Raise3D Premium PLA

SDS number: S2C20170207B

Section 1: Product and company identification

1. Identification of the material

Raise3D standard PLA 3D printing filament

2. Identified Uses

Used primarily for extrusion-based 3D printing processes

3. Manufacturer information

Manufacturer:

Shanghai Fusion Tech Co. Ltd.

Address:

4th Floor, B5 Building, No.1600 Guoquan N Rd, Shanghai, China 200438

Tel/Fax:

+86-21-6533 7855

4. Emergency contact number

Emergency telephone number:

+86-21-6533 7855; or call LOCAL POISON CONTROL CENTER

Section 2: Hazards identification

1. Classification of the substance of mixture

1.1. Classification according to Directive 67/548/EEC or 1999/45/EC as amended

This substance does not meet the criteria for classification according to Directive 67/548/EEC as amended.

1.2. Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

2. Label elements

Not applicable.

3. Other hazards

Not likely to be an irritant in the solid form. Danger of burns when heated/molten material is handled.

Section 3: Composition / information on ingredients

1. Substances

Chemical Name	CAS No.	Weight (%)	Exposure Limits
Poly(lactic acid) resin	9051-89-2	>90%	None

Section 4: First aid measures

1. Description of first aid measures

1.1. Inhalation

Move to fresh air. Call a physician immediately if irritation persists.

1.2. Skin contact

Rinse immediately with plenty of water. If skin irritation persists, call a physician. Cool skin rapidly with cold water after contact with hot polymer.

1.3. Eye contact

Rinse immediately with plenty of water. Call a physician immediately.

1.4. Ingestion

Drink water as a precaution. Never give anything by mouth to an unconscious person. Do not induce omitting without medical advice. Call a physician immediately.

2. Most important symptoms and effects, both acute and delayed

Burns resulted from contacting or handling heated/molten materials

3. Indication of any immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

Section 5: Fire-fighting measures

1. Suitable extinguishing media

Foam. Water. Carbon dioxide (CO2). Dry chemical. Alcohol resistant foams are preferred if available. General-purpose synthetic foams (including AFFF) or protein foams may function, but much less effectively.

2. Special hazards arising from the substance or mixture

No specific hazard.

3. Advice for fire fighters

Follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures

Lab coat. Impervious gloves. Safety glasses with side shields.

2. Environmental precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

3. Methods and materials for containment and cleaning up

Shovel into suitable container for disposal.

Section 7: Handing and storage

1. Precautions for safe handling

Avoid prolonged contact with skin and eyes. Avoid dust formation. Workers should be protected from the possibility of contact with molten material. Low hazard for usual industrial or commercial handling.

2. Conditions for safe storage

Store in a cool, dry, well-ventilated area. Keep away from heat, sparks and flames. Keep containers closed. Avoid moisture contamination. Transferring dry pellets or granules between containers or charging into solvents can cause a build-up of static electricity which can be sufficient to cause fires and/or explosions in the presence of flammable materials.

Equipment should provide a means of dissipating any charges that may develop.

Section 8: Exposure controls / personal protection

1. Control parameters

Consult local authorities for acceptable exposure limits.

Biological limit values:

No biological exposure limits noted for the ingredient(s)

Recommended monitoring procedures:

Not available

Derived no-effect level (DNEL):

Not available

Predicted no effect concentrations (PNECs):

Not available

2. Engineering controls

Use local exhaust ventilation to maintain airborne concentrations below the TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it. For guidance on engineering control measures refer to publications such as the ACGIH current edition of 'Industrial Ventilation, a manual of Recommended Practice.

3. Personal protective equipment

Eyes:

safety glasses with side-shields

Skin:

lab coat

Respiratory:

Wear appropriate respirator when ventilation is inadequate.

Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Personal protective:

Equipment

Section 9: Physical and chemical properties

1. Information on basic physical and chemical properties

Appearance: Solid

Color: Various

Odor: Almost Odorless

Odor threshold: Not available

pH: Not applicable

Melting point/freezing point: 150°C

Softening temperature: 63°C

Boiling point: Not applicable

Flash point: Not applicable

Evaporation rate: Not applicable

Flammability: Not available

Upper/lower flammability or explosive limits: Not available

Vapor pressure: Not applicable

Vapor density: Not applicable

Relative density: 1.25 g/cm3

Solubility: No available

Partition coefficient (n-octanol/water): No available

Auto-ignition temperature: > 350°C

Decomposition temperature: No available

Viscosity: Not applicable

Section 10: Stability and reactivity

1. Reactivity

The product is stable.

2. Chemical stability

Material is stable under normal conditions.

3. Possibility of hazardous reactions

Burning produces obnoxious and toxic fumes. Aldehydes. Carbon monoxide (CO). carbon dioxide (CO2).

4. Conditions to avoid

Temperatures above 446F (230 °C).

5. Incompatible materials

Not available.

6. Hazardous decomposition products

Unlikely under normal industrial use. If the product is heated to temperatures excessively higher than those recommended on the technical data sheet, thermal decomposition is possible. Combustion products may include: carbon oxides (CO, CO2), nitrogen oxides (NO, NO2 etc.), hydrocarbons, HCN

Section 11: Toxicological information

1. Likely routes of exposure

Inhalation:

Non-irritating to the respiratory system.

Skin contact:

LD50/dermal/rabbit > 2000 mg/kg

Eye contact:

May cause physical abrasion in contact with eyes. Molten polymer will cause serious burns to the eyes.

Ingestion:

LD50/oral/rat > 5000 mg/kg

2. Symptoms

Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.

3. Information on toxicological effects

Acute toxicity: Dusts may irritate the respiratory tract, skin and eyes.

Skin corrosion/irritation: Dust may irritate skin.

Serious eye damage/eye irritation: Dust may irritate the eyes. Exposed may experience eye tearing, redness, and discomfort.

Respiratory sensitization: Not classified.

Skin sensitization: Not a skin sensitizer.

Germ cell mutagenicity: Not expected to be mutagenic.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as

carcinogens by OSHA, and not listed as carcinogens by NTP.

Reproductive toxicity: Not classified.

Specific target organ toxicity - single exposure: No data available

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: Due to the physical form of the product it is not an aspiration hazard.

Mixture versus substance information: Not applicable.

Other information: Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

Section 12: Ecological information

1. 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.

2. Persistence and degradability

No data available.

3. Bioaccumulative potential

Does not bioaccumulate. Inherently biodegradable.

4. Mobility in soil

No data available.

5. Other adverse effects

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.

Section 13: Disposal considerations

1. Waste treatment methods

In accordance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. Contact manufacturer if needed.

Section 14: Transport information

ADR: Not regulated as dangerous goods.

RID: Not regulated as dangerous goods.

AND: Not regulated as dangerous goods.

IATA: Not regulated as dangerous goods.

IMDG: Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

This substance/mixture is not intended to be transported in bulk.

Section 15: Regulatory information

1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorizations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.
Directive 2004/37/EC:
on the protection of workers from the risks related to exposure to carcinogens and mutagens at work
Not listed.
Directive 92/85/EEC:
on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding
Not listed.
Other EU regulations
Directive 96/82/EC (Seveso II):
on the control of major-accident hazards involving dangerous substances
Not listed.
Directive 98/24/EC:
on the protection of the health and safety of workers from the risks related to chemical agents at work
Not listed.
Directive 94/33/EC:
on the protection of young people at work
Not listed.
Other regulations
This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006.
National regulations:
Not available.

2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

Section 16: Other information

Revision information
Date of this revision: Mar 17, 2017
Declare to reader
During handling and use, product can cause static discharge. In the presence of flammable materials, a fire and/or explosion may occur. Molten material may cause thermal eye burns. Molten material may cause thermal skin burns.
Processing vapors may cause respiratory tract irritation.