



MSDS REPORT

Report No.: UTLR24037762-5
Report Date: Mar.08,2024

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Applicant : SHENZHEN ELEGOO TECHNOLOGY CO., LTD.
Address : 101, NO. 30, DAHE INDUSTRIAL ZONE, GUANCHENG
COMMUNITY, GUANHU STREET, LONGHUA DISTRICT,
SHENZHEN, CHINA

Sample Information : **Below sample and sample information are provided by client**
Sample Name : 3D printer filament Rapid PETG
Brand: : ELEGOO
Model No. : 3DF-PHExx(PHE represents Rapid PETG, xx represents any suffix)
Manufacturer : SHENZHEN ELEGOO TECHNOLOGY CO., LTD.
Manufacturer : 101, NO. 30, DAHE INDUSTRIAL ZONE, GUANCHENG
address : COMMUNITY, GUANHU STREET, LONGHUA DISTRICT,
SHENZHEN, CHINA
Transport Fashion : By air, By road, By sea,By train
Prepared Date : 2024-03-05 to 2024-03-08

RESULT SUMMARY:

TEST REQUESTED	CONCLUSION(S)
Material Safety Data Sheet(MSDS)	See next pages



Authorized Signatory
Title: Lab Manager

For and on behalf of

Dongguan Universal Testing Technology Co., Ltd.

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Section 1 - Chemical Product and Company Identification

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Model No. : 3DF-PHExx(PHE represents Rapid PETG, xx represents any suffix)
Manufacturer : SHENZHEN ELEGOO TECHNOLOGY CO., LTD.
Manufacturer address : 101, NO. 30, DAHE INDUSTRIAL ZONE, GUANCHENG COMMUNITY, GUANHU STREET, LONGHUA DISTRICT, SHENZHEN, CHINA
Contact person : Miss Hong
24 hours emergency phone No. : +86 0755 21005141

Section 2 - Hazards Identification

2.1 Classification of the substance or mixture

In accordance with Regulation (EC) No. 1272/2008, the product isn't classified according to CLP regulation.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 Not applicable

Hazard pictograms Not applicable

Signal word Not applicable

Hazard-determining components of labeling Not applicable

2.3 Other hazards

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Section 3 –Composition/Information on Ingredients

Admixture

Composition:

Chemical Name	CAS No.	EC No.	Composition (in% by weight)
Terephthalic acid	100-21-0	202-830-0	≥98
Ethylene glycol	107-21-1	203-473-3	
1,4-Cyclohexanedimethanol	105-08-8	203-268-9	
Assistant agent	-	-	≤2

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Section 4 - First Aid Measures

General advice: Consult a physician. Show this safety data to the doctor in attendance. Move out of dangerous area.

Skin touch: Remove contaminated clothes and rinse the skin with plenty of water and soap. Cool water should be used. Get medical aid if necessary .

Eyes touch: Lifting the upper and lower eyelids, flush the eyes with plenty of water for at least 15 minutes. Cool water should be used. Get medical aid if necessary . Continue rinsing eyes during transport to hospital.

Inhalation: Remove from exposure and move to fresh air immediately. Keep the respiratory tract smooth. Use oxygen if available. Get medical aid.

Ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse out mouth. Drink sufficient hot water. Get medical aid.

Section 5 - Fire Fighting Measures Danger

Fire-Fighting method & media: use extinguish ant such as dry sand, chemical dry powder, alcohol-resistant foam to put out the fire.

Special protection equipment for firefighters: Firemen should wear proper protective equipment and positive pressure self-contained breathing apparatus.

Special hazards arising from the substance or mixture: Carbon oxides.

Special remarks on Fire Hazards: No further relevant information available.

Section 6 –Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Section 7 - Handling and Storage

Handling: Avoid contact with eyes. Avoid inhalation of vapour or mist. Take measures to prevent the build up of electrostatic charge.Supply with sufficient partial air exhaust. It is advised that the staff wear respirator, wear work clothes, and wear gloves. Keep away from sources of ignition-No smoking. Use explosion-proof type ventilation system and device. Avoid contacting with oxidizer and strong acid. Equip with relevant types and quantities of extinguishment instruments and device for divulgence handling. Empty the container which may include harmful material.

Storage: Keep container tightly closed in a dry and well-ventilated place.Store in cool place. Hygroscopic. Away from fire, heat source,direct sunlight. With the oxidant and acid stored separately, avoid mixing reservoir. Equipped with the appropriate variety and quantity of fire equipment. Storage

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areas should be equipped with emergency treatment equipment for leakage and suitable housing materials.

Section 8 - Exposure Controls, Personal Protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS No.	Value	Control parameters	Basis
1,4-benzenedicarboxylic acid	100-21-0	TWA	10 mg/m ³	USA. ACGIH Threshold LimitValues (TLV)

8.2 Exposure controls

Personal protective equipment

Respiratory Protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination(US) or type ABEK(EN 14387) respirator cartridges as a backup to engineering controls.

Eyes Protection: Safety glasses with side-shields conforming to EN 166.

Body Protection: Wear impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Environmental exposure controls: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Control measures must be made in accordance with community environmental protection legislation.

Other Protections: No smoking, dining and drinking water in the workplace. Keep good habit of hygiene. Change clothes, wash your hands after work.

Section 9 - Physical and Chemical Properties(information were provided by client)

Appearance: solid

Color: black

Odour: odorless

Density: no data

Melting Point: no data

Solubility in water: no data

Solubility: no data

Section 10 - Stability and Reactivity

Stability: No data.

Distribution of Ban: No data.

Conditions to Avoid: No data..

Hazardous Decomposition Products: No dangerous decomposition products known.

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Section 11 - Toxicological Information

Acute toxicity

1,4-benzenedicarboxylic acid

LD50 Oral - Rat - male and female - > 15,380 mg/kg(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 2 h - > 2.02 mg/l - dust/mist(OECD Test Guideline 403)

Symptoms: Shortness of breath, Cough, mucosal irritations

LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg(OECD Test Guideline 402)

1,4-Cyclohexanedimethanol

LD50 Oral - Rat - male and female - > 2.000 mg/kg(OECD Test Guideline 423)Inhalation: No data availableDermal: No data available

Ethylene glycol

LD50 Oral - Rat - male and female - 28,300 mg/kg(OECD Test Guideline 401)

LC0 Inhalation - Rat - male and female - 4 h - > 5.33 mg/l - dust/mist(OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - 40,000 mg/kg Remarks: (ECHA)

Skin corrosion/irritation

1,4-benzenedicarboxylic acid

Skin - Rabbit

Result: No skin irritation - 4 h(OECD Test Guideline 404)

Ethylene glycol

Skin - Rabbit Result: slight irritation - 4 h(OECD Test Guideline 404)

Serious eye damage/eye irritation

1,4-benzenedicarboxylic acid

Eyes - Rabbit

Result: No eye irritation(OECD Test Guideline 405)

Ethylene glycol

Eyes - Rabbit Result: slight irritation - 24 h(OECD Test Guideline 405)

Respiratory or skin sensitization

1,4-benzenedicarboxylic acid

Buehler Test - Guinea pig

Result: negative(OECD Test Guideline 406)

1,4-Cyclohexanedimethanol

Skin - RabbitResult: No skin irritation(OECD Test Guideline 404)

Ethylene glycol

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Maximization Test - Guinea pig
Result: negative(OECD Test Guideline 406)
Local lymph node assay (LLNA) - Mouse
Result: negative(OECD Test Guideline 429)

Germ cell mutagenicity

1,4-benzenedicarboxylic acid

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: positive

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal

Method: OECD Test Guideline 474

Result: negative

Test Type: unscheduled DNA synthesis assay

Species: Rat

Cell type: Liver cells

Application Route: Oral

Method: OECD Test Guideline 486

Result: negative

1,4-Cyclohexanedimethanol

Test Type: in vitro test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

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Test Type: in vivo assay
Species: Rat
Application Route: Gavage
Result: negative

Ethylene glycol
Test Type: Ames test
Test system: Salmonella typhimurium
Result: negative
Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Result: negative
Test Type: Mutagenicity (mammal cell test): chromosome aberration.
Test system: Chinese hamster ovary cells
Result: negative
Method: OECD Test Guideline 474
Species: Rat - male and female
Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After uptake of large quantities:

Changes in the blood count

change in weight

Possible effects to: Kidney, Liver, Cardiac

Further hazardous properties cannot be excluded but unlikely when the product is handled appropriately. Handle in accordance with good industrial hygiene and safety practice.

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Section 12 - Ecological Information

12.1 Toxicity

1,4-benzenedicarboxylic acid

Toxicity to fish static test

LC50 - *Leuciscus idus melanotus* - > 961 mg/l - 96 h(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates static test

EC50 - *Daphnia magna* (Water flea) - > 967 mg/l - 48 h(OECD Test Guideline 202)

Toxicity to algae static test

ErC50 - *Desmodesmus subspicatus* (green algae) - > 668mg/l - 96 h(OECD Test Guideline 201)

Toxicity to bacteria static test

EC50 - activated sludge - 1,393 mg/l - 3 h(OECD Test Guideline 209)

1,4-Cyclohexanedimethanol

Toxicity to fish static test

LC50 - *Pimephales promelas* (fathead minnow) - > 125,3mg/l - 96 h(OECD Test Guideline 203)

Toxicity to algae static test

EC50 - *Selenastrum capricornutum* (green algae) - >122,9 mg/l - 72 h(OECD Test Guideline 201)

12.2 Persistence and degradability

1,4-benzenedicarboxylic acid

Biodegradability

aerobic - Exposure time 14 d

Result: 85.2 % - Readily biodegradable.(OECD Test Guideline 301B)

1,4-Cyclohexanedimethanol

Biodegradability

aerobic - Exposure time 28 d

Result: 99,2 % - Readily biodegradable.(OECD Test Guideline 301A)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/notconducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Discharge into the environment must be avoided.

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Section 13 - Disposal Considerations

Waste disposal method: dispose according to local regulations.

Precautions for abandonment: no special precautions.

Section 14 - Transport Information

Number of dangerous goods: No data.

UN Number: No data.

Packaging Mark: No data.

Packaging Method: No data.

Transport Attentions: Examine whether the package of the containers are integrate and tighten closed before transport. No divulgence, no collapse, no precipitation or no damage during the course of transportation. Don't put the goods together with oxidizer, acid and so on. The transport vehicle and ship must be cleaned and sterilized otherwise it is not allowed to assemble articles. During transport, the vehicle should prevent exposure, rain and high temperature. For stopovers, the vehicle should be away from fire and heat sources. Don't use device and tools which can easily produce spark for loading. When transported by sea, the assemble place should keep away from bedroom and kitchen, and isolated from the engine room, power and fire source.

Under the condition of Road Transportation, the driver should drive in accordance with regulated route, don't stop over in the residential area and congested area. No slipping up in rail road.

According to the IMDG Code(inc Amdt 41-22) 2022 Edition, The sample is not regulated for transport of dangerous goods.

According to the Air transport ICAO-TI and IATA-DGR 65th, The sample is not regulated by IATA Dangerous Good Regulations 65th edition.

Section 15 - Regulatory Information

Regulatory Information:

National Hazardous Waste List

GHS -Globally harmonized system of classification and labeling of chemicals, third revised edition.

Transport of dangerous goods, sixteenth revised edition

ISO 11014-2009 Safety data sheet for chemical products - Content and order of sections.

Regulation (EC) No.1272/2008 Classification, Labeling and Packaging of Substances and Mixtures.

The International Maritime Dangerous Goods (IMDG) Code.

the Air transport ICAO-TI and IATA-DGR 65th

Section 16 - Additional Information

The above information is based on the data of which we are aware and is believed to be correct as of the data 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 data hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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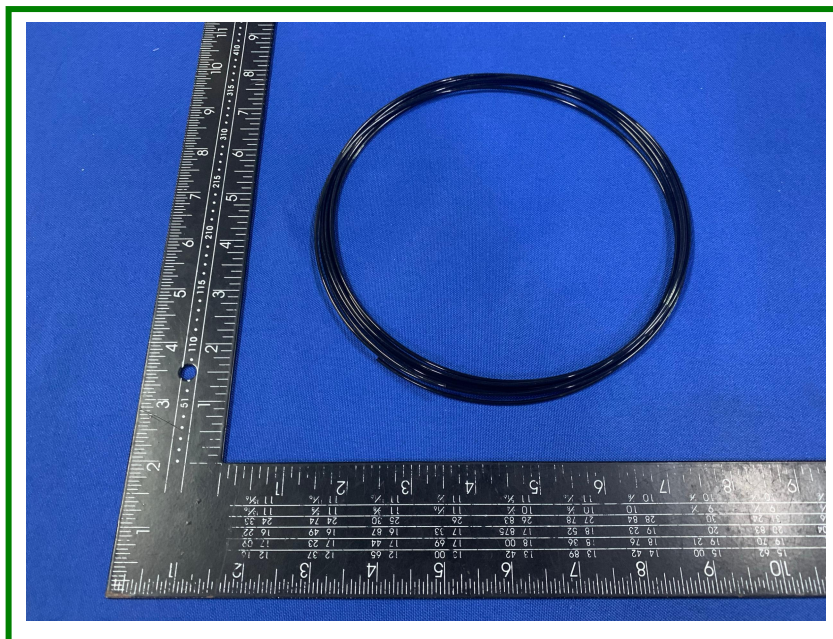


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Photos of submitted sample



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