



## PRODUCT SAFETY DATA SHEET

### Repsil E20 Catalyst

#### 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

**Trade name:** Repsil E20 Catalyst  
**Company:** Replication Technologies Ltd  
Unit 38, Hillgrove Business Park  
Nazeing Road  
Nazeing, Waltham Abbey  
Essex  
EN9 2HB

**Service:** Tel: 01992 892 894  
Fax: 01992 892 901

**Emergency Phone Number:** 07785 972 461

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#### 2. COMPOSITION / INFORMATION ON INGREDIENTS

**Chemical characterization:** Organotin compound

##### **Hazardous Ingredients:**

<b>Name</b>	<b>CAS-No.</b>	<b>EINECS/ ELINCS No.</b>	<b>Conc. (% w/w)</b>	<b>Classification</b>	
Tetrapropyl orthosilicate	682-01-9	211-659-0	25.0	Xi	R36/38
Trimethoxyphenylsilane	2996-92-1	221-066-9	11.0	Xn	R22
Dibutyltin dilaurate	77-58-7	201-039-8	7.0	Xn	R20/21/22 N R51/53
Tetramethyl orthosilicate	681-84-5	211-656-4	1.0	T	R25
Methanol	67-56-1	200-659-6	0.4	T	R39/23/24/25 R23/24/25
Cyclohexyltrimethoxysilane	-	Exempt or not Available	0.2	Xn N	R20/22 R51/53

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#### 3. HAZARDS IDENTIFICATION

**The principal hazards of the product as supplied are:**

Flammable.  
Harmful if swallowed.  
Irritating to eyes and skin.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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#### **4. FIRST AID MEASURES**

<b>On contact with eyes</b>	:	Immediately flush with water. If eye irritation persists, consult a specialist.
<b>On skin contact</b>	:	Immediately flush with water. If skin irritation persists, get medical attention
<b>If inhaled</b>	:	Remove to fresh air.
<b>On ingestion</b>	:	Obtain medical attention.

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#### **5. FIRE FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	:	Carbon dioxide, foam, dry powder or fine water spray. Water can be used to cool fire exposed containers.
<b>Unsuitable extinguishing Media</b>	:	None known.
<b>Hazards during fire fighting</b>	:	Electrostatic charges may be generated during transfer of product from its container. Ensure that all equipment is electrically earthed.
<b>Special protective equipment/procedures</b>	:	A self-contained respirator and protective clothing should be worn. Keep containers cool with water spray until well after the fire is out. Determine the need to evacuate or isolate the area according to your local emergency plan.
<b>Hazardous Combustion Products</b>	:	Silica. Carbon oxides and traces of incompletely burned carbon compounds. Formaldehyde. Metal products.

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#### **6. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	:	Wear proper protective equipment.
<b>Precautions to protect the environment</b>	:	Do not empty into drains. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth or other appropriate barriers
<b>Methods for cleaning up</b>	:	Determine the need to evacuate or isolate the area according to your local emergency plan. Eliminate all possible sources of ignition. Very large spills should be contained by bunding, etc... procedures. Mop, wipe or soak up with absorbent material and place in a container with a lid. The spilled product produces an extremely slippery surface.

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#### **7. HANDLING AND STORAGE**

<b>Advice on safe handling</b>	:	Avoid skin and eye contact. Do not breathe vapour. Do not ingest. General ventilation is required. Local ventilation is recommended.
<b>Advice on storage</b>	:	Store in a flameproof, well ventilated area. Electrostatic charges may be generated during transfer of product from its container. Ensure that all equipment is electrically earthed. Keep container tightly closed.
<b>Specific uses</b>	:	Refer to technical data sheet available on request.
<b>Unsuitable packaging materials</b>	:	None known.

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#### **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Engineering Controls** : Ventilation : Refer to Section 7

### **Exposure controls for hazardous components**

<b>Name</b>	<b>CAS-No.</b>	<b>Exposure Limits</b>
Trimethoxyphenylsilane	2996-92-1	200 ppm TWA, 250 ppm STEL as methanol
Dibutyltin dilaurate	77-58-7	0.2 mg/m <sup>3</sup> STEL as Sn 0.1 mg/m <sup>3</sup> TWA as Sn
Tetramethyl orthosilicate	681-84-5	5 ppm STEL 1 ppm TWA 32 mg/m <sup>3</sup> STEL 6.3 mg/m <sup>3</sup> TWA
Methanol	67-56-1	250 ppm STEL 200 ppm TWA 333 mg/m <sup>3</sup> STEL 266 mg/m <sup>3</sup> TWA

### **Personal protection equipment**

<b>Respiratory protection</b>	:	Suitable respiratory protection should be worn if the product is used in large quantities, confined spaces or in other circumstances where the OEL may be approached or exceeded.
<b>Hand protection</b>	:	Chemical protective gloves should be worn where repeated or prolonged contact can occur: Silver shield(TM). 4H(TM). Regarding glove's breakthrough time...,contact your chemical protective glove supplier.
<b>Eye protection</b>	:	Face shield or safety goggles.
<b>Skin protection</b>	:	Wear impervious overalls in circumstances where significant skin contact can occur.
<b>Hygiene measures</b>	:	Exercise good industrial hygiene practice. Wash after handling, especially before eating, drinking or smoking.
<b>Environmental exposure controls</b>	:	Refer to section 6 and 12.
<b>Additional information</b> elevated	:	These precautions are for room temperature handling. Use at temperature or aerosol/spray applications may require added precautions. For further information regarding the use of silicones in consumer aerosol applications, please refer to the guidance document regarding the use of silicone-based materials in consumer aerosol applications that has been developed by the silicone industry ( <a href="http://www.SEHSC.com">www.SEHSC.com</a> ) or contact Replication Technologies Limited.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **Appearance**

**Form:** Liquid      **Colour:** Colorless      **Odour:** Very little

### **Other data**

**Boiling point/range** : > 35 °C/95F  
**Flash point** : 38 °C (Closed Cup)

<b>Explosive properties</b>	:	No
<b>Specific Gravity</b>	:	0.960
<b>Viscosity</b>	:	38 cSt at 25°C.
<b>Oxidizing properties</b>	:	No

The above information is not intended for use in preparing product specifications. Contact Replication Technologies Limited before writing specifications.

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## **10. STABILITY AND REACTIVITY**

<b>Stability</b>	:	Stable under normal usage conditions.
<b>Conditions to avoid</b>	:	None established.
<b>Materials to avoid</b>	:	Can react with strong oxidising agents.
<b>Hazardous decomposition products</b>	:	See section 11.

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## **11. TOXICOLOGICAL INFORMATION**

<b>On contact with eyes</b> <sup>3</sup>	:	Irritating.
<b>On skin contact</b>	:	Irritating.
<b>If inhaled</b> <sup>3</sup>	:	May cause dizziness, drowsiness, confusion, headaches, nausea, and at high concentrations, unconsciousness.
<b>On ingestion</b> <sup>3</sup>	:	Harmful if swallowed. Forms methanol and may cause serious injury to man at doses > 200 mg/kg.
<b>Other Health Hazard Information</b>	:	Product may emit formaldehyde vapours at temperatures above 150°C in the presence of air. Formaldehyde vapour is harmful by inhalation and irritating to eyes and respiratory system at breathing concentration less than one part per million (1 ppm).

<sup>1</sup> Based on product test data.

<sup>2</sup> Based on test data from similar products.

<sup>3</sup> This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

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## **12. ECOLOGICAL INFORMATION**

### **Environmental fate and distribution**

This product hydrolyses in water or wet soil, releasing alcohols and silicic acid.

### **Ecotoxicity effects**

Harmful to aquatic organisms and may cause long-term adverse effects in the aquatic environment.

**Bioaccumulation** : Organotin compounds can bioaccumulate.

### **Fate and effects in waste water treatment plants**

May cause adverse effects on bacteria.

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## **13. DISPOSAL CONSIDERATIONS**

<b>Product disposal</b>	:	Dispose of in accordance with local regulations.
<b>Packaging disposal</b>	:	Dispose of in accordance with local regulations.

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## **14. TRANSPORT INFORMATION**

### **Road / Rail (ADR/RID)**

**UN No.** : 1993  
**Proper Shipping Name** : FLAMMABLE LIQUID, N.O.S. (NON VISCOUS)  
(Contains TETRAPROPYLORTHOSILICATE)  
**Class** : 3  
**Packing group** : III  
**Trem-Card** : 30G35-A  
**Labels** : ADR DANGER LABEL MODEL NO 3

### **Sea transport (IMDG)**

**UN No.** : 1993  
**Proper Shipping Name** : FLAMMABLE LIQUID, N.O.S.  
(Contains TETRAPROPYLORTHOSILICATE)  
**Class** : 3  
**Packing group** : III  
**Medical First Aid Guide (MFAG)** : REFER TO THE EMERGENCY ACTION TABLE OF MFAG  
**Emergency Schedule (Ems)** : EMS F-E EMS S-E  
**Marine pollutant** : DIBUTYLTIN DILAURATE  
**Labels** : FLAMMABLE LIQUID  
MARINE POLLUTANT

### **Air transport (IATA)**

**UN No.** : 1993  
**Proper Shipping Name** : FLAMMABLE LIQUID, N.O.S.  
(Contains TETRAPROPYLORTHOSILICATE)  
**Class** : 3  
**Packing group** : III  
**Labels** : FLAMMABLE LIQUID

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## **15. REGULATORY INFORMATION**

### **Labelling according to EEC Directive**

**Contains** : Trimethoxyphenylsilane

**Symbols** : Xn Harmful.

**R-phrases** : R10 Flammable.  
R22 Harmful if swallowed.  
R36/38 Irritating to eyes and skin.  
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrases** : S2 Keep out of the reach of children.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37 Wear suitable gloves.  
S51 Use only in well-ventilated areas.  
S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

## National legislation / regulations

**Ozone depleting chemicals** : No ozone depleting chemicals are present or used in manufacture.

## Status

**EINECS** : All ingredients listed or exempt.

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## 16. OTHER INFORMATION

This product safety data sheet was prepared in compliance with Commission Directive 91/155/EEC, 67/548/EEC and 1999/45/EC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labeling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Replication Technologies Limited product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Replication Technologies Limited Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with Commission Directive 1999/45/EC.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. Replication Technologies Limited shall not be held responsible for any defect in the product covered by this SDS, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from Replication Technologies Limited supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary - even for the same product - between different countries, reflecting the different compliance requirements. Should you have any question, please refer to Replication Technologies Limited.

**R20/21/22** Harmful by inhalation, in contact with skin and if swallowed., **R20/22** Harmful by inhalation and if swallowed., **R22** Harmful if swallowed., **R23/24/25** Toxic by inhalation, in contact with skin and if swallowed., **R25** Toxic if swallowed., **R36/38** Irritating to eyes and skin., **R39/23/24/25** Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed., **R51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.