

Raise3D Hyper Speed PLA Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

Section 1: PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade name

Raise3D Hyper Speed PLA 3D Printing Filament

1.2 Use of the product

3D Printing Filament

1.3 Manufacturer information

Supplier: Raise 3D Technologies, Inc.

Address: 43 Tesla, Irvine, CA 92618

Manufacturer address:

Building A1, Huanghai Road, Tongzhou District, Nantong City, Jiangsu Prov. China 226300

In case of toxicological emergency, contact your doctor first.

Emergency phone number: +86-021-65337855

Contact person (E-mail): Dr. Jin (minde.jin@raise3d.com)

Emergency contact information from Raise3D USA location:

United States

43 Tesla, Irvine, CA 92618

Tel: +1 888 963 9028.

Section 2: HAZARDS IDENTIFICATION

2.1 GHS classification

Physical hazards: Not classified.

Health hazards: Not classified.

Environmental hazards: Not classified.

2.2 GHS label elements

Hazard Pictograms: No hazard pictogram is used.

Signal Word(S): No signal word is used.

Hazard Statement: Not applicable.

2.3 Precautionary statement

Prevention: Not applicable.

Response: Not applicable.

Storage: Not applicable.

Disposal: Not applicable.

Other hazards: Not available.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance/Mixture:

Mixture

3.2 Ingredient(s):

Chemical Name	CAS No.	EC No.	Weight (%)
POLYLACTIC ACID	26100-51-6	231-595-7	70 - 80
Buta-1,3-diene;butyl prop-2-enoate;methyl 2-methylprop-2-enoate;styrene	25101-28-4	843-371-1	5 - 10
Calcium carbonate	471-34-1	207-439-9	2 - 10
polypropylene	9003-07-0	618-352-4	2 - 10

Section 4: FIRST AID MEASURES

4.1 First Aid Measures

First aid procedures

Eye contact: None expected to require first aid measures. Flush with running water for at least 15 minutes. If irritation persists get medical attention.

Skin contact: None expected to require first aid measures. Wash thoroughly with soap and water. Get medical attention in the unlikely event that irritation persists.

Inhalation: None expected to require first aid measures. If breathed in, remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical attention.

Ingestion: Immediate first aid is not likely to be required. A physician or poison control center can be contacted for advice.

4.2 Notes to physician

Treat symptoms

Section 5: FIRE FIGHTING MEASURES

5.1 Flammable properties

Not available

5.2 Extinguishing media

Suitable extinguishing media:

Use extinguishers suitable for surrounding fire.

CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Unsuitable extinguishing media:

Not available.

5.3 Firefighting equipment/instructions

Wear self-contained breathing apparatus for fire fighting if necessary.

Wear full protective suit.

5.4 Hazardous combustion products

Carbon oxides.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas.

For emergency responders:

Avoid skin and eye contact. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions

Avoid disposing into drainage/sewer system or directly into the aquatic environment.

6.3 Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers. Clean up affected area.

Section 7: HANDLING AND STORAGE

7.1 Handling

Advice on safe handling:

Ensure good ventilation/exhaustion at the workplace. Wash thoroughly after handling.

Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

Advice on protection against fire and explosion:

Normal measures for preventive fire protection.

Dust explosion class:

No data available.

7.2 Conditions for safe storage, including any incompatibilities**Requirements for storage areas and containers:**

Store spool in a dry, cool and ventilated place.

Further information on storage conditions:

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Advice on common storage

Keep away from oxidizing agents and strongly acid or alkaline materials. Keep away from food, drink and animal feeding stuffs.

7.4 Storage temperature

> 0 °C and ≤ 40 °C

7.5 Other data

No decomposition if stored and applied as directed.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Control parameters****Occupational exposure limits:**

This product has no PEL, TLV, or other recommended exposure limit

8.2 Biological limit values

No biological exposure limits noted for the ingredient(s).

8.3 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.4 Individual protection measures, such as personal protective equipment:

Eye/face protection: No special requirements.

Skin protection: No special requirements.

Respiratory protection: No special requirements.

General hygiene considerations: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: Solid.

Colour: Various.

Odour: Odorless.

Odour threshold: Not available.

pH: Not available.

Melting point/freezing point(°C): 155-185°C

Initial boiling point and boiling range(°C): Not available.

Flash point (°C): Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Upper/lower flammability limits: Not available.

Upper/lower explosive limits: Not available.

Vapour pressure (20°C): Not available.

Vapour density: Not available.

Relative Density: 1.24.

Solubility (water): Insoluble.

Partition coefficient (n-Octanol/Water, log Po/w): Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: ≥ 380 °C.

Viscosity, dynamic (mPa.s): Not available.

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Stable at room temperature in closed containers under normal storage and handling conditions.

10.3 Possibility of hazardous reactions:

No hazardous reactions known.

10.4 Conditions to avoid:

Incompatible materials.

10.5 Incompatible materials:

Materials to avoid: Strong oxidizing agents.

10.6 Hazardous decomposition products

Carbon oxides.

Section 11: TOXICOLOGICAL INFORMATION**11.1 Toxicokinetics, metabolism and distribution:**

Non-human toxicological data: Not available.

11.2 Information on toxicological effects**Acute toxicity:**

LD50(Oral, Rat): 4290mg/kg.

LD50(Dermal, Rabbit): 5990uL/kg.

LC50(Inhalation, Rat): Not available.

Skin corrosion/Irritation: Not classified.

Serious eye damage/irritation: Not classified.

Respiratory or skin sensitization: Not classified.

Germ cell mutagenicity: Not classified.

Carcinogenicity: Not classified.

Reproductive toxicity: Not classified.

STOT- single exposure: Not classified.

STOT - repeated exposure: Not classified.

Aspiration hazard: Not classified.

11.3 Additional information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. No

classification date on carcinogenic properties of this material is available from the EPA IAPV NTP OSHA or ACGIH.

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity:

LC50(96h, Fish): Not available.

LC50(48h, Crustacea): Not available.

EC50(72h, Algae/aquatic plants): Not available.

Chronic (long-term) toxicity:

NOEC(Fish): Not available.

NOEC(Crustacea): Not available.

EC50(Algae/aquatic plants): Not available.

12.2 Persistence and degradability

No data is available on the degradability.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

Section 13: DISPOSAL CONSIDERATIONS

13.1 Disposal instructions

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

13.2 Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14: TRANSPORT INFORMATION

	Land transport (ADR/RID)	Inland waterways (ADN)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN number	Not regulated	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated	Not regulated
Transport hazard class(es)	Not regulated	Not regulated	Not regulated	Not regulated
Packing group	Not regulated	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No	No
Transport in bulk according to Annex II of Marpol and the IBC Code	Not regulated	Not regulated	Not regulated	Not regulated
Special precautions for user	See section 2.2	See section 2.2	See section 2.2	See section 2.2

Section 15: REGULATORY INFORMATION

15.1 US federal regulations

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated

15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

No.

SARA 313 (TRI reporting)

Not regulated.

15.3 Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Not regulated.

Section 16: OTHER INFORMATION

16.1 Revision information

Date of this revision: 02-08-2023

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

RID: Regulation for rail International transportation of Dangerous goods.

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

IMDG: Code international maritime dangerous goods code.

ICAO-TI: International Civil Aviation Organization The International Civil Aviation Covenant.

IATA: International Air Transport Association.

LC50: Median lethal concentration.

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration.

DNEL: Derived no-effect level.

PNEC: Predicted no-effect concentration.

16.3 Key literature references and sources for data

Hazard Communication Standard (29 CFR 1910.1200)

16.4 Training instructions

Not applicable.

16.5 Further information

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.