

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

- **Trade name:** BlueCast Cr3a – Cr3a Curing Liquid
- **Synonym / Description:** Photocurable resin for DLP/SLA 3D printers for direct investment casting of jewelry/ acrylic paint for UV cure for figurines

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

- **Application of the substance / the preparation**
Resin for DLP/SLA 3D printers / UV curable paint for figurines

1.3 Details of the supplier of the safety data sheet

- **Manufacturer / Supplier:**
BlueCast
Corso Italia, 25 Verdello 24049 BG Italy
+39 035 52 93 098
+39 3483391300

1.4 Emergency telephone number

- +39 3483391300
 - +39 035 52 93 098
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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

health hazards

Skin Irrit. 2

hazard statements for health hazards

H315 Causes skin irritation.

health hazards

Eye Irrit. 2

hazard statements for health hazards

H319 Causes serious eye irritation.

health hazards

Skin Sens. 1

hazard statements for health hazards

H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or 1999/45/EC

Additional information

No information available for acute dermal and inhalative toxicity

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2.2 Label elements

Hazard components for labelling

Phosphine oxide

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms

GHS07

Signal word

Warning

Hazard statements

hazard statements for health hazards

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

Hazard statements for environmental hazards:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

General:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Prevention:

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

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

Disposal:

P501 Dispose of contents/container to industrial incineration plant.

Product identifiers

Phosphine oxide



2.3 Other hazards

Other adverse effects

People who suffer from skins problems, asthma, allergies, chronic or recurring respiratory illnesses must not be deployed in processes, which use this substance. Process vapours can irritate airways, skin and eyes.

SECTION 3: Composition/information on ingredients

3.1 Chemical characterization: Substances

Methacrylate oligomers 10/70%	C.A.S. reserved (atoxic oligomers)
Polyols 10/70%	C.A.S. reserved (atoxic polyols)
Methacrylate monomer 10/70%	C.A.S. reserved (atoxic monomer)
Photoinitiators 0,1/5%	C.A.S. 75980-60-8

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SECTION 4: First aid measures

4.1 Description of first aid measures

▪ **General information:**

Immediately remove any clothing soiled by the product.
Involve doctor immediately.

▪ **After inhalation:**

In case of accidental inhalation of monomers provide fresh air, rest and warmth.
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

▪ **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.
Avoid contact with UV and sunlight.

▪ **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

▪ **After swallowing:**

Call a doctor immediately.
Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** water with full jet

5.2 Special hazard arising from the substance or mixture

In case of fire, the following can be released: CO₂

5.3 Advice for firefighters

▪ **Protective equipment:**

Wear self-contained respiratory protective device.
Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation
Keep people at a distance and stay on the windward side.

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6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.
Do not to allow to enter sewers / surface or ground water.

6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to item 13.

6.4 Reference to other sections

See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of dust.

▪ **Information about fire – and explosion protection:**

Keep ignition sources away – Do not smoke.

Protect from heat.

7.2 Conditions for safe storage, including any incompatibilities

▪ **Storage:**

Requirements to be met by storerooms and receptacles: no special requirements.

▪ **Information about storage in one common storage facility:** not required.

▪ **Further information about storage conditions:**

Store in cool, dry condition in well-sealed receptacles. Protect from heat and direct sunlight.
Store receptacle in a well-ventilated area.
Store under lock and key or with access restricted to technical experts or their assistants only.
Do not expose to temperature above 60 Celsius.

7.3 Specific and use

No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical facilities: no further data; see item 7.

8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:** not required.
- **Additional information:** The lists valid during the making ere used as basis.

8.2 Exposure controls

▪ **Personal protective equipment:**

▪ **General protective and hygienic measures:**

The usual precautionary measures are to be adhered too when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.

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- **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self- contained respiratory protective device.

Respirator must be worn if exposed to dust.

- **Protection of hands:**

Protective gloves

- **Material of gloves**

Products without solvents added: wear nitrile gloves. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.



- **Penetration time of glove material**

The exact break through time has to be found out by manufacturer of the protective gloves and has to be observed.

- **Eye protection:**

Tightly sealed goggles

Goggles recommended during refilling



- **Body protection: impervious protective clothing**

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- **General information**

- **Appearance:**

Form: Liquid

Color: Blue

- **Odor:** Characteristic acrylic

- **Odor threshold:** Not determined

- **Change in condition**

Melting point / Melting range:

18-25°C

Boiling point / Boiling range:

Undetermined

- **Flash point:**

> 100°C

- **Flammability (solid, gaseous):**

Product is not flammable.

- **Ignition temperature:**

Decomposition temperature:

>250°C

- **Self-igniting:**

Product is not self-igniting.

- **Danger of explosion:**

Not explosive.

- **Explosion limits:**

Lower:

Not determined.

Upper:

Not determined.

- **Vapour pressure:**

Not applicable.

- **Density:**

Not determined.

- Bulk density at 20°C:

1.08 g/cm³

- Relative density:

Not determined.

- Vapour density:

Not applicable.

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▪ Evaporation rate:	Not applicable.
▪ Solubility in / Miscibility with water at 20°C:	>300 g/L
▪ Position coefficient (n-octanol/water):	Not determined.
▪ Viscosity:	
Dynamic (25°C):	Not applicable.
Kinematic:	Not applicable.
▪ Solid contents:	100.0%

9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

10.2 Chemical stability

▪ **Thermal decomposition / conditions to be avoided:**

Do not expose to temperatures above 60 Celsius.

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Condition to avoid No further relevant information available.

10.5 Incompatible materials

Incompatible with acids and bases.

Avoid moisture.

10.6 Hazardous decomposition products No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

▪ **Acute toxicity:**

Primary irritant effect:

Irritation of skin

OECD 404 Skin irritation, 0.04 (rabbit) (PII 0-8)

Irritation of eyes

OECD 405 Eye irritation, 2.2 (rabbit) (PII 0-13)

▪ **Skin corrosion/irritation:**

Based on available data, the classification criteria are not met.

▪ **Serious eye damage/irritation:**

Causes serious eye irritation.

▪ **Respiratory or skin sensitisation:**

No sensitizing effect known.

▪ **CMR effects** (carcinogenity, mutagenicity and toxicity for reproduction): Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

▪ **Aquatic toxicity:** No further relevant information available.

12.2 Persistence and degradability No further relevant information available.

12.3 Bioaccumulative potential No further relevant information available.

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12.4 Mobility in soil No further relevant information available.

▪ **Ecotoxicological effects:**

▪ **Remark:** Harmful to fish

▪ **Additional ecological information:**

General notes:

Water hazard class 2(German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Harmful to aquatic organisms

12.5 Results of PBT and vPvB assessment

▪ **PBT:** Not applicable.

▪ **vPvB:** Not applicable.

12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

▪ Recommendation Can be incinerated, when in compliance with local regulations.

▪ **European waste catalogue**

08 01 99

wastes not otherwise specified

▪ **Uncleaned packaging:**

▪ **Recommendation:**

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

SECTION 14: Transport information

14.1 UN-Number ADR, AND, IMDG, IATA

Void

14.2 UN pro per shipping name ADR

Void

AND, IMDG, IATA

Void

14.3 Transport hazard class(es) ADR, AND, IMDG, IAT Calss

Void

14.4 Packing group ADR, IMDG, IATA

Void

14.5 Environmental hazards:

Marine pollutant: No

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II

of MARPOL73/78 and the IBC Code

Not applicable.

▪ UN "Model Regulation":

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Trade name: BlueCast Cr3a – Cr3a Curing Liquid

SECTION 15: Regulatory information

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The data are based on the current state of our knowledge and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method to use. We do not accept responsibility for any harm caused by the use of this information. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use. In all cases, our general condition of sale is applied.

▪ Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the international transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organization

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the international Carriage of Dangerous Goods by Road)

IMDG: International Air Transport Association

GHS: Globally Harmonized System of Classification and labelling of chemicals

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

*Data compared to the previous version altered.