



## **SAFETY DATA SHEET**

Issuing Date 09-Sep-2021 Revision Date 09-Sep-2021 Revision Number 1

## 1. Identification

Product identifier

Product Name Origin DM100™

Other means of identification

Product Code(s) SDS-06421 EN A

PN (Part Number) ORIG-00043

Recommended use of the chemical and restrictions on use

Recommended Use resin; Printing inks; Chemical

Details of the supplier of the safety data sheet

**Manufacturer Address** 

Stratasys Corporate headquarters United States 9600 West 76th Street Suite #108 Eden Prairie, MN 55344 United States

Local: +1 952-294-3900 Phone: +1 952-937-3000

Emergency telephone number

Emergency Telephone +1 215 207 0061 - Americas - Multi lingual response

E-mail address info@Stratasys.com

## 2. Hazards Identification

## According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

## Classification of the product

Skin Corr./Irrit. 2 Skin corrosion/irritation

Eye Dam./Irrit. 2A Serious eye damage/eye irritation

Skin Sens.

Repr.

2 (fertility)

Reproductive toxicity

Reproductive toxicity

Reproductive toxicity

Aquatic Acute 3 Hazardous to the aquatic environment - acute Aquatic Chronic 2 Hazardous to the aquatic environment - chronic

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#### Label elements

#### Pictogram:



# Signal Word: Warning

Hazard Statement:

H319 Causes serious eye irritation.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility. Suspected of damaging the unborn

child.

H402 Harmful to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280 Wear protective gloves, protective clothing and eye protection or face

protection.

P261 Avoid breathing mist or vapour or spray. P273 Avoid release to the environment.

P280 Wear eye protection.

P201 Obtain special instructions before use.

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

understood.

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

P264 Wash contaminated body parts thoroughly after handling.

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.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P333 + P313 If skin irritation or rash occurs: Get medical attention.
P308 + P313 IF exposed or concerned: Get medical attention.
P332 + P313 If skin irritation occurs: Get medical attention.

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

P391 Collect spillage.

P337 + P313 If eye irritation persists: Get medical attention.

Precautionary Statements (Storage):

P405 Store locked up.

Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

## Hazards not otherwise classified

No applicable information available.

## 3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

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#### Proprietary acrylate

CAS Number: Trade Secret Content (W/W): >= 1.0 - < 3.0% Synonym: No data available.

#### diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide

CAS Number: 75980-60-8 Content (W/W): >= 1.0 - < 3.0%

Synonym: Diphenyl(2,4,6-trimethylbenzoyl)phosphineoxide

## Proprietary ester compound

CAS Number: Trade Secret Content (W/W): >= 20.0 - < 25.0% Synonym: No data available.

#### Proprietary acrylate

CAS Number: Trade Secret Content (W/W): >= 25.0 - < 50.0% Synonym: No data available.

## 4. First-Aid Measures

## **Description of first aid measures**

#### General advice:

Remove contaminated clothing.

#### If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

#### If on skin:

Wash thoroughly with soap and water

## If in eyes:

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

#### If swallowed:

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.

Information on: diphenyl(2,4,6,-trimethylbenzoyl)phosphine oxide

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.

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Hazards: No hazard is expected under intended use and appropriate handling.

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

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#### Note to physician

Treatment:

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

## 5. Fire-Fighting Measures

## **Extinguishing media**

Suitable extinguishing media: water spray, dry powder, foam

Unsuitable extinguishing media for safety reasons: water jet

## Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours

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

## Advice for fire-fighters

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

#### 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.

## 6. Accidental release measures

## Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Keep people away and stay on the upwind side.

#### **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

#### Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

## 7. Handling and Storage

## Precautions for safe handling

Keep away from sources of ignition - No smoking.

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

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Further information on storage conditions: Protect against heat. Protect from the effects of light. Avoid direct sunlight. Ensure adequate inhibitor and dissolved oxygen level. The stabilizer is only effective in the presence of oxygen. Maintain contact with atmosphere containing 5 - 21% oxygen. Protect from temperatures below: 0 °C

Protect from temperatures above: 40 °C

## 8. Exposure Controls/Personal Protection

No substance specific occupational exposure limits known.

## Advice on system design:

Provide local exhaust ventilation to control dusts/vapours.

#### Personal protective equipment

#### Respiratory protection:

Respiratory protection may not be required under normal operating conditions if adequate ventilation is provided. Observe OSHA regulations for workplace hazard assessment and equipment selection (29 CFR 1910.132). Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator as needed. Observe OSHA regulations for respirator use (29 CFR 1910.134).

#### Hand protection:

Chemical resistant protective gloves (EN ISO 374-1), Suitable materials for short-term contact (recommended: At least protective index 2, corresponding > 30 minutes of permeation time according to EN ISO 374-1), butyl rubber (butyl) - 0.7 mm coating thickness, nitrile rubber (NBR) - 0.4 mm coating thickness, Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing., Manufacturer's directions for use should be observed because of great diversity of types.

#### Eve protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### **Body protection:**

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

#### General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin, eyes and clothing. Avoid inhalation. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Wash contaminated clothing before reuse.

## 9. Physical and Chemical Properties

Form: liquid
Odour: acrylic-like
Odour threshold: not determined
Colour: slightly off white
pH value: of low solubility
Melting temperature: not determined

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boiling temperature: > 100 °C

(1,013 hPa)

The statements are based on the

properties of the individual

components.

Flash point: > 94 °C

Flammability: not highly flammable Lower explosion limit: For liquids not relevant

For liquids not relevant for classification and labelling.

Upper explosion limit: For liquids not relevant for

classification and labelling.

Autoignition: not determined Vapour pressure: not determined Density: 1.1 g/cm3

(20°C)

Relative density: approx. 1.1

(20°C)

Vapour density: not determined

Partitioning coefficient n- not applicable for mixtures

octanol/water (log Pow):

Self-ignition not self-igniting

temperature:

Thermal decomposition: 207.39 °C, 204.14 kJ/kg

Viscosity, dynamic: 570 mPa.s

(30 °C)

Solubility in water: sparingly soluble

Solubility (qualitative): soluble

solvent(s): organic solvents,

Evaporation rate: not determined, Value can be

approximated from Henry's Law Constant or vapor pressure.

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

## 10. Stability and Reactivity

## Reactivity

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

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

#### **Chemical stability**

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

#### Possibility of hazardous reactions

The product is stabilized against spontaneous polymerization prior to despatch.

The product can polymerize if the shelf life or storage temperature are greatly exceeded. Heat develops during polymerization. Reacts with peroxides and other radical components.

#### Conditions to avoid

See SDS section 7 - Handling and storage.

## Incompatible materials

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#### free radical initiators

## **Hazardous decomposition products**

#### Decomposition products:

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

Thermal decomposition: 207.39 °C, 4 K/min

## 11. Toxicological information

## Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

## **Acute Toxicity/Effects**

#### Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

#### <u>Ora</u>

Type of value: ATE Value: > 5,000 mg/kg

#### <u>Inhalation</u>

Type of value: ATE Value: > 20 mg/l Determined for vapor

Type of value: ATE Value: > 5 mg/l Determined for mist

#### Dermal

Type of value: ATE Value: > 5,000 mg/kg

#### Assessment other acute effects

## Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

#### Irritation / corrosion

Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation.

#### <u>Sensitization</u>

Assessment of sensitization: Sensitization after skin contact possible.

#### **Aspiration Hazard**

No aspiration hazard expected.

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## **Chronic Toxicity/Effects**

#### Repeated dose toxicity

Assessment of repeated dose toxicity: Based on available data, the classification criteria are not met.

#### Genetic toxicity

Assessment of mutagenicity: Based on the ingredients, there is no suspicion of a mutagenic effect.

#### Carcinogenicity

Assessment of carcinogenicity: The whole of the information assessable provides no indication of a carcinogenic effect.

#### Information on: Titanium dioxide

Assessment of carcinogenicity: IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Tumors were only observed in rats after chronic inhalative exposure to high concentrations which caused sustained lung inflammation. In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. Dermal exposure is not expected to be carcinogenic.

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#### Reproductive toxicity

Assessment of reproduction toxicity: Possible risk of impaired fertility. The product has not been tested. The statement has been derived from the properties of the individual components.

#### **Teratogenicity**

Assessment of teratogenicity: Possible risk of harm to the unborn child. The product has not been tested. The statement has been derived from the properties of the individual components.

## Other Information

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

## 12. Ecological Information

## **Toxicity**

Aquatic toxicity

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. May cause long-term adverse effects in the aquatic environment. The product has not been tested. The statement has been derived from the properties of the individual components.

## Persistence and degradability

Assessment biodegradation and elimination (H2O)

Not readily biodegradable (by OECD criteria).

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

## Bioaccumulative potential

Assessment bioaccumulation potential

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The product has not been tested.

## Mobility in soil

#### Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.

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

Adsorption to solid soil phase is not expected.

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

#### 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:

Do not discharge product into the environment without control.

## 13. Disposal considerations

#### Waste disposal of substance:

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

## Container disposal:

Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Dispose of in accordance with national, state and local regulations.

## 14. Transport Information

#### Land transport

**USDOT** 

Not classified as a dangerous good under transport regulations

Sea transport

**IMDG** 

Hazard class: 9
Packing group: III
ID number: UN 3082

Hazard label: 9, EHSM Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-

DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III

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ID number: UN 3082 Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S. (contains 7,7,9(OR 7,9,9)-TRIMETHYL-4,13-DIOXO-3,14-

DIOXA-5,12-DIAZAHEXADECANE-1,16-DIYL BISMETHACRYLATE, DIPHENYL(2,4,6-TRIMETHYLBENZOYL)PHOSPHINE OXIDE)



## 15. Regulatory Information

#### **Federal Regulations**

Registration status:

Chemical TSCA, US released / listed

**EPCRA 311/312 (Hazard categories):** Refer to SDS section 2 for GHS hazard classes applicable for this product.

#### Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

**WARNING:** This product can expose you to chemicals including TITANIUM DIOXIDE (AIRBORNE, UNBOUND PARTICLES OF RESPIRABLE SIZE), which is known to the State of California to cause cancer, and METHANOL, which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

#### **NFPA Hazard codes:**

Health: 2 Fire: 1 Reactivity: 0 Special:

#### 16. Other Information

NFPAHealth hazards0Flammability0Instability0Special hazards-HMISHealth hazards0Flammability0Physical hazards0Personal protectionX

Revision Date 13-Oct-2

Revision Note No information available.

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**End of Safety Data Sheet** 

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