

# Safety Data Sheet

in accordance with EPA and WORKSAFE regulations

Printing date 11.02.2022

Revision: 11.02.2022

## 1 Identification of the substance or mixture and of the supplier

**Product Name:** PLA eResin Liquid in Filament

**Other Means of Identification:** Mixture

**Part Number:** TL4433, TL4434, TL4435, TL4436, TL4437, TL4438, TL4439

**Recommended Use of the Chemical and Restriction on Use:** 3D Printer Filament Resin.

**Details of Manufacturer or Importer:**

Electus Distribution

16-18 Fisher Crescent

Mt Wellington, Auckland 1060

**Phone Number:** 0800 235 328

**Emergency telephone number:** National Poison Centre: 0800 POISON (0800 764-766)

## 2 Hazards identification

**Hazardous Nature:**

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Health and Safety at Work (Hazardous Substances) Regulations 2017, New Zealand.

Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2020 Transport of Dangerous Goods on Land.



Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sensitisation 1 H317 May cause an allergic skin reaction.

**Signal Word** Warning

**Hazard Statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

**Precautionary Statements**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P362+P364 Take off contaminated clothing and wash it before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P321 Specific treatment (see on this label).

P337+P313 If eye irritation persists: Get medical advice/attention.

P501 Dispose of contents/container in accordance with local/regional/national regulations.

## 3 Composition/Information on ingredients

**Chemical Characterization:** Mixtures

**Description:** Mixture of substances listed below with nonhazardous additions.

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<b>Hazardous Components:</b>		
CAS: 13048-33-4	Hexamethylene diacrylate ⚠ Skin Corrosion/Irritation 2, H315; Eye Irrit. 2A, H319; Skin Sensitisation 1, H317	>30.0%
CAS: 947-19-3	1-Hydroxycyclohexyl phenyl ketone ⚠ Eye Irrit. 2A, H319	5.0%
<b>Non Hazardous Components:</b>		
CAS: 13463-67-7	Titanium dioxide	5.0%

## 4 First aid measures

**Inhalation:** If inhaled, remove to fresh air. Seek medical attention if breathing problems develop.

### **Skin Contact:**

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms persist.

### **Eye Contact:**

In case of eye contact, rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 15 minutes. Seek medical attention if symptoms persist.

### **Ingestion:**

If swallowed, induce vomiting by drinking warm water. Keep head below hips to prevent aspiration. Do not give anything by mouth to an unconscious person. Seek medical attention if symptoms occur.

### **Symptoms Caused by Exposure:**

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation. May cause an allergic reaction. May cause redness.

Eye Contact: Causes serious eye irritation. May cause tearing and redness.

Ingestion: May cause gastrointestinal irritation.

## 5 Fire fighting measures

**Suitable Extinguishing Media:** Water mist, anti-ethanol foam, dry chemical powder, and carbon dioxide.

### **Specific Hazards Arising from the Chemical:**

Hazardous combustion products include oxides of carbon.

Product is not flammable. However, when exposed to light, product reacts violently and solidifies, giving off intense heat and irritating gases.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Minimise run-off from fire fighting measures entering drains or water courses.

### **Special Protective Equipment and Precautions for Fire Fighters:**

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

## 6 Accidental release measures

### **Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Extinguish all sources of ignition. Avoid sparks and open flames. No smoking.

### **Environmental Precautions:**

In the event of a major spill, prevent spillage from entering drains or water courses.

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## Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal. Use only non-sparking tools.

## 7 Handling and storage

### Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours. Use only outdoors or in a well-ventilated area.

Take precautionary measures against static discharge. Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

### Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed when not in use. Protect from sunlight, heat, and sources of ignition. Keep away from oxidising agents, acids, bases, and illuminants. The recommended storage temperature is 18-35 °C.

## 8 Exposure controls/personal protection

### Exposure Standards:

**CAS: 13463-67-7 Titanium dioxide**

WES TWA: 10 mg/m<sup>3</sup>

### Engineering Controls:

Ensure adequate ventilation and heat dissipation, keeping airborne concentrations below occupational exposure standards. Use explosion-proof ventilating equipment.

### Respiratory Protection:

Use an approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

### Skin Protection:

Rubber gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

### Eye and Face Protection:

Chemical safety glasses. See Australian/New Zealand Standard AS/NZS 1337 for more information.

## 9 Physical and chemical properties

### Appearance:

<b>Form:</b>	Liquid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Slight, ester-like
<b>Odour Threshold:</b>	No information available
<b>pH-Value:</b>	No information available
<b>Melting point/freezing point:</b>	No information available
<b>Initial Boiling Point/Boiling Range:</b>	No information available

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<b>Flash Point:</b>	No information available
<b>Flammability:</b>	Product is not flammable. However, when exposed to light, product reacts violently and solidifies, giving off intense heat and irritating gases.
<b>Auto-ignition Temperature:</b>	No information available
<b>Decomposition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Lower:</b>	No information available
<b>Upper:</b>	No information available
<b>Vapour Pressure:</b>	No information available
<b>Relative Density at 25 °C:</b>	1.104 (Water = 1)
<b>Vapour Density:</b>	No information available
<b>Evaporation Rate:</b>	No information available
<b>Solubility in Water:</b>	Insoluble
<b>Solubility in Solvents:</b>	No information available
<b>Partition Coefficient (n-octanol/water):</b>	No information available
<b>Viscosity at 25 °C:</b>	250±50 mPa·s

## 10 Stability and reactivity

### Possibility of Hazardous Reactions:

Contact with light may cause product to violently solidify, giving off intense heat and irritating gas.

**Chemical Stability:** Stable at ambient temperature and under normal conditions of storage and use.

**Conditions to Avoid:** Protect from sunlight, heat, and sources of ignition.

**Incompatible Materials:** Oxidising agents, acids, bases, and illuminants.

**Hazardous Decomposition Products:** Oxides of carbon.

## 11 Toxicological information

### Toxicity:

#### LD50/LC50 Values:

#### CAS: 13048-33-4 Hexamethylene diacrylate

Oral	LD50	>5,000 mg/kg (rat)
	LD50	>3,000 mg/kg (rab)

#### CAS: 13463-67-7 Titanium dioxide

Oral	LD50	>20,000 mg/kg (rat)
	LD50	>10,000 mg/kg (rabbit)
Inhalation	LC50/4 h	6,082 mg/l (rat)

### Acute Health Effects

**Inhalation:** May cause respiratory irritation.

**Skin:** Causes skin irritation. May cause an allergic reaction. May cause redness.

**Eye:** Causes serious eye irritation. May cause tearing and redness.

**Ingestion:** May cause gastrointestinal irritation.

**Skin Corrosion / Irritation:** Causes skin irritation.

**Serious Eye Damage / Irritation:** Causes serious eye irritation.

**Respiratory or Skin Sensitisation:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.

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**Carcinogenicity:** Titanium dioxide is classified by IARC as Group 2B - Possibly carcinogenic to humans.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

**Specific Target Organ Toxicity (STOT) - Repeated Exposure:**

Based on classification principles, the classification criteria are not met.

**Aspiration Hazard:** Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available

## 12 Ecological information

**Ecotoxicity:****Aquatic toxicity:**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**CAS: 13463-67-7 Titanium dioxide**

EC50/48 h	>100 mg/l (daphnia)
EC50/72 h	>10,000 mg/l (skeletonema costatum)
LC50/96 h	>1,000 mg/l (fish)
	>100 mg/l (rainbow trout)

**Persistence and Degradability:** No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.**Mobility in Soil:** No data available on finished product.**Other adverse effects:** No further relevant information available.

## 13 Disposal considerations

**Disposal Methods and Containers:** Dispose according to applicable local and state government regulations.**Special Precautions for Landfill or Incineration:**

Please consult your state Land Waste Management Authority for more information.

## 14 Transport information

**UN Number** Not regulated**Proper Shipping Name** Not regulated**Dangerous Goods Class** Not regulated**Packing Group:** Not regulated

## 15 Regulatory information

**HSNO Approval Code / Group Standard:**

HSNO Approval Code HSR002644: Polymers (Subsidiary Hazard) Group Standard 2020.

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<b>New Zealand Inventory of Chemicals</b>
All ingredients are listed.

## 16 Other information

**Date of Preparation or Last Revision:** 11.02.2022**Prepared by:** MSDS.COM.AU Pty Ltd[www.msds.com.au](http://www.msds.com.au)**Abbreviations and acronyms:**

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

WES: Workplace Exposure Standard

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sensitisation 1: Skin sensitisation, Hazard Category 1

**Disclaimer**

This SDS is prepared in accord with the New Zealand Chemical Industry Council document 'Code of Practice (No. HSNO CoP 8-1 09-06)' and Hazardous Substances (Safety Data Sheets) Notice 2020.

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