

Material Safety Data Sheet (MSDS)

Model:

K+



Section 1 **Identification of product and supplier**

1.1 Product Identifiers

Product Name: 3D Printer Resin

Model: K+

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Export to:

3D printing Not mentioned

1.3 Details of the supplier of the safety data sheet

Manufacturer:

Dongguan Godsaid Technology Co., Ltd.

Address:

2nd Floor,Building C2,Yifang Huigu Science and Technology park, 106Lingnan Road,Tangxia Town,Dongguan City,Guangdong. Province,China.

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Section 2 **Hazards identification**

2.1 Classification of the substance or mixture Classification according to Regulation GHS

- 4-acryloylmorpholine(CAS No.: 5117-12-4)
- 4 Acute toxicity (oral), Hazard Category 4: H302
- Specific target organ toxicity Repeated exposure, Hazard Category 2: H373
- 1 Serious eye damage/eye irritation, Hazard Category 1: H318
- 1 Sensitisation Skin, Hazard Category 1: H317

2.2 GHS Label elements including precautionary statements

Pictograms:



Signal Word: Warning

A Risk description:

⚠ H318Causes serious eye damage.

↑ H302 Harmful if swallowed.

⚠ H317May cause an allergic skin reaction.

⚠ H373May cause damage to organs through prolonged or repeated exposure.

Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P312 IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell.

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

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

P310 Immediately call a POISON CENTER or doctor/physician.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see ..on this label).

P322 Specific measures (see ... this label).

P330 Rinse mouth.

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

P363 Wash contaminated clothing before reuse.

Precaution:

P273 Avoid release to the environment.

Accident response:

P312 Call a first aid center/doctor if you feel unwell.

Disposal:

P501 Deliver the contents/container to an approved waste treatment plant for disposal.

Physical and chemical hazards

(Currently, No information on the dangers of physical or chemical information.)

Health hazards:

Environmental hazard:

H302 Harmful if swallowed.

Currently, no environmental hazard.

Other hazards:

No information available.

Section 3

Composition / information on ingredients

3.1 Substance or mixture

Chemical characterization: Mixture

3.2 Information about the chemical nature of product

Chemical Name	CAS No.	EC No.	Concentration/ Concentration range
Acrylated aliphatic urethane	68987-79-1	-	45%
4-acryloylmorpholine	5117-12-4	418-140-1	50%
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	278-355-8	4.5%
UV black color paste	1333-86-4	-	0.5%

Section 4 First aid measures

4.1 Description of first aid measures

General Advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

Eye contact:

Flush eyes with water as a precaution.

Skin Contact:

Wash off with soap and plenty of water.

Inhalation:

If breathed in, move person into fresh air.If not breathing, give artificial respiration. Consult a physician.

Ingestion:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5 **Fire-fighting measures**

5.1 Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Unsuitable extinguishing

No information available

5.3 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides.

5.4 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.5 Further information

No data available

Section 6 Accidental release measures

6.1 Personal precautions protective equipment and emergency procedures

Avoid breathing dust, vapours, mist or gas. For personal protection see section 8.

6.2 Environm ental precautions

Do not let product enter drains.

Discharge in to the environment must be avoided.

6.3 Methods and materials for containm ent and cleaning up

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

6.4 Reference to other sections

For disposal see section 13.

Section 7 **Handling and storage**

7.1 Precautions for safe handing

- 1. Avoid contact with skin and eyes.
- 2. Avoid inhaling of vapor or mist.
- 3. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

- 1. Store in cool place.
- 2. Keep container tightly closed in a dry and well-ventilated place.
- 3. Storage class (TRGS 510): Combustible liquid

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

Section 8 **Exposure controls/personal protection**

8.1 Control parameters

Components with workplace control parameters No known national exposure limits.

8.2 Exposure controls

Appropriate engineering controls.

General industrial hygiene practice.

Respiratory protection:

If necessary, wear a breathing mask.

Eye/face protection:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection:

Working clothes. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

8.3 Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge in to the environment must be avoided.

Section 9 **Physical and chemical properties**

9.1 Information on basic physical and chemical properties

Appearance	Black liquid	Initial boiling point and boiling range	No data available
Color	Black	Flash point	150°C
Odor	Special acrylic odor	Kinematic viscosity	No data available
рН	6	Flammability	Not flammable
Melting point/ freezing point	No data available	Explosive properties	Not an explosive

Upper/lower limit of explosion	No data available	Partition coefficient n-octanol/water	No data available
Vapour pressure (at 20°C)	No data available	Auto-ignition temperature	No data available
Vapour density	No data available	Decomposition temperature	No data available
Density/ relative density	0.95-1.06 g/cm3 at 25 °C	Oxidizing properties	Not an oxidant or a peroxide
Water solubility	Insoluble	The evaporation rate	No data available

9.2 Other safety information

The product performs no other dangerous properties

Section 10 **Stability and reactivity**

10.1 Reactivity

No data available

10.2 Chemical Stability

Stable under recommended storage and handling conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions.

- Carbon oxides, Nitrogen oxides (NOx)

Other decomposition products - No data available.

Section 11 **Toxicological information**

11.1 Information on toxicological effects

Refer to below information

Acute toxicity	LD50 Oral-Rat->2125mg/kg LD50 Dermal-Mouse>5000mg/kg	Reproductive toxicity	No data available
Skin corrosion/ irritation	No data available	Specific target organ toxicity - single exposure	No data available
Serious eye damage/ eye irritation	No data available	Specific target organ toxicity - repeated exposure	No data available
Respiratory or skin sensitization	No data available	Aspiration hazard	No data available
Carcinogenicity	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. IARC		

11.2 Additional instructions

Registration of toxic effects of chemical substances:

No data available

Signs and symptoms of exposure:

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

Section 12 **Ecological information**

12.1 Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - 21.4 mg/l-96h. Toxicity to algae LC50 - Chlamydomonas globose - 56 mg/l - 48h

12.2 Persistence and degradability

No data available

12.3 Bio biodegradability

No data available

12.4 Mobility in soil

No data available

12.5 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.

12.6 Other adverse effects

No data available

Section 13 Waste treatment methods

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by the regulation. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product:

Waste must be disposed of in accordance with national and local environmental regulations.

Offer surplus and non-recyclable product to a licensed disposal company.

Contaminated packaging:

Dispose of as unused product.

Section 14 **Transport information**

14.1 UN Number

ADR/RID	_
IMDG	_
IATA-DGR	_

14.2 UN proper shipping name

ADR/RID	Not dangerous goods
IMDG	Not dangerous goods
IATA-DGR	Not dangerous goods

14.3 Transport hazard class(es): UN

ADR/RID	-
IMDG	_
IATA-DGR	_

14.4 Packaging group

ADR/RID	_
IMDG	_
IATA-DGR	_

14.5 Environmental hazards

ADR/RID	No
IMDG	No
IATA-DGR	No

14.6 Special precautions for user

Please select the appropriate transportation vehicle and storage conditions according to the nature of the chemical.

The means of transport should be equipped with the appropriate variety and quantity of fire-fighting materials and leakage emergency treatment equipment. If you choose road transportation, please follow the prescribed route.

14.7 Incompatible materials

Strong oxidizing agents

Section 15 **Regulation information**

15.1 Safety, health and environmental regulations/legislation specific the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

IECSC: Exist or conform to the existing list

Toxic Substances Control Act (TSCA) Status: Components of these products are not listed on the TSCA Chemical Substance Inventory of Existing Chemical Substances.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

Section 16 Other information

The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

End of Safety Data Sheet