

Safety Data Sheet

29 CFR 1910.1200

Printing date 06/04/2024

Version number 1

Reviewed on 06/04/2024

1 Identification

Product identifier

Trade name: xDENT201-Beige

Recommended use of the chemical and restrictions on use:

Application of the substance / the preparation:

3D printing resin, NOT for human consumption.

Details of the supplier of the safety data sheet

Supplier:

Nexa3D, Inc.
1923 Eastman Ave.
STE 200, Ventura,
CA 93003
USA

Phone number: 1-805-465-9001

Email: info@nexa3d.com

Emergency telephone number:

ChemTel 1-800-255-3924 (USA),
1-813-248-0585 (international),
Contract MIS3892732

2 Hazard(s) identification

Classification of the substance or mixture

Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200).



GHS08 Health hazard

Carcinogenicity 2

H351 Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 Corrosion

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Acute Toxicity - Oral 4

H302 Harmful if swallowed.

Skin Irritation 2

H315 Causes skin irritation.

Sensitization - Skin 1

H317 May cause an allergic skin reaction.

Specific Target Organ Toxicity - Single Exposure 3

H335 May cause respiratory irritation.

Information concerning particular hazards for human and environment:

The product has to be labeled due to the calculation procedure of OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification system:

The classification is according to the latest edition of OSHA Hazard Communication Standard (29 CFR 1910.1200), and extended by company and literature data.

(Contd. on page 2)

USA

Trade name: xDENT201-Beige

(Contd. of page 1)

- Label elements
- Labelling according to OSHA Hazard Communication Standard (29 CFR 1910.1200)
- Hazard pictograms



GHS05 GHS07 GHS08

- Signal word *Danger*

- Hazard-determining components of labeling:

4-(1-oxo-2-propenyl)-morpholine
 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate
 4,4'-isopropylidenediphenyl dimethacrylate
 Oxybis(methyl-2,1-ethanediyl) diacrylate
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide

- Hazard statements

H302 Harmful if swallowed. H315
 Causes skin irritation. H318
 Causes serious eye damage.
 H317 May cause an allergic skin reaction.
 H351 Suspected of causing cancer.
 H335 May cause respiratory irritation.
 H373 May cause damage to organs through prolonged or repeated exposure.

- Precautionary statements

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.
 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 must 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/doctor.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P321 Specific treatment (see on this label).
 P314 Get medical advice/attention if you feel unwell.
 P330 Rinse mouth.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P363 Wash contaminated clothing before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- Hazards not otherwise classified (HNOC) No further relevant information available.

Trade name: xDENT201-Beige

(Contd. of page 2)

3 Composition/information on ingredients**Chemical characterization: Mixtures****Description:**

Mixture of the substances listed below with nonhazardous additions. For the wording of the listed hazard statements refer to

Composition:

CAS: 3253-39-2	4,4'-isopropylidenediphenyl dimethacrylate ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	25-55%
CAS: 5117-12-4	4-(1-oxo-2-propenyl)-morpholine ⚠ Specific Target Organ Toxicity - Repeated Exposure 2, H373; ⚠ Eye Damage 1, H318; ⚠ Acute Toxicity - Oral 4, H302; Sensitization - Skin 1, H317	15-30%
CAS: 57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate ⚠ Eye Damage 1, H318; ⚠ Skin Irritation 2, H315; Sensitization - Skin 1, H317	15-30%
CAS: 15625-89-5	2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate ⚠ Carcinogenicity 2, H351; ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Sensitization - Skin 1, H317	15-30%
CAS: 162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide ⚠ Sensitization - Skin 1A, H317	0.2-2.0%
CAS: 1317-80-2	Rutile (TiO ₂)	0.2-0.8%
CAS: 1333-86-4	Carbon black	0.02-0.05%

4 First-aid measures**Description of first aid measures****General description:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

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.

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

After swallowing: Immediately call a doctor.

Most important symptoms and effects, both acute and delayed No further relevant information available.

5 Fire-fighting measures

Suitable extinguishing agents: Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture:

During heating or in case of fire poisonous gases are produced.

Special protective equipment and precautions for firefighters

Protective equipment: Mouth respiratory protective device.

Trade name: xDENT201-Beige

(Contd. of page 3)

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

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

Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent.

Dispose contaminated material as waste according to section

13. Ensure adequate ventilation

7 Handling and storage

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care.

Prevent formation of aerosols.

For the general occupational hygienic measures refer to Section 8.

Information about protection against explosions and fires: Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

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

Information about storage in one common storage facility:

Store away from foodstuffs. Store away from

8 Exposure controls/personal protection

Components with limit values that require monitoring at the workplace:

CAS: 15625-89-5 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate (15-30%)

WEEL (USA)	Long-term value: 1 mg/m ³ Skin
------------	--

CAS: 1333-86-4 Carbon black (0.02-0.05%)

PEL (USA)	Long-term value: 3.5 mg/m ³
REL (USA)	Long-term value: 3.5* mg/m ³ *0.1 in presence of PAHs; See Pocket Guide Apps.A+C
TLV (USA)	Long-term value: 3* mg/m ³ *inhalable fraction, A3

Regulatory information

WEEL (USA): Guide to Occupational Exposure Values (AIHA

WEELs) PEL (USA): Guide to Occupational Exposure Values (OSHA

PELs) REL (USA): Guide to Occupational Exposure Values (NIOSH

RELs) TLV (USA): Guide to Occupational Exposure Values (TLV)

Additional information: The lists that were valid during the creation were used as basis.

Based on the composition shown in Section 3, the following measures are suggested for

Safety Data Sheet

29 CFR 1910.1200

Printing date 06/04/2024

Version number 1

Reviewed on 06/04/2024

Trade name: xDENT201-Beige(Contd. of page
A)**Appropriate engineering controls:**

Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing.
 Wash hands before breaks and at the end of work.
 Store protective clothing separately. Avoid contact with the skin.
 Avoid contact with the eyes and skin.
 See Section 7 for information about design of technical facilities.

Individual protection measures, such as personal protective equipment**Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Hand protection:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves:

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material:

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

Eye/face protection:

Tightly sealed goggles

9 Physical and chemical properties· **General Information**· **Appearance:**

Form: Liquid
Color: Beige
 · **Odor:** Acrylic-like
 · **Odor threshold:** Not available

· **pH-value:** Not available

· **Change in condition**

Melting point/Freezing point: Not available
Initial boiling point and boiling range: Not available

· **Flash point:** Not available

· **Flammability (solid, gas):** Not available

· **Auto-Ignition temperature:** Not available

(Contd. on page

Trade name: xDENT201-Beige

(Contd. of page
5)

· Decomposition temperature:	Not available
· Lower and upper explosion limit	
Lower:	Not available
Upper:	Not available
· Vapor pressure:	Not available
· Density:	Not available
· Relative density:	Not available
· Vapor density:	Not available
· Evaporation rate:	Not available
· Solubility in / Miscibility with Water:	Not available
· Partition coefficient (n-octanol/water):	Not available
· Viscosity:	
Dynamic:	Not available
Kinematic:	Not available
· Other information	No further relevant information available.

10 Stability and reactivity

Reactivity: No further relevant information available.

Chemical stability: No further relevant information available.

Possibility of hazardous reactions: No dangerous reactions known.

Conditions to avoid: No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

· **Acute toxicity:** Harmful if swallowed.

· **LD/LC50 values that are relevant for classification:**

CAS: 15625-89-5 2-ethyl-2-[[[(1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate

Oral	LD50	2,840 mg/kg (rat)
------	------	-------------------

CAS: 1333-86-4 Carbon black

Oral	LD50	15,400 mg/kg (rat)
------	------	--------------------

Dermal	LD50	3,000 mg/kg (rabbit)
--------	------	----------------------

Skin corrosion/irritation: Irritant to skin and mucous membranes.

Serious eye damage/irritation: Strong irritant with the danger of severe eye injury.

Respiratory or skin sensitization: Sensitization possible through skin contact.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

(Contd. on page 7)

Trade name: xDENT201-Beige

(Contd. of page 8)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

15625-89-5	2-ethyl-2-[[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate	2B
1317-80-2	Rutile (TiO ₂)	2B
1333-86-4	Carbon black	2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

Toxicity

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

· **UN-Number**

· **DOT, IMDG, IATA**

UN3082

· **UN proper shipping name**

· **DOT**

· **IMDG**

· **IATA**

Environmentally hazardous substance, liquid, n.o.s. (2-ethyl-2-[[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate)
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethyl-2-[[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate), MARINE POLLUTANT
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-ethyl-2-[[[1-oxoallyl]oxy]methyl]-1,3-propanediyl diacrylate)

(Contd. on page 8)

USA

Trade name: xDENT201-Beige

(Contd. of page
PAGE 7)

· **Transport hazard class(es)**

· **DOT, IMDG, IATA**



· **Class** 9 Miscellaneous dangerous substances and articles
 · **Label** 9

· **Packing group**

· **DOT** Not applicable
 · **IMDG, IATA** III

· **Environmental hazards:**

· **Marine pollutant:** Yes
 Yes (DOT)
 Symbol (fish and tree)
 · **Special marking (IATA):** Symbol (fish and tree)

· **Special precautions for user**

Warning: Miscellaneous dangerous substances and articles
 · **EMS Number:** F-A,S-F
 · **Stowage Category** A

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

· **Transport/Additional information:**

· **DOT**
 · **Remarks:** Special marking with the symbol (fish and tree).
 · **IMDG**
 · **Limited quantities (LQ)** 5L
 · **Excepted quantities (EQ)** Code: E1
 Maximum net quantity per inner packaging: 30 ml
 Maximum net quantity per outer packaging: 1000 ml

· **UN "Model Regulation":**

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N. O. S. (2 -ETHYL-2 -[[1 -OXOALLYL)OXY] METHYL]-1,3-PROPANEDIYL DIACRYLATE), 9, III

15 Regulatory information

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

Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Proposition 65**

· **Chemicals known to cause cancer:**

15625-89-5 | 2-ethyl-2-[[1-oxoallyl)oxy]methyl]-1,3-propanediyl diacrylate

(Contd. on page
8)

Trade name: xDENT201-Beige

(Contd. of page

1333-86-4	Carbon black	
· Chemicals known to cause reproductive toxicity for females:		
None of the ingredients is listed.		
· Chemicals known to cause reproductive toxicity for males:		
None of the ingredients is listed.		
· Chemicals known to cause developmental toxicity:		
None of the ingredients is listed.		
· New Jersey Right-to-Know List:		
1333-86-4	Carbon black	
· New Jersey Special Hazardous Substance List:		
1333-86-4	Carbon black	CA
· Pennsylvania Right-to-Know List:		
1317-80-2	Rutile (TiO ₂)	
· Pennsylvania Special Hazardous Substance List:		
None of the ingredients is listed.		
· Carcinogenicity categories		
· EPA (Environmental Protection Agency)		
None of the ingredients is listed.		
· TLV (Threshold Limit Value)		
1333-86-4	Carbon black	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
1333-86-4	Carbon black	

16 Other information

· **Relevant hazard statements**

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.

The contents and format of this SDS are in accordance with 29 CFR 1910.1200.

DISCLAIMER OF LIABILITY

The information in this SDS 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 SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

· **Date of preparation / last revision** 04/30/2024

· **Abbreviations and acronyms:**

- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association

(Contd. on page 10)

Safety Data Sheet

29 CFR 1910.1200

Printing date 06/04/2024

Version number 1

Reviewed on 06/04/2024

Trade name: xDENT201-Beige

(Contd. of page
PAGE 01)

EINECS: European Inventory of Existing Commercial Chemical
Substances ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical
Society) LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
NIOSH: National Institute for

Occupational Safety OSHA: Occupational Safety &
Health

Acute Toxicity - Oral 4: Acute toxicity –
Category 4 Skin Irritation 2: Skin corrosion/irritation –
Category 2

Eye Damage 1: Serious eye damage/eye irritation –
Category 1 Eye Irritation 2A: Serious eye damage/eye irritation –
Category 2A Sensitization - Skin 1: Skin sensitisation – Category 1
Sensitization - Skin 1A: Skin sensitisation – Category 1A

Carcinogenicity 2: Carcinogenicity – Category 2

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category
3 Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2

. *****