



SAFETY DATA SHEET

Dimengel 20 - FR

Page 1 of 9

Date of issue: 04/08/2019

Date of revision: 04/08/2019

Version no.: 1

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

1.1 Product identifier

Product name: Dimengel 20 - FR

Product description: Photo curable resin

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

Common uses: Printing/additive manufacturing.

1.3 Details of the supplier of the safety data sheet

Massivit 3D Printing Technologies LTD

11 Pesakh Lev Lod 7129361

Tel: +972-8-6519486

Fax: +972-8-6900758

E-mail address of person responsible for this SDS: Shai.Garty@Massivit.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation): +972-8-6519486

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to GHS:

Skin Irrit. 2 H315

Skin Sens. 1 H317

Eye Dam. 1 H318

STOT SE 3 H335

Repr. 2 H361

Aquatic Acute 2 H401

Classification according to 29 CFR 1910.1200 (OSHA HCS):

Skin Irrit. 2 H315

Skin Sens. 1 H317

Eye Dam. 1 H318

STOT SE 3 H335

Repr. 2 H361

Aquatic Acute 2 H401

Classification in accordance to Regulation (EC) No. 1272/2008 (CLP):

Skin Irrit. 2 H315

Skin Sens. 1 H317

Eye Dam. 1 H318

STOT SE 3 H335

See section 16 for the full text of the H-statements declared above.

SAFETY DATA SHEET

Dimengel 20 - FR

Page 2 of 9

2.2 Label elements

Labelling according to GHS:

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H361: Suspected of damaging fertility or the unborn child.
H401 Toxic to aquatic life.

Precautionary Statement(s):

P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313: If exposed or concerned: Get medical advice/attention.

Labelling according to 29 CFR 1910.1200 (OSHA HCS)

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H361: Suspected of damaging fertility or the unborn child.
H401 Toxic to aquatic life.

Precautionary Statement(s):

P202: Do not handle until all safety precautions have been read and understood.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+313: If exposed or concerned: Get medical advice/attention.

SAFETY DATA SHEET

Dimengel 20 - FR

Page 3 of 9

Labelling in accordance with Regulation 1272/2008 (CLP)

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s):

H315: Causes skin irritation.
 H317: May cause an allergic skin reaction.
 H318: Causes serious eye damage.
 H335: May cause respiratory irritation.

Precautionary Statement(s):

P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
 P264: Wash hands thoroughly after handling.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

2.3 Other hazard

Not available

SECTION 3: Composition / information on ingredients

3.2 Mixtures:

Substance name	Identifiers	%	CLP Classification	GHS Classification	OSHA HCS
Oxybis(methyl-2,1-ethanediyl) diacrylate (DPGDA)	CAS number: 57472-68-1 EC number : 260-754-3	20-40	Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317	Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317 Aquatic Acute 2 H401 Acute Tox. 5 H303	Skin Irrit. 2 H315 Eye Dam. 1 H318 Skin Sens. 1 H317 Aquatic Acute 2 H401
Polyether urethane acrylate	CAS number: N/A EC number : N/A	20-40	Skin Irrit. 2 H315 STOT SE 3 H335	Skin Irrit. 2 H315 Eye Irrit. 2B H320 STOT SE 3 H335	Skin Irrit. 2 H315 Eye Irrit. 2B H320 STOT SE 3 H335
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	CAS number: 75980-60-8 EC number : 278-355-8	0.25-2	Repr. 2 H361f Aquatic Chronic 3 H412	Repr. 2 H361f Aquatic Chronic 3 H412	Repr. 2 H361f Aquatic Chronic 3 H412

See section 16 for the full text of the H-statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8.



SAFETY DATA SHEET

Dimengel 20 - FR

Page 4 of 9

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eyes contact:** In case of contact with eyes, rinse immediately with plenty of soap and water for at least 15 minutes. Get medical attention.
- Skin contact:** Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes. Get medical attention.
- Inhalation:** Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.
- Ingestion:** **Do not induce vomiting.** If victim is conscious, wash mouth thoroughly with water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 (Label elements) and/or section 11 (Toxicological information) for the most important known symptoms and effects.

4.3 Indication of any immediate medical attention and special treatment needed

Not available

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable: Foam, carbon dioxide, dry chemical.

Not suitable: Solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic fumes.

5.3 Advice for firefighters

Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode. Cool containers exposed to flame with water spray until well after fire is out.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area of spill.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

See Section 1 for emergency contact information.



SAFETY DATA SHEET

Dimengel 20 - FR

Page 5 of 9

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapors, spray, mist or gas. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures. Avoid release to the environment.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Keep container tightly closed in a dry, cool and well-ventilated place. Protect from light, heat, flames and sparks. Keep away from amines, strong oxidizing agents, acids, bases, oxygen scavengers. Extended storage at temperatures not exceeding 32°C. Avoid moisture.

7.3 Specific end use(s): N/A

SECTION 8: Exposure control/personal protection

8.1 Control parameters

Occupational exposure limits values: N/A

8.2 Exposure controls

Engineering measures

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Person Protective measures

Respiratory protection: Suitable respirator. Be sure to use an approved/certified equipment or equivalent equipment. Wear appropriate respirator when ventilation is inadequate.

Hand protection: Wear protective gloves to prevent skin exposure.

Eye protection: Wear protective safety glasses.

Skin protection: Wear appropriate long-sleeved clothing to minimize skin contact.

Environmental exposure controls: Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: White - yellow liquid

Odour: N/A

Odour threshold: N/A

pH: N/A

Melting point/Freezing point: N/A

Initial boiling point/boiling range: N/A

Flash point: N/A

Evaporation rate: N/A

Flammability: N/A

Upper/lower flammability or explosive limits: N/A

Vapor pressure: N/A

Vapor density: N/A



SAFETY DATA SHEET

Dimengel 20 - FR

Page 6 of 9

Relative density: 1.10 gr/cm³
Solubility(ies): N/A
Partition coefficient Octanol/Water: N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A
Viscosity: 90,000 - 140,000 Cp
Explosive properties: N/A
Oxidizing properties: N/A

9.2 Other information

Tensile strength: 12.5-20.0 MPa
Elongation at break: 4.2-6.0%
Modulus of elasticity tensile: 1,150 - 1,450 MPa
Impact: 2.0 - 2.2 kJ/m²
HDT: 52-53°C

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available

10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7.

10.3 Possibility of hazardous reactions

Hazardous reactions are not expected, under normal conditions of storage and use.
DPGDA is a difunctional acrylate monomer which can be polymerized by free radicals.

10.4 Conditions to avoid

Light. Moisture. Heat, flames and sparks.

10.5 Incompatible materials

Amines. Strong oxidizing agents. Strong acids. Strong bases. Oxygen scavengers.

10.6 Hazardous decomposition products

Other decomposition products: not available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Product/ingredient name	Test	Species	Dose
Oxybis(methyl-2,1-ethanediyl) diacrylate (DPGDA)	LD50, Oral	Rat	4600 mg/kg
	LD50, Administration onto the skin	Rabbit	>2000 mg/kg
Diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide	LD50, Oral	Rat	>5000 mg/kg

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/irritation: Causes serious eye damage.

Respiratory or skin sensitization: May cause an allergic skin reaction.



SAFETY DATA SHEET

Dimengel 20 - FR

Page 7 of 9

Germ cell mutagenicity: Not available

Carcinogenicity: Not available

Reproductive toxicity: Suspected of damaging fertility.

Specific target organ toxicity (single exposure): May cause respiratory irritation.

Specific target organ toxicity (repeated exposure): Not available

Aspiration hazard: Not available

SECTION 12: Ecological information

12.1 Toxicity

Not available

12.2 Persistence and Degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

Not available

12.6 Other adverse effects

Toxic to aquatic life.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Packing

Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information

14.1 Un number

ADR/RID: -

IMDG: -

IATA: -

DOT (US): -

14.2 UN proper shipping name

ADR/RID: Not regulated

IMDG: Not regulated

IATA: Not regulated

DOT (US): Not regulated

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

DOT



SAFETY DATA SHEET

Dimengel 20 - FR

Page 8 of 9

(US): -

14.4 Packing group

ADR/RID: -

IMDG: -

IATA: -

DOT (US): -

14.5 Environmental hazard

Marine pollutant: yes

14.6 Special precautions for user

N/A

14.7 Transport to bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

SECTION 15: Regulatory information

This SDS complies with the following requirements of:

EU Regulation (EC) No.1907/2006 (REACH) including amendments

Regulation (EC) No.1272/2008 (CLP)

29 CFR 1910.1200 (OSHA HCS)

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

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

California Prop. 65 Components

This product contains no chemical known to the State of California to cause birth defects or other reproductive harm.

TSCA inventory

The substances in this product are included on or exempted from the TSCA inventory.

15.2 Chemical safety assessment

Not available

SECTION 16: Other information

Full text of Hazards Statements referred to in sections 2 and 3:

Skin Irrit. - Skin irritation

Skin Sens. - Skin sensitization

Eye Irrit. - Eye irritation

Eye Dam. - Serious eye damage

STOT SE - Specific target organ toxicity — single exposure

Repr. - Reproductive toxicity

Aquatic Acute - Hazardous to the aquatic environment

Aquatic Chronic - Hazardous to the aquatic environment

Acute Tox. - Acute toxicity

H303: May be harmful if swallowed.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H320: Causes eye irritation.

H335: May cause respiratory irritation.

H361: Suspected of damaging fertility or the unborn child.

H361f: Suspected of damaging fertility.

H401 Toxic to aquatic life.



SAFETY DATA SHEET

Dimengel 20 - FR

Page 9 of 9

H412: Harmful to aquatic life with long lasting effects.

Training advice: Before using/handling the product one must read carefully present SDS.

Key Legend Information:

CAS- Chemical Abstract Service

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

NTP- National Toxicology program

IARC- International Agency for Research on Cancer

N/A- Not available

H-statements- Hazard statements

TLV- Threshold Limit Value

TWA- Time-weighted average

STEL- Short-Term Exposure Limit

CSA- Chemical safety assessment

Date of issue: 04/08/2019

Version no.: 1

This SDS and the information presented within it are based on data held by Hazmat, Ltd. and the current legislation as at the date stated on it. Anyone wishing to make use of the information presented within this document is obligated to update its instructions from time to time. The information presented in the SDS is based on the manufacturer's data and/ or the supplier of the substance/ product which is the subject of this SDS, as provided to Hazmat, Ltd. by the client and in the absence of such data the information was taken from a variety of literary professional sources. The information presented in this SDS is appropriate for the uses specified in paragraph 1 of the SDS only. It is emphasized, that the information specified in this SDS does not replace specific safety instructions for uses of the substance/ product which is the subject of this SDS, which were not explicitly specified in the SDS. Individual professional consultation should be received, and specific safety instructions should be read prior to any mixing of the substance which is the subject of this SDS with other substances and the stated in this SDS does not cover the entire safety instructions relating to mixing the substance which is the subject of this SDS with other substances and does not constitute a replacement to obtaining specific consultation as stated. Hazmat, Ltd. is not liable to any damage and/ or any loss, financial or otherwise, and will not accept responsibility, directly or indirectly, to damages of any kind, including as a result of failure to update and/ or misunderstanding and/ or misuse/ misinterpretation of the information within the document. Any question arising regarding the use of the SDS should be directed to Hazmat, Ltd., 23 Ha' Melacha st. Rosh Ha' Ayin, Tel: +972-3-9037141, fax: +972-3-9032717, email: hazmat@hazmat.co.il.

The information detailed in this SDS was prepared by Hazmat, Ltd. for the orderer of the SDS and is for their use only. The contents of this SDS is the property of Hazmat, Ltd. only and it is strictly prohibited to copy, modify, edit, distribute, sell or take any other action which involves infringement of Hazmat's copyrights without the prior written consent of Hazmat, Ltd.