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Complying with 1907/2006/EEC Regulation of 18 December 2006 ("REACH Regulation") and REGULATION (EC) No 1272/2008 (CLP)

Section 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name: Dimengel 100 base

Product description: Photo curable resin

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

Printing/additive manufacturing.

1.3 Details of the supplier of the safety data sheet

Massivit 3D Printing Technologies LTD

Pesach Lev 11 Lod 7129361

Tel: 972-86519486

E-mail address of person responsible for this SDS: nataly.lisitsin@massivit.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation): 972-86519486

Section 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Product name	GHS/CLP Classification
Dimengel 100 base	STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 2 H411

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

Product name	EU Classification
base 100 Dimengel	Xi; R36/37/38 N; R51/53

2.2 Label elements

Labeling in accordance with Regulation 1272/2008 (CLP)

Hazard pictogram(s):



Signal word: Warning


Hazard statement(s):

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H411: Toxic to aquatic life with long lasting effects.

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Precautionary Statement(s):

P264: Wash hands thoroughly after handling.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P273: Avoid release to the environment.

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

Labelling in accordance with 1999/45 (DPD)

Hazard symbol(s)

Xi- Irritant



N- Dangerous for the environment



Risk phrase(s):

R36/37/38: Irritating to eyes, respiratory system and skin.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrase(s):

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28: After contact with skin, wash immediately with plenty of water and soap.

S61: Avoid release to the environment. Refer to special instructions/safety data sheet.

2.3 Other hazard

None

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS


Mixture:

Ingredient name	Identifiers	%	EU Classification	CLP/GHS Classification
Isobornyl acrylate	CAS number: 5888-33-5 EC number: 227-561-6	25-40	Xi; R36/37/38 N; R51/53	STOT SE 3 H335 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
Tricyclodecane dimethanol diacrylate	CAS number: 42594-17-2 EC number: 255-901-3	10-25	Xi; R38	Skin Irrit. 2 H315
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	CAS number: 75980-60-8 EC number: 278-355-8	0.5-1	Repr. Cat. 3; R62 N; R51/53	Repr. 2 H361f Aquatic Chronic 2 H411

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.

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

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Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

- Eyes contact:** In case of contact with eyes rinse thoroughly with plenty of water for at least 15 minutes, and seek medical advice.
- Skin contact:** In case of contact with skin wash off immediately with soap and plenty of water for at least 10 minutes, and seek medical advice.
- Inhalation:** Remove from exposure, lie down. 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 plenty of water and give water to drink. Get medical attention immediately. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

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

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote, contact Poisons Information Center. All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable: Use CO₂, dry chemical, or foam.

Not suitable: Do not use a 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.

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 later disposal according to local / national regulations.

6.4 Reference to other sections

See Section 1 for emergency contact information.

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Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Wash thoroughly after handling.

Hygiene Measures: 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.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Keep container tightly closed in a dry and well-ventilated place. Keep away from heat. Keep away from direct sunlight or strong incandescent light. Keep away from amines, oxidizing agents, reducing agents, acids, bases, oxygen scavengers and thiosulfates.

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 approved/certified or equivalent equipment. Wear appropriate respirator when ventilation is inadequate.

Eye/face protection: Wear protective safety glasses or goggles.

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

Hand protection: Wear protective disposable gloves to prevent skin exposure.

Environmental exposure controls: N/A

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance: transparent-white thick liquid-gel

Odour: characteristic

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

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Upper/lower flammability or explosive limits: N/A
Vapor pressure: N/A
Vapor density (air=1): N/A
Relative Density: N/A
Solubility(ies): N/A
Partition coefficient Octanol/Water: N/A
Auto-ignition temperature: N/A
Decomposition temperature: N/A
Viscosity: N/A
Explosive properties: N/A
Oxidizing properties: N/A

9.2 Other information

N/A

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients

10.2 Chemical stability

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

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

Heat, direct sunlight or strong incandescent light.

10.5 Incompatible materials

Amines, oxidizing agents, reducing agents, acids, bases, oxygen scavengers, thiosulfates.

10.6 Hazardous decomposition products

Not available

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects


Acute toxicity:

Product/ingredient name	Test	Species	Dose
Isobornyl acrylate	LD50, Oral	Rat	4890 mg/kg
	LD50, Administration onto the skin	Rabbit	>5000 mg/kg
Amorphous fumed silica	LD50, Oral	Rat	3160 mg/kg
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	LD50, Oral	Rat	>5000 mg/kg

Irritation: N/A

Corrosivity: N/A

Sensitization: N/A

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Repeated dose toxicity: N/A

Carcinogenicity: N/A

Mutagenicity: N/A

Toxicity for reproduction: N/A

Other information: N/A

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Substance name	Toxicity to fish
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	LC50/48h (Oryzias latipes) 6.53 mg/l

12.2 Persistence and Degradability

N/A

12.3 Bioaccumulative potential

N/A

12.4 Mobility in soil

N/A

12.5 Results of PBT and vPvB assessment

N/A

12.6 Other adverse effects

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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: 3082


IMDG: 3082

IATA: 3082

14.2 Proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Isobornyl acrylate)

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IATA: Environmentally hazardous substance, liquid, n.o.s. (Isobornyl acrylate)

14.3 Transport hazard class(es)

ADR/RID: 9

IMDG: 9

IATA: 9

14.4 Packing group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazard

Marine pollutant: yes

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

14.7 Transport to bulk according to Annex II of MARPOL 79/78 and the IBC Code

Not available

Section 15: REGULATORY INFORMATION

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

EU Directives 67/548/EEC and 1999/45/EC (including amendments)

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

15.2 Chemical safety assessment

N/A

Section 16: OTHER INFORMATION

Full text of R-phrases referred to in section 3:

Xi - Irritant

N - Dangerous to the environment

Repr. - Toxic for reproduction

R62: Possible risk of impaired fertility.

R36/37/38: Irritating to eyes, respiratory system and skin.

R38: Irritating to skin.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of Hazards Statements referred to in section 3:

Eye Irrit. - Serious eye irritation

Skin Irrit. - Skin irritation

STOT SE - Specific target organ toxicity — single exposure

Repr. - Reproductive toxicity

Aquatic Chronic - Hazardous to the aquatic environment


H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H315: Causes skin irritation.

H361f: Suspected of damaging fertility.

H411: Toxic to aquatic life with long lasting effects.

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

Recommended restriction: N/A

Key Legend Information:

ACGIH- American Conference of Governmental Industrial Hygienists

OSHA- Occupational Safety and Health Administration

NTP- National Toxicology program

IARC- International Agency for Research on Cancer

ND- Not Determined

N/A- Not available

R-phrases - Risk phrases

S-phrases - Safety phrases

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Version no. 1.1 (updated name of product and logo)

To the best of our knowledge the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.