ingredients of the mixture

Substance name	CAS No.	WT%
2,4,8,10-Tetraoxa-3,9-diphosphaspiro[5.5]undecane, 3,9-bis[2,4-bis(1,1-dimethylethyl)phenoxy]->=0.3 -	26741-53-7	<1%
Polyamide copolymer	N/A	>88%
Chopped Carbon Fiber	N/A	<10%
Carbon Black	1333-86-4	<1%

All ingredients in quantities > 1.0% (0.1% for carcinogens) that are potentially hazardous per OSHA definitions.

## 4. First Aid Measures

The following first aid recommendations are based on an assumption that appropriate personal and industrial best practices are followed. Precautions should be taken to avoid inhalation and eye contact

### 4.1 Following inhalation:

Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately

### 4.2 Following skin contact:

: Adverse effects are not expected from accidental skin contact following occupational exposure. After contact with skin, wash with soap and water. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer. DO NOT attempt to remove hot polymer from skin or contaminated clothing as skin may be easily damaged. Call a physician immediately.

### 4.3 Following eye contact:

In case of contact may cause irritation, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician immediately if eyes are hurt.

### 4.4 Following ingestion:

Do not induce vomiting. Drink water as a precaution. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

## 5. Fire-Fighting Measures

### 5.1 Hazardous Characteristics:

No hazardous characteristics.

### 5.2 Extinguishing Media:

Dry powder, Chemical foam, Carbon dioxide, water mist.

### 5.3 Firefighting Procedures:

As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. Take all precautions to avoid mixing with combustibles.

### 5.4 Special Hazards Arising from Substance

Carbon monoxide, organic volatile Hazards during firefighting: carbon monoxide, carbon dioxide, and polycyclic aromatic hydrocarbons can be emitted at  $> 250$  °C. Under special fire conditions traces of other toxic substances are possible. Formation of further decomposition and oxidation products depends upon the fire conditions.

### 5.5 Further Information

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations



## 6. Accidental Release Measures

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

No special precautions necessary

### 6.2 Environmental precautions:

No special precautions necessary

### 6.3 Cleaning method:

Spills should be contained and placed in suitable containers for disposal

## 7. Safe Handling and Storage

### 7.1 Handling Notes:

Use personal protective equipment. Avoid contact with skin and eyes. Low hazard for usual industrial or commercial handling. Workers should be protected from the possibility of contact with molten material during fabrication. Avoid dust formation. If small particles are generated during further processing, handling, or by other means, combustible dust concentrations in air may form. Protect from moisture and impurities. Keep the floor clear. Provide suitable exhaust for ventilation during the drying process and in the area surrounding the melt outlet and processing machines.

### 7.2 Storage Notes:

Stored in cool and dry closed container.

## 8. Exposure Controls/Personal Protection


### 8.1 Occupational Exposure Limit:

No relevant data

### 8.2 Engineering Control:

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapor below the OEL, suitable respiratory protection must be worn. Ensure that eyewash stations and safety showers are proximal to the work-station location.

### 8.3 Personal Protection:

General Requirement	
Respiratory	If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Eyes	Wear protective goggle (Conform to EC EN 166 or US-NIOSH).
Hands	Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.

### 8.4 Sanitary Measure

Wear protective clothing to prevent contact during mechanical processing and or hot melt conditions. Avoid inhalation of dust. When using, do not eat, drink, or smoke. Hands and/or face should be washed before breaks and at the end of the

shift. At the end of the shift the skin should be cleaned, and skin care agents applied

### 8.5 Special Hazard

Workers should be protected from the possibility of contact with molten material during fabrication.

## 9. Physical and Chemical Properties

<b>Physical State:</b>	Solid filament
<b>Color:</b>	Black
<b>Odor:</b>	Faint odor
<b>Odor Threshold:</b>	Not applicable
<b>pH:</b>	Not applicable
<b>Boiling Point / Boiling Range:</b>	Not available
<b>Melting Point / Melting Range:</b>	Approx. 190°C
<b>Sublimation Point:</b>	Not applicable
<b>Flash Point:</b>	> 400°C
<b>Flammability:</b>	Not self-igniting
<b>Flammability of Aerosol:</b>	Not applicable
<b>Products:</b>	Form flammable aerosols
<b>Lower Explosion Limit:</b>	For solids not relevant for classification and labeling
<b>Upper Explosion Limit:</b>	For solids not relevant for classification and labeling
<b>Autoignition temperature:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable
<b>Density:</b>	1.05 - 1.60 g/cm <sup>3</sup> (20 °C)
<b>Relative Density:</b>	No data available
<b>Bulk Density:</b>	500 - 800 kg/m <sup>3</sup>
<b>Vapor Density:</b>	Not applicable
<b>Partitioning coefficient n -octanol/water (log Pow):</b>	Not applicable
<b>Self-Ignition Temperature:</b>	Not self-igniting
<b>Thermal Decomposition:</b>	> 320°C
<b>Water Solubility:</b>	Insoluble

Evaporation rate:	Not applicable
Viscosity, dynamic:	Not applicable
Viscosity, kinematic:	Not applicable
Solubility (quantitative):	No applicable information available
Solubility (qualitative):	No applicable information available

## 10. Stability and Reactivity

### 10.1 Stability:

Stable under recommended storage and handling conditions (See section 7).

### 10.2 Reactivity:

None expected under conditions of normal use.

### 10.3 Possibility of hazardous reactions:

No hazardous reactions known

### 10.4 Contact conditions for avoiding:

Temperatures > 320°C

### 10.5 Hazardous decomposition products:

Carbon monoxide, carbon dioxide, hydrogen cyanide, caprolactam, ammonium hydroxide, nitriles

## 11. Toxicological Information

**Inhalation:** Not inhalable due to the properties of the product

**Irritation:** Thermal decomposition of the product can irritate eyes, skin, and respiratory tract

**Eyes:** Molten material will cause thermal burns

**Skin:** Molten material will cause thermal burns

**Other:** No specific target organ toxicity (STOT)

No sensitizing effect

No aspiration hazard

No known chronic effects

Chemical structure does not suggest a specific alert to genetic toxicity

Chemical structure does not suggest a specific alert to carcinogenicity

Chemical structure does not suggest a specific alert to reproductive toxicity

Chemical structure does not suggest a specific alert to teratogenicity

## 12. Ecological Information

### 12.1 Toxicity:

No data available.

### 12.2 Persistence and degradability:

Inert and non-degradable

### 12.3 Bioaccumulative potential:

No data available.

## 12.4 Mobility in soil

No data available.

## 13. Disposal Considerations

### 13.1 Handling method for waste:

In accordance with local, state and national regulations. Should not be released into the environment. Do not contaminate ponds, waterways or ditches with chemical or used container. Contact manufacturer.

### 13.2 Handling method for uncleaned packaging

Empty remaining contents. Do not re-use empty containers. Empty containers should be transported/delivered using a registered waste carrier to local recyclers for disposal.

THE COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION

## 14. Transport Information

No	UN	IMDG	IATA
UN No.	Not regulated	Not regulated	Not regulated
UN proper shipping name	-	-	-
Hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No	No	No
Marine Pollutant	No	No	No

**Land transport(ADG):** Not regulated for transport of dangerous goods.

**Air transport(ICAO -IATA/DGR):** Not regulated for transport of dangerous goods.

**Sea transport(IMDG-Code/GGVSee):**Not regulated for transport of dangerous goods.

Transport in bulk according to Annex II of MARPOL and the IBC code.

Transport within user's premises: always transport in closed containers that dry, sealed, and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## 15. Regulatory Information

Regulatory requirements are subject to change and may differ between locations. It is the User's responsibility to ensure that all activities comply with all federal, state or provincial and locals laws and regulations. The following specific information is made for the purpose of complying with numerous national, federal, state or provincial, and local laws and regulations. See other sections for health and safety information.

### U.S. REGULATIONS

**Sara 313 title III:** Not Listed

**TSCA Inventory List:** Listed

**EPCRA 311/312:** Not hazardous

**NFPA Hazard Codes:** Health: 1 Fire: 1 Reactivity: 0

**HMIS III Rating:** Health: 1 Flammability: 1 Physical hazard: 0

**INTERNATIONAL REGULATIONS** Contact Nexa3D Inc. for more information.

Not meant to be all inclusive - selective regulations represented.

## 16. Other Information

Thank you for your interest in products from Nexa3D. We are providing this material safety data sheet [MSDS] as a courtesy to your request. We certainly expect you to read the entire MSDS and call us with any required points of clarification. Please follow all precautions identified in this document.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the result of its use, this information is furnished upon condition that the person receiving it shall make their own determination of the suitability of the material for their particular purpose.

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