



Product: xDENT201-Gray
Safety data sheet according to Regulation (EC) No. 1907/2006

Version: xDENT201-Gray-EN-EU-v1
Date / Revised: 02.22.2023

1. Identification of the substance/preparation and company

1.1 Product identification

xDENT201-Gray

1.2 Recommended Use

3D printing resin, NOT for human consumption

1.3 Details of the supplier of the safety data sheet

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

Telephone: 1-805-465-9001
E-mail address: info@nexa3d.com

1.4 Emergency telephone number

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

2. Hazards Identifications

2.1 Classification of the mixture:

Classification according to Regulation (EC) No 1272/2008



GHS08 health hazard

STOT RE2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Toxicity 4
Skin Irritant 2
Skin Sensitivity 1
STOT SE 3

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of Regulation (EC) No. 1272/2008.



Classification system:

The classification is according to the latest edition of EU Regulation (EC) No. 1272/2008, and extended by company and literature data.

2.2 Label elements:

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

The product is classified and labelled according to the CLP regulation.



GHS05

GHS07

GHS08

2.3 Signal Word:

Danger

2.4 Hazard-determining components of labelling:

4-(1-oxo-2-propenyl)-morpholine

4,4'-isopropylidenediphenyl dimethacrylate

Oxybis(methyl-2,1-ethanediy) diacrylate

2,2-bis(acryloyloxymethyl)butyl acrylate

phenyl bis(2,4,6-trimethylbenzyl)-phosphine oxide

2.5 Hazard Statements:

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

2.6 Precautionary Statements (Prevention)

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
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.
P321	Specific treatment (see on this label)
P330	Rinse mouth.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

2.6 Other hazards which do not result in classification:

Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

Determination of endocrine-disrupting properties Not applicable



3. Composition/Information on Ingredients

3.2 Mixtures

Description:

Mixture of the substances listed below with nonhazardous additions. For the wording of the listed hazard statements refer to section 16.

Composition

Substance name	CAS No. / EINECS / ELINCS / Index Number	Concentration
4,4'-isopropylidenediphenyl dimethacrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	CAS: 3253-39-2 EINECS: 221-846-9	25-55%
4-(1-oxo-2-propenyl)-morpholine STOT RE 2, H373; Eye Damage 1, H318; Acute Tox. 4, H302; Skin Sensitivity 1, H317	CAS: 5117-12-4 EUNCS: 418-140-1 Index number: 613-222-00-3	15-30%
Oxybis(methyl-2, 1-ethanediyl) diacrylate Eye Dam. 1, H318; Skin Irrit. 2, H315; Skin Sens. 1, H317	CAS: 57472-68-1	15-30%
2,2-bis(acryloyloxymethyl)butyl acrylate Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317 Note: D Substance with a European Union workplace exposure limit	CAS: 15625-89-5 EINECS: 239-701-3 Index number: 607-111-00-9	15-30%
phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide Skin Sens. 1A, H317; Aquatic Chronic 4, H413	CAS: 162881-26-7 ELINCS: 423-340-5 Index number: 015-189-00-5	0.2-2.0%
Rutile (TiO ₂)	CAS: 1317-80-2 EINECS: 215-282-2	0.2-0.8%
Carbon black Substance with a European Union workplace exposure limit	CAS: 1333-86- EINECS: 215-609-9	0.02-0.05%

4. First Aid Measures

4.1 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.

Following inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

Following skin contact:

Immediately wash with water and soap and rinse thoroughly.

Following eye contact:

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

Following ingestion:

Call for doctor immediately.



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.

5. Fire-Fighting Measures

5.1 Extinguishing Media:

Use fire extinguishing methods suitable to surrounding conditions

5.2. Special hazards arising from the substance or mixture:

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

5.3 Advice for firefighters

Protective equipment: Mouth respiratory protective device.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Dilute with plenty of water.

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

6.3 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.

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.

7. Safe Handling and Storage

7.1 Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

For the general occupational hygienic measures refer to Section 8.

Information about fire – and explosion protection: Keep respiratory protective device available.

7.2 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.

Further information about storage conditions: Keep container tightly sealed.

7.3 Specific end use(s):

No further relevant information available.



8. Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

CAS: 15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate (15-30%)

MAK (Germany) vgl.Abschn.IV

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

VLEP (France) Long-term value: 3.5 mg/m³

OEL (Ireland) Long-term value: 3* mg/m³

*inhalation fraction

Regulatory information

MAK (Germany): MAK- und BAT-Liste

VLEP (France): ED 1487 05.2021

OEL (Ireland): 2021 CoP for the Safety, Health and Welfare at Work

DNELs: Not available

PNECs: Not available

Additional information: The lists valid during the making were used as a basis.

8.2 Exposure Controls:

Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure.

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.



A void contact with the skin.

A void contact with the eyes and skin.

See Section 7 for information about design of technical facilities.

8.3 Individual protection measures, such as personal protective equipment:

General Requirement	 
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Eyes/Face	 Tightly sealed goggles
Hands	 Protective Gloves. <p>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.</p> <p>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.</p> <p>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.</p>
Body Protection	Protective work clothing
Thermal Hazards	Not required for normal conditions of use.
Environmental exposure controls	Control measures must be made in accordance with Community environmental protection legislation

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties:

Physical state	Liquid
Colour	Gray
Odor	Acrylic-like
Odor threshold	Not available
Melting point/Freezing point	Not available
Boiling point or initial boiling point and boiling range	Not available



Flammability	Not available
Lower explosion limit	Not available
Upper explosion limit	Not available
Flash point	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
pH	Not available
Kinematic viscosity	Not available
Dynamic viscosity	Not available
Water solubility	Not available
Partition coefficient n-octanol/water (log value):	Not available
Vapor pressure	Not available
Density	Not available
Relative Density	Not available
Relative Vapor Density	Not available
Particle Characteristics	Not available

9.2 Other Information:

Form: Liquid

9.2 Information with regard to physical hazard classes:

Explosives	Not applicable
Flammable gases	Not applicable
Aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Not applicable



Flammable solids	Not applicable
Self-reactive substances and mixtures	Not applicable
Pyrophoric liquids	Not applicable
Pyrophoric solids	Not applicable
Self-heating substances and mixtures	Not applicable
Substances and mixtures, which emit flammable gases in contact with water	Not applicable
Oxidizing liquids	Not applicable
Oxidizing solids	Not applicable
Organic peroxides	Not applicable
Corrosive to metals	Not applicable
Desensitized explosives	Not applicable
Other safety characteristics	Not available

10. Stability and Reactivity

10.1 Reactivity:

No further relevant information available.

10.2 Chemical stability:

No further relevant information available.

10.3 Possibility of hazardous reactions:

No dangerous reactions known.

10.4 Conditions to avoid:

No further relevant information available.

10.5 Incompatible materials:

No further relevant information available.

10.6 Hazardous decomposition products:

No dangerous decomposition products known.

11. Toxicological Information

Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.1 Acute toxicity:

Harmful if swallowed

LD/LC50 values relevant for classification:

CAS: 15625-89-5 2,2-bis(acryloyloxymethyl)butyl acrylate

Oral LD50 2,840 mg/kg (rat)

CAS: 1333-86-4 Carbon black

Oral LD50 10,000 mg/kg (rat)

**11.2 Skin corrosion/irritation:**

Causes skin irritation

11.3 Serious eye damage/irritation:

Causes serious eye irritation

11.4 Respiratory or skin sensitization:

May cause an allergic skin reaction.

11.5 Germ cell mutagenicity:

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

11.6 Carcinogenicity:

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

11.7 Reproductive toxicity:

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

11.8 STOT-single exposure:

May cause respiratory irritation.

11.9 STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

11.10 Aspiration hazard:

Based on available data, the classification criteria are not met

11.11 Information on other hazards:

Endocrine disrupting properties: None of the ingredients listed.

Other information: No further relevant information available.

12. Ecological Information

12.1 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.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment:

PBT and vPVB evaluation results: Not applicable

12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects:

No further relevant information available.



13. Disposal Considerations

13.1 Waste treatment methods:

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

13.2 Handling method for uncleaned packaging

Disposal must be made according to official regulations.

14. Transport Information

14.1 UN number or ID number ADRIRIDIADN, IMDG, IATA	Not applicable
14.2 UN proper shipping name ADRIRIDIADN, IMDG, IATA	Not applicable
14.3 Transport hazard class(es) ADRIRIDIADN, IMDG, IATA · -Class · -Label	Not applicable
· 14.4 Packing group ADRIRIDIADN, IMDG, IATA	Not applicable
· 14.5 Environmental hazards: Marine pollutant:	No
14.6 Special precautions for user: Hazard identification number (Kemler code):	Not applicable
14.7 Maritime transport in bulk according to IMO instruments	Not applicable
14.8 Transport/Additional information:	Not applicable
· UN "Model Regulation":	Not applicable

15. Regulatory Information

15.1 Safety, health and environmental regulations / laws for pure substances or mixtures

Directive 2012/18/EU

- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category** Not applicable
- **Qualifying quantity (tons) for the application of lower-tier requirements** Not applicable
- **Qualifying quantity (tons) for the application of upper-tier requirements** Not applicable

REGULATION (EU) 2019/1021 on persistent organic pollutants (POP)

None of the ingredients is listed.

Regulation (EU) No 649/2012

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

Regulation (EC) No 273/2004 on drug precursors



None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

REGULATION (EC) No 1005/2009 on substances that deplete the ozone layer - ANNEX I (Ozone- depleting potential)

None of the ingredients is listed.

Other regulations, limitations and prohibitive regulations

SVHC Candidate List of REACH Regulation Annex XIV Authorization (1711/2023)

None of the ingredients is listed

REACH Regulation Annex XVII Restriction (13/12/2021) See Section 16 for information about restriction of use.

None of the ingredients is listed

REACH Regulation Annex XIV Authorization List (8/4/2022)

None of the ingredients is listed

15.2 Safety assessment of chemical substances

A Chemical Safety Assessment has not been carried out.

16. Other Information

Recommended restriction of use : Not applicable

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.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H413 May cause long lasting harmful effects to aquatic life.

Classification according to Regulation (EC) No. 1272/2008

<p>Acute toxicity - oral Skin corrosion/irritation Serious eye damage/eye irritation Skin Sensitization Specific target organ toxicity (single exposure) Specific target organ toxicity (repeated exposure)</p>	<p>The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No. 1272/2008.</p>
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The contents and format of this SDS are in accordance with Regulation (EC) No 1907/2006, 1272/2008 and Regulation (EU) No 2020/878.

DISCLAIMER OF LIABILITY

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· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDC: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

CHS: Globally Harmonised System of Classification and Labelling of Chemicals 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) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Skin Sens. 1: Skin sensitisation - Category 1

Skin Sens. JA: Skin sensitisation- Category JA

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure)- Category 2

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard- Category 4

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