

Issue Date 02-Nov-2015

Revision Date 18-July-2018

Version 1.1

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product identifier****Product Name** FS#-PCR2, ForenSeq $\diamond$  PCR2 Reaction Mix**Other means of identification****Product Code** 15054259**Synonyms** None**Recommended use of the chemical and restrictions on use****Recommended Use** reagent**Details of the supplier of the safety data sheet****Manufacturer Address**  
Verogen, Inc.  
11111 Flintkote Avenue  
San Diego, CA 92121 USA  
www.verogen.com**Company Phone Number**  
1.833.837.6436  
1.858.285.4101**E-mail address**  
info@verogen.com**Emergency telephone number****24 Hour Emergency Phone Number** 1.858.285.4101**2. HAZARDS IDENTIFICATION****Classification****OSHA Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

**Label elements****Emergency Overview****Signal word**

None

**Hazard statements**

Not Hazardous

**Appearance** colorless liquid**Physical state** Liquid**Odor** Odorless**Precautionary Statements - Prevention**

Handle in accordance with good industrial hygiene and safety practice

**Precautionary Statements - Response**

Specific treatment (see supplemental first aid instructions on this label)

**Precautionary Statements - Storage**

Store away from incompatible materials

**Precautionary Statements - Disposal**

Dispose of in accordance with federal, state and local regulations

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other Information**

Unknown Acute Toxicity 32.1 % of the mixture consists of ingredient(s) of unknown toxicity

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

The product contains no substances which at their given concentration, are considered to be hazardous to health.

Chemical Name	CAS No	Weight-%	Trade Secret
Sucrose	57-50-1	10 - 30	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****First aid measures****General advice**

Use first aid treatment according to the nature of the injury.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Skin Contact**

Wash skin with soap and water. Get medical attention if irritation develops and persists.

**Inhalation**

If symptomatic, move to fresh air. Get medical attention if symptoms persist.

**Ingestion**

Get medical advice/attention.

**Self-protection of the first aider**

Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**Most important symptoms and effects, both acute and delayed****Symptoms**

No information available.

**Indication of any immediate medical attention and special treatment needed****Note to physicians**

Treat symptomatically.

**5. FIRE-FIGHTING MEASURES****Suitable extinguishing media**Water, Water spray (fog), Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)**Unsuitable extinguishing media**

None known.

**Specific hazards arising from the chemical**

None known.

**Hazardous combustion products**

No information available.

**Explosion data**

**Sensitivity to Mechanical Impact** None.  
**Sensitivity to Static Discharge** None.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Use personal protective equipment as required.  
**For emergency responders** Use personal protection recommended in Section 8. Keep unnecessary personnel away.

**Environmental precautions**

**Environmental precautions** Avoid discharge into drains, water courses, or onto the ground.

**Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so. Dike far ahead of liquid spill for later disposal.  
**Methods for cleaning up** Use appropriate personal protective equipment (PPE). Contain and/or absorb spill with inert material (specify sand, vermiculite or other appropriate material)\*, then place in suitable container. Prevent runoff from entering drains, sewers or waterways.

**7. HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place. Store away from incompatible materials.  
**Incompatible materials** Strong oxidizing agents.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Guidelines**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Sucrose 57-50-1	10 mg/m <sup>3</sup> TWA	TWA 15 mg/m <sup>3</sup> (total) TWA 5 mg/m <sup>3</sup> (resp)	TWA 10 mg/m <sup>3</sup> (total) TWA 5 mg/m <sup>3</sup> (resp)

*NIOSH IDLH Immediately Dangerous to Life or Health*

**Other Information** Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

**Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations

Ventilation systems.

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and body protection</b>	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.
<b>Respiratory protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice. Wash after handling this material and before eating, drinking and/or smoking. Regular cleaning of equipment, work area and clothing is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

<b>Physical state</b>	Liquid
<b>Appearance</b>	colorless liquid
<b>Odor</b>	Odorless
<b>Color</b>	colorless

<b><u>Property</u></b>	<b><u>Values</u></b>	<b><u>Remarks • Method</u></b>
<b>pH</b>	No data available	
<b>Melting point / freezing point</b>	No data available	
<b>Boiling point / boiling range</b>		
<b>Flash point</b>		
<b>Evaporation rate</b>	No data available	
<b>Flammability (solid, gas)</b>	No data available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit:</b>	No data available	
<b>Vapor pressure</b>	No data available	
<b>Vapor density</b>	No data available	
<b>Specific Gravity</b>	No data available	
<b>Water solubility</b>	No data available	
<b>Solubility in other solvents</b>	No data available	
<b>Partition coefficient</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Decomposition temperature</b>	No data available	
<b>Kinematic viscosity</b>	No data available	
<b>Dynamic viscosity</b>	No data available	
<b>Explosive properties</b>	No unusual fire or explosion hazards noted.	
<b>Oxidizing properties</b>	No data available	

**Other Information**

<b>Softening point</b>	No data available
<b>Molecular weight</b>	No data available
<b>VOC Content (%)</b>	No data available
<b>Density</b>	No data available
<b>Bulk density</b>	No data available

## 10. STABILITY AND REACTIVITY

**Reactivity**

The product is stable and non-reactive under normal conditions of use, storage and transport.

**Chemical stability**

Stable under normal conditions. Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Hazardous polymerization**

Hazardous polymerization does not occur.

**Conditions to avoid**

None known.

**Incompatible materials**

Strong oxidizing agents.

**Hazardous Decomposition Products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

Low hazard for usual industrial or commercial handling by trained personnel

**Inhalation**

Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

**Eye contact**

Direct contact with eyes may cause temporary irritation.

**Skin Contact**

Prolonged contact may cause redness and irritation.

**Ingestion**

No harmful effects expected in amounts likely to be ingested by accident.

**Information on toxicological effects****Symptoms**

None known.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Skin corrosion/irritation**

Not classified.

**Serious eye damage/eye irritation**

Not classified.

**Sensitization**

Not classified.

**Germ cell mutagenicity**

Not classified.

**Carcinogenicity**

This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity**

Not classified.

**STOT - single exposure**

Not classified.

**STOT - repeated exposure**

Not classified.

**Target Organ Effects**

Eyes, Respiratory system.

**Aspiration hazard**

Not classified.

**Other adverse effects**

No information available.

**Numerical measures of toxicity - Product Information****Unknown Acute Toxicity**

32.1 % of the mixture consists of ingredient(s) of unknown toxicity

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

36.4 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

Not a PBT or vPvB substance or mixture.

**Bioaccumulation**

No data available

**Mobility**

No data available.

**Other adverse effects**

No data available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods****Disposal of wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging**

Do not reuse container. Disposal should be in accordance with applicable regional, national and local laws and regulations.

### 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not regulated
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO (air)</u></b>	Not regulated
<b><u>IATA</u></b>	Not regulated
<b><u>IMDG</u></b>	Not regulated
<b><u>RID</u></b>	Not regulated
<b><u>ADR</u></b>	Not regulated
<b><u>ADN</u></b>	Not regulated

### 15. REGULATORY INFORMATION

**International Inventories**

<b>TSCA</b>	Does not comply
<b>DSL/NDL</b>	Does not comply
<b>EINECS/ELINCS</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	Does not comply

**Legend:**

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals

**U.S. State Right-to-Know Regulations****U.S. EPA Label Information**

EPA Pesticide Registration Number Not Applicable

<b>16. OTHER INFORMATION</b>
------------------------------

<b><u>NFPA</u></b>	Health hazards 0	Flammability 0	Instability 0	Physical and Chemical Properties -
<b><u>HMIS</u></b>	Health hazards 0	Flammability 0	Physical hazards 0	Personal protection X

Prepared By	Verogen Inc.
Issue Date	02-Nov-2015
Revision Date	18-July-2018
Revision Note	Not Applicable.

**Disclaimer**

Although reasonable care has been taken in the preparation of this document, Verogen makes no warranties or representations of any kind as to the accuracy or completeness of the information contained herein, and Verogen assumes no responsibility regarding the suitability of this information or the product for the user's intended purposes or for the consequences of use of this information or the use of the product. The user of this (M)SDS and product should make a determination as to the suitability of the information and the product for their particular purpose(s). To the extent provided by applicable law, Verogen shall not be held liable for any damage or expenses of any kind resulting from handling, use, storage, or disposal of the product.

**End of Safety Data Sheet**