

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

071483643

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

071483551



# MATERIAL SAFETY DATA SHEET

## Section 1: Identification

**Product Name:** Ackuretta CURO Element Model Beige

**Chemical Name/Synonyms:** Additive plastic

**Application:** Methacrylate-based resin 3D printing systems with 385 nm or 405 nm light sources for fabrication of dental models.

**Application:** Methacrylate-based resin

**Company:** Ackuretta Technologies Pvt Ltd

**Manufacturer:** Ackuretta Technologies Pvt. Ltd.,

Taiwan (R.O.C.)

Taipei City, 11493 Neihu District,

Section 1, Neihu Road,

No. 322, 6F

T: +886 2 7737 8330

E-mail: [info@ackuretta.com](mailto:info@ackuretta.com)

**In emergency call** +886 2 7737 8330

**MSDS Date of preparation:** 3rd of July, 2023

## Section 2: Hazard(s) Identification

### Classification of the substance or mixture:

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

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

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

Skin Sens. 1

Aquatic Acute 2

H318, H315, H317, H401

For the classifications not written out in full in this section the full text can be found in section 16.

### Label elements



**Signal Word:**

Danger

**Hazard Statement:**

H318 Causes serious eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H401 Toxic to aquatic life.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 Causes damage to organs through prolonged or repeated exposure.

**Precautionary Statements (Prevention):**

P280 Wear protective gloves and eye/face protection.

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

P273 Avoid release to the environment.

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

P264 Wash contaminated body parts thoroughly after handling.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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

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

P314 Get medical advice/attention if you feel unwell.

**Precautionary Statements (Response):**

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.

P303 + P361 IF ON SKIN (or hair): Wash with plenty of soap and water.

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

P308+P313 IF exposed or concerned: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

**Precautionary Statements (Disposal):**

P501 Dispose of contents/container to hazardous or special waste collection point.

**Other hazards**

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

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

**Section 3: Composition/information on Ingredients****Substances**

Not applicable

**Mixtures**

Chemical nature

Blend based on: acrylic resin

#### Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

Oxybis(methyl-2,1-ethanediyl) diacrylate

Content (W/W):  $\geq 25\%$  -  $< 50\%$

CAS Number: 57472-68-1

EC-Number: 260-754-3

REACH registration number: 01-2119484629-21

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

Skin Sens. 1

Acute Tox. 5 (oral)

Aquatic Acute 2

H318, H315, H303, H317, H40

Diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

Content (W/W):  $\geq 1\%$  -  $< 3\%$

CAS Number: 75980-60-8

EC-Number: 278-355-8

Skin Sens. 1B

Repr. 2 (fertility)

Repr. 2 (unborn child)

Aquatic Acute 2

Aquatic Chronic 2

H317, H361fd, H411, H411

Polymeric urethane acrylate

Content (W/W):  $\geq 50\%$  -  $< 75\%$

CAS Number: 52404-33-8

Skin Corr./Irrit. 2

Eye Dam./Irrit. 2

H319, H315

Silicon Dioxide

Content (W/W):  $< 0.5\%$

CAS number: 7631-86-9

EC Number: 231-545-4

H350, H372, H373

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

### Section 4: First Aid Measures

#### **Description of first aid measure**

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

**Most important symptoms and effects, both acute and delayed**

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

**Indication of any immediate medical attention and special treatment needed**

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

**Section 5. Fire-fighting procedures**

**Extinguishing media**

Suitable extinguishing media:  
dry powder, foam

**Special hazards arising from the substance or mixture**

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

**Advice for fire-fighters**

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

**Further information:**

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

**Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

Avoid contact with the skin, eyes and clothing. Avoid inhalation. Handle in accordance with good industrial hygiene and safety practice.

**Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

**Methods and material for containment and cleaning up**

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

Incinerate or take to a special waste disposal site in accordance with local authority regulations.

Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.

**Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

## Section 7: Handling and Storage

### Precautions for safe handling

Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours.

Protection against fire and explosion:

Heated containers should be cooled to prevent polymerization. Take precautionary measures against static discharges.

### Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

## Section 8: Exposure Controls/Personal Protection

### Limitation and monitoring of exposure

#### Protective equipment



**Suitable technical controller:** Adequate room ventilation and local aspiration must be ensured. The maximum allowable concentration of the product or ingredients must be observed.

**Eye/face protection:** Eye protection corresponding to a recognized standard should be worn if a risk assessment shows that eye contact is possible. The following personal protective clothing should be worn: Chemical safety goggles. Wear close-fitting chemical safety goggles or face protection.

**Hand protection:** Wear protective gloves. In accordance with the data specified by the protective glove manufacturers, it is required while using them to check whether the gloves maintain their repellent properties and to change them as soon as damage is detected. In the case of exposure up to 8 hours, protective gloves made of the following material must be worn: Nitrile rubber.

**Other skin and personal protection:** Avoid contact with the skin. Wear suitable clothing to prevent possible skin contact.

**Hygiene measures:** Wash contaminated skin thoroughly after handling. Before removing the clothing, wash contaminated clothing and skin immediately with plenty of water. Immediately remove all contaminated garments and wash before wearing them again. Contaminated work clothing should not be allowed out of the workplace. When using the product, do not eat, drink or smoke.

**Respiratory protection:** If ventilation is inadequate, suitable respiratory protection must be worn. Wear a protective mask with full face protection and the following filter cartridge: Filter against organic vapors. Highly effective particle filters.

## Section 9: Physical and Chemical Properties

**Form:** Liquid

**Odor:** acrylic like

**Colour:** Beige

**pH:** 6 - 8

**Melting point/melting range:** >60°C

**Boiling point/boiling range:** >100°C  
**Flash point:** >100°C  
**Flammable limits (lower) (%v/v):** Not highly inflammable  
**Upper/lower flammability or explosive limits:** For liquids not relevant for classification and labelling.  
**Auto ignition temperature:** Not determined  
**Danger of explosion:** Not applicable  
**Oxidizing properties:** Not applicable  
**Vapor pressure:** Not determined  
**Relative density:** 1.1 g/cm<sup>3</sup>  
**Solubility:** Poorly soluble  
**Viscosity:** Approx. 421 mPa\*s  
**Viscosity, kinematic:** not determined  
**Explosion hazard:** not explosive  
**Fire promoting properties:** not fire-propagating

#### Section 10: Stability and Reactivity

##### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

##### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

##### Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.

The product is stabilized against spontaneous polymerization prior to despatch.

##### Conditions to avoid

See SDS section 7 - Handling and storage.

##### Incompatible materials

Substances to avoid:

No substances known that should be avoided.

##### Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

#### Section 11: Toxicological Information

##### Acute toxicity

Assessment of acute toxicity:

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

##### Irritation

Assessment of irritating effects:

Skin contact causes irritation. May cause severe damage to the eyes.

##### Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible.

##### Germ cell mutagenicity

Assessment of mutagenicity:

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

**Carcinogenicity**

Assessment of carcinogenicity:

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

**Reproductive toxicity**

Assessment of reproduction toxicity:

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

**Developmental toxicity**

Assessment of teratogenicity:

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

**Specific target organ toxicity (single exposure)**

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

**Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**

Assessment of repeated dose toxicity:

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

**Aspiration hazard**

No aspiration hazard expected.

**Other relevant toxicity information**

The product has not been tested. The statement has been derived from the properties of the individual components.

**Section 12: Ecological Information (non-mandatory)****Toxicity**

Assessment of aquatic toxicity:

Acutely toxic for aquatic organisms.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

**12.2. Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

No data available concerning biodegradation and elimination.

**12.3. Bioaccumulative potential**

Assessment bioaccumulation potential:

The product has not been tested.

**12.4. Mobility in soil**

Assessment transport between environmental compartments:

Volatility: No data available.

**12.5. Results of PBT and vPvB assessment**

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

**12.6. Other adverse effects**

No data available.

**12.7. Additional information**

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:

The product has not been tested. The statement has been derived from the properties of the individual components. Do not discharge product into the environment without control.



### Section 13: Disposal Instructions

Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations.

A waste code in accordance with the European waste catalog (EWC) cannot be specified, due to dependence on the usage.

The waste code in accordance with the European waste catalog (EWC) must be specified in cooperation with disposal agency/manufacturer/authorities.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

### Section 14: Transport Information (non-mandatory)

No hazardous material as defined by the prescriptions. No specific regulation for transport necessary. This product is NOT classified as dangerous for IATA Transport. Non-hazardous; Non-restricted Materials.

### Section 15: Regulatory Information (non-mandatory)

#### **Safety, health and environmental regulations/legislation specific for the substance or mixture**

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

#### **Chemical Safety Assessment**

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

### Section 16: Other Information

Any other intended applications should be discussed with the manufacturer.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Skin Corr./Irrit. Skin corrosion/irritation.

Eye Dam./Irrit. Serious eye damage/eye irritation.

Skin Sens. Skin sensitization.

Repr. Reproductive toxicity.

Aquatic Chronic Hazardous to the aquatic environment - chronic.

H318 Causes serious eye damage.

H315 Causes skin irritation.

H303 May be harmful if swallowed.

H317 May cause an allergic skin reaction.

H401 Toxic to aquatic life.

H350 May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 Causes damage to organs through prolonged or repeated exposure.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H411 Toxic to aquatic life with long lasting effects.  
H319 Causes serious eye irritation.

#### Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

**Further information: REJECTION OF LIABILITY** We have obtained the information in this data sheet from sources that we consider reliable. The accuracy of expressed or implied information cannot be guaranteed. The conditions or methods for handling, storage, use or disposal of the product are beyond our control and possibly also our knowledge. For these and other reasons, we accept no responsibility and expressly reject liability for any losses, damage or costs that may arise from handling, storage, use or disposal of the product or that may be associated therewith in any way. This Safety Data Sheet was created for this product and may only be used for this product. If the product is used as a component of another product, the information indicated in the data sheet may not apply.

This information is based on our current knowledge and should only describe the product with regard to health, safety and environmental conditions. It must therefore not be construed as a guarantee for any specific property of the product.