PolyDissolve™ S1

SDS number: SU3012017080410

Section 1: Product and company identification

1. Identification of the material

PolyDissolve™ S1 3D printing filament

2. Identified Uses

Used primarily for extrusion-based 3D printing processes

3. Manufacturer information

Manufacturer:
JF Polymers (Suzhou) Co. Ltd.
Address:
Haicheng Industrial Park
Building 7
Changshu Economic and Technological Zone (CEDZ) Changshu, Suzhou, Jiangsu Province, 215513
China
Tel/Fax:
+86-512-52096516 / +86-512-52096512

4. Emergency contact number

Emergency telephone number:
+86-512-52096516; 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

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

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

Fine particles may form explosive mixtures with air. This material does not ignite easily; however, feasible precautions against dust explosion are recommended. Not a PBT or vPvB substance or mixture.

Section 3: Composition/information on ingredients

1. Substances

Chemical Name	CAS No.	Weight (%)	Exposure Limits
Polyvinyl alcohol, fully saponified	9002-89-5	70%-88%	None
Methanol (Impurity)	67-56-1200-659-6	<2%	None

Section 4: First aid measures

1. Description of first aid measures

1.1. Inhalation

If dust from the material is inhaled, remove the affected person immediately to fresh air.
Call a physician if symptoms develop or persist.

1.2. Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

1.3. Eye contact

Do not rub eye. Rinse with water. Get medical attention if irritation develops and persists.

1.4. Ingestion

Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

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

Contact with dust: Irritation of eyes and mucous membranes. Coughing.

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

Water fog. Foam. Dry powder. Carbon dioxide (CO2). Use fire-extinguishing media appropriate for surrounding materials. Apply extinguishing media carefully to avoid creating airborne dust.

2. Special hazards arising from the substance or mixture

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

3. Advice for fire fighters

3.1. Special protective equipment for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

3.2. Special firefighting procedures

Use standard firefighting procedures and consider the hazards of other involved materials. Use water spray to cool unopened containers.

Section 6: Accidental release measures

1. Personal precautions, protective equipment and emergency procedures

Use personal protection recommended in Section 8 of the SDS.

2. Environmental precautions

Environmental manager must be informed of all major spillages

3. Methods and materials for containment and cleaning up

Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.

Section 7: Handling and storage

1. Precautions for safe handling

Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

2. Conditions for safe storage

Keep container tightly closed. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS).

Section 8: Exposure controls/personal protection

1. Control parameters

Occupational exposure limits

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Dust (CAS -)	TWA	4 mg/m3 10mg/m3	Respirable dust Inhalable dust
Methanol (Impurity) (CAS67-56-1)	STEL TWA	333 mg/m3 250ppm 266mg/m3 200ppm	

Biological limit values: No biological exposure limits noted for the ingredient(s)
Recommended monitoring procedures: Follow standard monitoring procedures.
Derived no-effect level (DNEL): Not available
Predicted no effect concentrations (PNECs): Not available

2. Engineering controls
Provide appropriate exhaust ventilation at places where dust is formed or the material is molten, such as during printing.

3. Personal protective equipment
Wear gloves when handling hot/molten material.

Section 9: Physical and chemical properties

1. Information on basic physical and chemical properties
Appearance: Filament, Solid
Color: Various
Odor: Odorless
Odor threshold: Not available
pH: 5-7
Melting point/freezing point: Not applicable
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: Not applicable
Solubility: Soluble in water
Partition coefficient (n-octanol/water): No data available
Auto-ignition temperature: Not applicable
Decomposition temperature: Not applicable
Viscosity: Not applicable

Section 10: Stability and reactivity

1. Reactivity
Stable at normal conditions.

2. Chemical stability
Material is stable under normal conditions.

3. Possibility of hazardous reactions
Hazardous polymerization does not occur.

4. Conditions to avoid
Contact with incompatible materials. Avoid dust close to ignition sources.

5. Incompatible materials
Strong oxidizing agents. Strong acids.

6. Hazardous decomposition products
Carbon oxides

Section 11: Toxicological information

1. Likely routes of exposure
Inhalation:
Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. May be harmful if inhaled.
Skin contact:
Components of the product may be absorbed into the body through the skin. Dust may irritate skin.
Eye contact:
Dust may irritate the eyes.
Ingestion:
May cause discomfort if swallowed.

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: Not expected to be acutely toxic.
Skin corrosion/irritation: Based on available data, the classification criteria are not met. Dust may irritate skin.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met. Dust may irritate the eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
Respiratory sensitization: Based on available data, the classification criteria are not met.
Skin sensitization: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
Specific target organ toxicity - single exposure: Based on available data, the classification criteria are not met.
Specific target organ toxicity - repeated exposure: Based on available data, the classification criteria are not met.
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
Expected to be inherently biodegradable.

3. Bioaccumulative potential
The product is not expected to bioaccumulate.

4. Mobility in soil
Not available.

5. Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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: Apr 24, 2017
Declare to reader
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