

**Material Name: OBJET VEROCYAN RGD841** 

In Compliance with Regulation (EC) 1907/2006 (REACH) as Amended

MSDS ID: DOC-06154 B

# \* \* \*Section 1 - IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING\* \* \*

1.1 Product Identifier:

Material Name: VEROCYAN RGD841

**Chemical Family** 

acrylic compounds

Substance Registration Number(s)

The components are either registered, pre-registered or not subject to REACH.

Substance Registration Number(s): 01-0000016491-73-XXXX (CAS#, 5117-12-4)

## 1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

#### **Identified Uses**

This product is a cartridge containing ink. Under normal conditions of use, the substance is released from a cartridge only inside an appropriate printing system, and therefore, exposure is limited.

#### **Uses Advised Against**

None known.

#### 1.3 Details of the supplier of the safety data sheet

Stratasys GmbH Phone: +49 722 97 77 20

Airport Boulevard B 120

D-77836 Rheinmünster, Germany Emergency # +49 722 97772280

#### **Email Address**

info@stratasys.com; www.stratasys.com

#### 1.4 Emergency Telephone Number

+49 722 97772280 : Europe (Multi-lingual Response)

+49 722 97772281 : Global (English language response)

+1 978 495 5580 : USA (Multi-lingual Response)

+85 2 975 70887 : Asia Pacific (Multi-lingual Response)

+61 2 8011 4763 : Australia (Multi-lingual Response)

+86 15626070595: China (Chinese language response)

## \* \* \*Section 2 - HAZARDS IDENTIFICATION\* \* \*

#### 2.1 Classification of the Substance or Mixture

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

Acute Toxicity (Oral), Category 4

Eye Damage / Irritation, Category 1

Skin Corrosion / Irritation, Category 2

Skin sensitizer, Category 1

Specific Target Organ Toxicity - Single Exposure, Category 3 (respiratory system)

Specific Target Organ Toxicity - Repeated Exposure, Category 2

Hazardous to the Aquatic Environment - Chronic Hazard, Category 2

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#### 2.2 Label Elements

Labeling according to Regulation (EC) 1272/2008/EC:

#### Symbol(s)



### Signal Word

DANGER

## Hazard Statement(s)

H302 Harmful if swallowed.

H318 Causes serious eye damage

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H335 May cause respiratory irritation

H373 May cause damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

#### **Precautionary Statement(s)**

## Prevention

**P271** Use only outdoors or in a well-ventilated area. **P280** Wear protective gloves/protective clothing/eye protection/face protection.

## 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. **P310** Immediately call a POISON CENTER or doctor/physician.

#### Storage

**P405** Store locked up.

#### Disposal

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

#### 2.3 Other Hazards

None known.

## \* \* \*Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS\* \* \*

CAS	Component	1272/2008	Percent
EC No	Synonyms	(CLP)	
Registration No			
	Acrylic monomer	Acute Tox. 4	<30
		(Oral)	
		Eye Dam. 1	
		Skin Sens. 1	
		STOT RE 2	



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5888-33-5 227-561-6	Exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acrylate	Skin Irrit. 2 Eye Irrit. 2 STOT SE 3 Aquatic Chronic 2	<25
	Acrylic oligomer	Skin Sens. 1	<15
	Photo Initiator	Skin Sens. 1 Aquatic Chronic 4	<2
52408-84-1 500-114-5 	Acrylic acid ester	Eye Irrit. 2 Skin Sens. 1	<0.3
13463-67-7 236-675-5 	Titanium dioxide		<0.8

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108-65-6 203-603-9 	Propylene glycol monomethyl ether acetate	R:10	Flam. Liq. 3	0.01-0.1
7664-38-2 231-633-2 	Phosphoric acid	C; R:34	Skin Corr. 1B Note(s): B	0.0005-0.002

**Notes:** B Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 of Annex VI entries with Note B have a general designation of the following type: "nitric acid ...%". In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

#### **Additional Information**

The liquid within the cartridges is considered hazardous, and the MSDS has been prepared in case of exposure to the liquid.

TITANIUM DIOXIDE is present in a low concentration, dispersed in a liquid

## \* \* \*Section 4 - FIRST AID MEASURES\* \* \*

#### 4.1 Description of First Aid Measures

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

#### Skin

IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before re-use.

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

#### Ingestion

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

#### 4.2 Most Important Symptoms and Effects, both Acute and Delayed

## **Acute**

respiratory tract irritation, eye damage, skin irritation, allergic skin reaction

#### Delayed

allergic reactions

# 4.3 Indication of any Immediate Medical Attention and Special Treatment Needed Note to Physicians

No additional information.



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## \* \* \*Section 5 - FIRE FIGHTING MEASURES\* \* \*

### 5.1 Extinguishing Media

Use extinguishing agents appropriate for surrounding fire. Class B fires: Use carbon dioxide (CO2), regular dry chemical (sodium bicarbonate), regular form (Aqueous Film Forming Foam-AFFF), or water spray to cool containers.

## **Unsuitable Extinguishing Media**

None known.

#### 5.2 Special Hazards Arising from the Substance or Mixture

Slight fire hazard.

#### **Thermal Decomposition Products**

Combustion: oxides of carbon

## 5.3 Advice for Firefighters

#### **Fire Fighting Measures**

Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Keep unnecessary people away, isolate hazard area and deny entry. Keep out of water supplies and sewers. Avoid inhalation of material or combustion by-products.

## **Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure. Avoid inhalation of material or combustion by-products.

### \* \* \*Section 6 - ACCIDENTAL RELEASE MEASURES\* \* \*

#### Occupational Spill / Release

Intact cartridges do not pose a leak or spill hazard. Damaged cartridges may leak uncured ink. Stop leak if possible without personal risk. Reduce vapors with water spray. Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal. Keep out of water supplies and sewers.

#### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Wear personal protective clothing and equipment, see Section 8.

## 6.2 Environmental Precautions

Avoid release to the environment.

#### 6.3 Methods and Material for Containment and Cleaning up

Collect spilled material. Collect spilled cartridge contents with an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Flush area with water to remove trace residue.

### 6.4 Reference to Other Sections

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations. See Section 13 for Disposal Considerations.

## \* \* \*Section 7 - HANDLING AND STORAGE\* \* \*

#### 7.1 Precautions for Safe Handling

Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid release to the environment.



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## 7.2 Conditions for Safe Storage, Including any Incompatibilities

Store in accordance with all current regulations and standards. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Store between 15 °C and 25 °C. Shipment temperature (up to 5 weeks) is -20 °C to 50 °C. Store in a combustible storage area away from heat and open flame. Store in a cool, dry place. Avoid direct sunlight. Keep in the dark. Keep separated from incompatible substances.



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### \* \* \*Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION\* \* \*

#### 8.1 Control Parameters

## **Component Exposure Limits**

## **Titanium dioxide (13463-67-7)**

Austria: 5 mg/m3 TWA (alveolar dust, respirable fraction)

10 mg/m3 STEL (alveolar dust, respirable fraction, 2 X 60 min)

Belgium: 10 mg/m3 TWA

Bulgaria: 10.0 mg/m3 TWA (respirable dust)

**Denmark:** 6 mg/m3 TWA (as Ti) **Estonia:** 5 mg/m3 TWA

France: 10 mg/m3 TWA (as Ti)

**Greece:** 10 mg/m3 TWA (inhalable fraction); 5 mg/m3 TWA (respirable fraction) **Ireland:** 10 mg/m3 TWA (total inhalable dust); 4 mg/m3 TWA (respirable dust)

**Latvia:** 10 mg/m3 TWA **Lithuania:** 5 mg/m3 TWA

Poland: 10.0 mg/m3 TWA (<2% free crystalline silica and containing no asbestos, total

inhalable dust)

Portugal: 10 mg/m3 TWA [VLE-MP]

Romania: 15 mg/m3 STEL

10 mg/m3 TWA

**Spain:** 10 mg/m3 TWA [VLA-ED] **Sweden:** 5 mg/m3 LLV (total dust)

**United Kingdom:** 10 mg/m3 TWA (total inhalable); 4 mg/m3 TWA (respirable)

30 mg/m3 STEL (calculated, total inhalable); 12 mg/m3 STEL (calculated, respirable)

10 mg/m3 TWA

#### Propylene glycol monomethyl ether acetate (108-65-6)

**EU (IOELV):** 50 ppm TWA; 275 mg/m3 TWA

100 ppm STEL; 550 mg/m3 STEL

Possibility of significant uptake through the skin

Austria: 50 ppm TWA; 275 mg/m3 TWA

100 ppm STEL (8 X 5 min); 550 mg/m3 STEL (8 X 5 min)

skin notation

Belgium: 50 ppm TWA; 275 mg/m3 TWA

100 ppm STEL; 550 mg/m3 STEL

Skin

Bulgaria: Skin notation

550.0 mg/m3 STEL; 100 ppm STEL 275.0 mg/m3 TWA; 50 ppm TWA

Czech Republic: 550 mg/m3 Ceiling

Potential for cutaneous absorption

Cyprus: Skin-potential for cutaneous absorption

100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

**Denmark:** Present

Potential for cutaneous absorption 50 ppm TWA; 275 mg/m3 TWA

Estonia: Sensitizer



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Finland:

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Skin notation

100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA 50 ppm TWA; 270 mg/m3 TWA

100 ppm STEL; 550 mg/m3 STEL Potential for cutaneous absorption

50 ppm TWA (restrictive limit); 275 mg/m3 TWA (restrictive limit) France:

100 ppm STEL [VLCT] (restrictive limit); 550 mg/m3 STEL [VLCT] (restrictive limit)

Risk of cutaneous absorption

Germany (TRGS): 50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when

> AGW and BGW values are observed, exposure factor 1); 270 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values

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are observed, exposure factor 1)

Germany (DFG): 50 ppm TWA MAK; 270 mg/m3 TWA MAK

50 ppm Peak; 270 mg/m3 Peak

Gibraltar: Skin notation

100 ppm STEL; 550 mg/m3 STEL

50 ppm TWA; 275 mg/m3 TWA 50 ppm TWA; 275 mg/m3 TWA

Greece:

100 ppm STEL; 550 mg/m3 STEL

skin - potential for cutaneous absorption

Hungary: 550 mg/m3 STEL [CK]

275 mg/m3 TWA [AK]

Ireland: 50 ppm TWA; 275 mg/m3 TWA

> 100 ppm STEL; 550 mg/m3 STEL Potential for cutaneous absorption

Italy: 50 ppm TWA; 275 mg/m3 TWA

100 ppm STEL; 550 mg/m3 STEL skin - potential for cutaneous absorption

Latvia: skin - potential for cutaneous exposure

> 100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

Skin notation Lithuania:

> 75 ppm STEL; 400 mg/m3 STEL 50 ppm TWA; 250 mg/m3 TWA

Luxembourg: Possibility of significant uptake through the skin

> 100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

Malta: possibility of significant uptake through the skin

> 100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

Netherlands: 550 mg/m3 TWA

> Poland: 520 mg/m3 STEL [NDSCh]

> > 260 mg/m3 TWA

Romania: Skin notation

> 100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

Slovak Republic: 550 mg/m3 Ceiling



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Potential for cutaneous absorption

50 ppm TWA; 275 mg/m3 TWA

**Slovenia:** Potential for cutaneous absorption

100 ppm STEL; 550 mg/m3 STEL 50 ppm TWA; 275 mg/m3 TWA

Spain: 50 ppm TWA [VLA-ED] (indicative limit value); 275 mg/m3 TWA [VLA-ED] (indicative

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limit value)

100 ppm STEL [VLA-EC]; 550 mg/m3 STEL [VLA-EC]

skin - potential for cutaneous exposure

Sweden: 50 ppm LLV; 250 mg/m3 LLV

75 ppm STV; 400 mg/m3 STV

Skin notation

United Kingdom: 50 ppm TWA; 274 mg/m3 TWA

100 ppm STEL; 548 mg/m3 STEL Potential for cutaneous absorption

Phosphoric acid (7664-38-2)

EU (IOELV): 1 mg/m3 TWA

2 mg/m3 STEL

Austria: 1 mg/m3 TWA

2 mg/m3 STEL (4 X 15 min)

Belgium: 1 mg/m3 TWA

2 mg/m3 STEL

Bulgaria: 2.0 mg/m3 STEL

1.0 mg/m3 TWA

Czech Republic: 2 mg/m3 Ceiling

Cyprus: 2.0 mg/m3 STEL

1 mg/m3 TWA

Denmark: 1 mg/m3 TWA

Estonia: 2 mg/m3 STEL (vapor)

1 mg/m3 TWA (vapor)

Finland: 1 mg/m3 TWA

2 mg/m3 STEL

France: 0.2 ppm TWA (indicative limit); 1 mg/m3 TWA (indicative limit)

0.5 ppm STEL [VLCT] (indicative limit); 2 mg/m3 STEL [VLCT] (indicative limit)

Germany (TRGS): 2 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when

AGW and BGW values are observed, inhalable fraction, exposure factor 2)

**Germany (DFG):** 2 mg/m3 TWA MAK (inhalable fraction)

4 mg/m3 Peak (inhalable fraction)

Gibraltar: 2 mg/m3 STEL

1 mg/m3 TWA

Greece: 1 mg/m3 TWA

3 mg/m3 STEL

Hungary: 2 mg/m3 STEL [CK]

1 mg/m3 TWA [AK]

Ireland: 1 mg/m3 TWA

2 mg/m3 STEL

Italy: 1 mg/m3 TWA

2 mg/m3 STEL



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Latvia: 2 mg/m3 STEL

1 mg/m3 TWA

Lithuania: 2 mg/m3 STEL

1 mg/m3 TWA

Luxembourg: 2 mg/m3 STEL

1 mg/m3 TWA

Malta: 2 mg/m3 STEL

1 mg/m3 TWA

Netherlands: 1 mg/m3 TWA

2 mg/m3 STEL

Poland: Corrosive substance

2 mg/m3 STEL [NDSCh]

1 mg/m3 TWA

Portugal: 1 mg/m3 TWA [VLE-MP]

3 mg/m3 STEL [VLE-CD

Romania: 2 mg/m3 STEL

1 mg/m3 TWA

Slovak Republic: 2 mg/m3 Ceiling

1 mg/m3 TWA

Slovenia: 2 mg/m3 STEL

1 mg/m3 TWA

Spain: 1 mg/m3 TWA [VLA-ED] (indicative limit value; it is prohibited the partial or complete

commercialization or use of this substance as a phytosanitary or biocide compound)

2 mg/m3 STEL [VLA-EC]

Sweden: 1 mg/m3 LLV

3 mg/m3 STV

United Kingdom: 1 mg/m3 TWA

2 mg/m3 STEL 1 mg/m3 TWA 3 mg/m3 STEL

#### EU - Interim Strategy for Management of PBT and vPvB Substances (PBT Assessments)

No components of this material are listed.

#### **Biological Limit Value**

#### **Component Analysis**

There are no biological limit values for any of this product's components.

## **Derived No Effect Levels (DNELs)**

No DNELs available.

### **Predicted No Effect Concentrations (PNECs)**

No PNECs available.

#### Ventilation

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

## 8.2 Exposure Controls

## **Appropriate Engineering Controls**

#### **Eye / Face Protection**

Eye protection not required under normal conditions. Chemical goggles or safety glasses with side shields should be worn when handling a damaged cartridge.



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#### **Skin Protection**

Protective clothing is not required under normal conditions. Wear neoprene or nitrile impervious gloves when handling damaged cartridge. Wash contaminated clothing before reuse.

#### **Glove Recommendations**

Wear neoprene or nitrile impervious gloves when handling damaged cartridge.

#### **Respiratory Protection**

Respiratory protection is not generally needed when using this product.

## \* \* \*Section 9 - PHYSICAL AND CHEMICAL PROPERTIES\* \* \*

## 9.1 Information on Basic Physical and Chemical Properties

Physical State:	Liquid	Appearance:	ink cartridge containing blue
			liquid ink
Color:	blue	Physical Form:	liquid
Odor:	characteristic odor	Odor Threshold:	Not available
pH:	Not applicable	Melting Point:	Not available
Boiling Point:	Not available	Decomposition:	Not available
Flash Point:	>100 °C	Evaporation Rate:	Not available
LEL:	Not available	UEL:	Not available
Vapor Pressure:	Not available	Vapor Density (air = 1):	Not available
Density:	Not available	Specific Gravity (water = 1):	Not available
Water Solubility:	Not available	Coeff. Water/Oil Dist:	Not available
Auto Ignition:	Not available	Viscosity:	Not available
Volatility:	Not available		

## \* \* \*Section 10 - STABILITY AND REACTIVITY\* \* \*

### 10.1 Reactivity

Heating may cause a fire

#### 10.2 Chemical Stability

Unstable on exposure to light. Unstable on exposure to heat.

### 10.3 Possibility of Hazardous Reactions

Uncured ink will polymerize on exposure to light.

## 10.4 Conditions to Avoid

Avoid exposure to heat and light.

### 10.5 Incompatible Materials

Not applicable under normal conditions of use and storage.

## 10.6 Hazardous Decomposition Products

### **Thermal Decomposition Products**

Combustion: oxides of carbon



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## \* \* \*Section 11 - TOXICOLOGICAL INFORMATION\* \* \*

## 11.1 Information on Toxicological Effects

#### **Acute and Chronic Toxicity**

No hazard is expected from the normal use of this product. While unlikely, uncured ink may leak from damaged ink cartridges and cause skin and eye irritation. After skin contact: tingling or irritation of the skin. After eye contact: irritation, inflammation or damage of the eye tissue.

### Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and the following selected endpoints are published:

#### **Titanium dioxide (13463-67-7)**

Oral LD50 Rat >10000 mg/kg

## Propylene glycol monomethyl ether acetate (108-65-6)

Oral LD50 Rat 8532 mg/kg; Dermal LD50 Rabbit >5000 mg/kg

## Phosphoric acid (7664-38-2)

Oral LD50 Rat 1530 mg/kg; Dermal LD50 Rabbit 2730 mg/kg

#### **Irritation / Corrosivity**

Contact with uncured ink may cause eye and skin irritation. Inhalation may cause respiratory tract irritation.

#### **Respiratory Sensitization**

No data available for the mixture.

#### Skin Sensitization

Component data indicate the substance is sensitizing. Uncured ink may cause an allergic response in sensitized individuals.

#### **Germ Cell Mutagenicity**

No data available for the mixture.

#### Carcinogenicity

## **Component Carcinogenicity**

#### **Titanium dioxide (13463-67-7)**

IARC: Monograph 93 [2010]; Monograph 47 [1989] (Group 2B (possibly carcinogenic to humans))

FG: Category 3A (could be carcinogenic for man, inhalable fraction with the exception of ultra small

particles)

## **Reproductive Toxicity**

No data available for the mixture.

### **Specific Target Organ Toxicity - Single Exposure**

respiratory system

## Specific Target Organ Toxicity - Repeated Exposure

May cause damage to organs through prolonged or repeated exposure

#### **Aspiration Hazard**

No data available for the mixture.

## \* \* \*Section 12 - ECOLOGICAL INFORMATION\* \* \*

#### 12.1 Toxicity

Harmful to aquatic life with long lasting effects.



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## **Component Analysis - Aquatic Toxicity**

Data may be available for the product or its components (if applicable, see below).

#### Propylene glycol monomethyl ether acetate (108-65-6)

Fish: 96 Hr LC50 Pimephales promelas: 161 mg/L [static]

Invertebrate: 48 Hr EC50 Daphnia magna: >500 mg/L

**Phosphoric acid (7664-38-2)** 

**Fish:** 96 Hr LC50 Gambusia affinis: 3 - 3.5 mg/L **Invertebrate:** 12 Hr EC50 Daphnia magna: 4.6 mg/L

#### 12.2 Persistence and Degradability

No data available for the mixture.

#### 12.3 Bioaccumulative Potential

No data available for the mixture.

#### 12.4 Mobility in Soil

No data available for the mixture.

#### 12.5 Results of PBT and vPvB Assessment

No information available.

### EU - Interim Strategy for Management of PBT and vPvB Substances (PBT Assessments)

No components of this material are listed.

#### 12.6 Other Adverse Effects

No information available.

## \* \* \*Section 13 - DISPOSAL CONSIDERATIONS\* \* \*

#### 13.1 Waste Treatment Methods

Dispose in accordance with all applicable regulations. Hazardous Waste Number(s): 08 03 12\* Refer to manufacturer/supplier for information on recovery/recycling. Do not landfill. Avoid discharge into drains or surface water. See Section 7 for handling procedures. See Section 8 for personal protection information.

## \* \* \*Section 14 - TRANSPORT INFORMATION\* \* \*

## **Transportation**

		ADR	RID	ICAO	ADN	IMDG
	UN Number	3082	3082	3082	3082	3082
14.2	<b>UN Proper Shipping</b>	Environmental	Environmental	Environmental	Environmental	Environmental
	Name	ly hazardous substance, liquid, n.o.s.	ly hazardous substance, liquid, n.o.s.	ly hazardous substance, liquid, n.o.s. (Contains:	ly hazardous substance, liquid, n.o.s. (Contains:	ly hazardous substance, liquid, n.o.s. (Contains:
14.3	Transport Hazard Class(es)	Exo-1,7,7- Trimethylbicycl o[2.2.1]hept-2- yl acrylate) Hazard Class: 9	Exo-1,7,7- Trimethylbicycl o[2.2.1]hept-2- yl acrylate) Hazard Class: 9	Exo-1,7,7- Trimethylbicycl o[2.2.1]hept-2- yl acrylate) Hazard Class: 9	Exo-1,7,7- Trimethylbicycl o[2.2.1]hept-2- yl acrylate) Hazard Class: 9	Exo-1,7,7- Trimethylbicycl o[2.2.1]hept-2- yl acrylate) Hazard Class: 9
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14.4	Packing Group	Packing	Packing	Packing	Packing	Packing
		Group: III	Group: III	Group: III	Group: III	Group: III
14.5	Environmental	Marine	Marine	Marine	Marine	Marine
	Hazards	Pollutant	Pollutant	Pollutant	Pollutant	Pollutant
14.6	<b>Special Precautions</b>	Classificatio	Classificatio	Passenger	Classificatio	EMS: F-A, S-
	For User	n Code : M6	n Code : M6	and Cargo aircraft -	n Code : M6	F
				Packaging		
				Instructions:		
				Y964/964		

14.7 Transport in Bulk
According to Annex II

or MARPOL 73/78 and the IBC Code



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#### International Bulk Chemical Code

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

Titanium dioxide (13463-67-7)

IBC Code: Category Z (slurry)

Propylene glycol monomethyl ether acetate (108-65-6)

IBC Code: Category Z
Phosphoric acid (7664-38-2)
IBC Code: Category Z

## \* \* \*Section 15 - REGULATORY INFORMATION\* \* \*

15.1 Safety, Health and Environmental Regulations / Legislation Specific for the Substance or Mixture EU - REACH (1907/2006) - Annex XIV List of Substances Subject to Authorisation

No components of this material are listed.

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EU - REACH (1907/2006) - Article 59(1) Candidate List of Substances for Eventual Inclusion in Annex XIV No components of this material are listed.

EU - REACH (1907/2006) - Annex XVII Restrictions of Certain Dangerous Substances, Mixtures and Articles
No components of this material are listed.

## **Germany Regulations**

**Germany Water Classification** 

Acrylic monomer (5117-12-4)

ID Number 6697, hazard class 2 - hazard to waters

Exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acrylate (5888-33-5)

ID Number 2247, hazard class 2 - hazard to waters

Phosphine oxide, phenylbis(2,4,6-trimethylbenzoyl)- (162881-26-7)

ID Number 2126, hazard class 1 - low hazard to waters

**Titanium dioxide (13463-67-7)** 

ID Number 1345, not considered hazardous to water

Propylene glycol monomethyl ether acetate (108-65-6)

ID Number 5033, hazard class 1 - low hazard to waters

**Phosphoric acid (7664-38-2)** 

ID Number 392, hazard class 1 - low hazard to waters

## **Denmark Regulations**

## **Environmental Protection Agency List of Undesirable Substances**

No components of this material are listed.

#### **EU Inventory**

#### **Substance Analysis - Inventory**

Component	CAS	EEC
Acrylic monomer		ELN
Exo-1,7,7-Trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	EIN
Acrylic oligomer		NLP
Photo Initiator		ELN
Acrylic acid ester	52408-84-1	NLP
Titanium dioxide	13463-67-7	EIN
Propylene glycol monomethyl ether acetate	108-65-6	EIN
Phosphoric acid	7664-38-2	EIN

## 15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the substance/mixture.

## \* \* \*Section 16 - OTHER INFORMATION\* \* \*

#### 16.1 Indication of changes

New MSDS: October 23, 2012



Material Name: OBJET VEROCYAN RGD841

In Compliance with Regulation (EC) 1907/2006 (REACH) as Amended

MSDS ID: DOC-06154 B

#### 16.2 Key / Legend

ADR - European Road Transport; EEC - European Economic Community; EIN (EINECS) - European Inventory of Existing Commercial Chemical Substances; ELN (ELINCS) - European List of Notified Chemical Substances; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IMDG - International Maritime Dangerous Goods; Kow - Octanol/water partition coefficient; LEL - Lower Explosive Limit; RID - European Rail Transport; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TWA - Time Weighted Average; UEL - Upper Explosive Limit

#### 16.3 Key literature references and sources for data

Available upon request

#### 16.4 Methods used for classification of mixture according to Regulation (EC) No 1272/2008

Available upon request

#### 16.5 Training Advice

Read the Safety Data Sheet before handling product.

#### 16.6 Other Information

The information in this safety data sheet is based on data and samples provided to a third party SDS author. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned in this safety data sheet. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question.

Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. Stratasys does not guarantee the accuracy or exhaustiveness of the information provided. Use of this safety data sheet is subject to the license and liability limiting conditions as stated in your license agreement. All intellectual property rights to this sheet are the property of Stratasys and its distribution and reproduction are limited.

End of Sheet DOC-06154 B