

# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	Simoa Homebrew Assay Development Kit	Manufacturer	Quanterix Corporation
Description	Raw beads, bead buffers, biotinylation reaction buffer, sample diluent, labels	Address	113 Hartwell Avenue Lexington, MA 02421
Product Numbers	101354		
MSDS Issued	May 15, 2015	Telephone	(617) 301-9400
		CHEMTREC	(800) 424-9300 Customer # 21132
<b>Intended Use of the Product</b> Immunoassay on Simoa HD-1; For Research Use Only. Not for Diagnostic Purposes.			

## 2. HAZARDS IDENTIFICATION

**Classification of the Substance or Mixture  
Classification (GHS-US)**

Not classified

**Label Elements**

**GHS-US Labeling**

Not applicable

**Other Hazards**

No additional information available

**Unknown Acute Toxicity (GHS-US):**

No data available

### 3. COMPOSITION – INFORMATION ON INGREDIENTS

#### 3.1 Bead Conjugation and Biotinylation Reaction Buffers

##### Homebrew bead conjugation buffer

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
2-(N-morpholino)ethanesulfonic acid	4432-31-9	0.1-1%	NA
Sodium Chloride	7647-14-5	0.1-1%	231-598-3
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone	55965-84-9	0.1-1%	Unlisted

##### Homebrew Bead Wash buffer

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-5%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.5-2%	231-913-4
Potassium chloride	7447-40-7	0.1 – 1%	231-211-8
Sodium Chloride	7647-14-5	0.1-1%	231-598-3
Tween 20	9005-64-5	0.1-1%	Unlisted

##### Homebrew bead blocking buffer

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-5%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.5-2%	231-913-4
Potassium chloride	7447-40-7	0.1 – 1%	231-211-8
Sodium Chloride	7647-14-5	0.1-1%	231-598-3
Bovine Serum Albumin	9048-46-8	1-10%	232-936-2
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone	55965-84-9	0.1-1%	Unlisted

### Bead diluent buffer

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Tris(hydroxymethyl)aminomethane	77-86-1	0.1-1%	201-064-4
Tris(hydroxymethyl)aminomethane hydrochloride	118-53-1	0.1-1%	214-684-5
Sodium Chloride	7647-14-5	0.1-1%	231-598-3
Bovine Serum Albumin	9048-46-8	1-10%	232-936-2
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone	55965-84-9	0.1-1%	Unlisted
Tween 20	9005-64-5	0.1-1%	Unlisted

### Homebrew Biotinylated Reaction Buffer

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	0.1-0.5%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.01-0.1%	231-913-4
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Sodium Chloride	7647-14-5	0.1-1%	231-598-3
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone	55965-84-9	0.1-0.5%	Unlisted

### Homebrew Detector/Sample Diluent

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	0.2-2%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.03-0.3%	231-913-4
Sodium Chloride	7647-14-5	0.5-5%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Bovine Serum Albumin	9048-46-8	0.05-0.5%	232-936-2
Tween 20	9005-64-5	0.1-1%	Unlisted
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
Interference blockers	N/A	N/A	Unlisted
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone	55965-84-9	0.05-0.5%	Unlisted

#### 4. FIRST AID MEASURES

##### Description of First Aid Measures

**First-aid Measures General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

**First-aid Measures After Inhalation:** When symptoms occur: go into open air and ventilate suspected area.

**First-aid Measures After Skin Contact:** Remove contaminated clothing. Drench affected area with water for at least 15 minutes.

**First-aid Measures After Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**First-aid Measures After Ingestion:** Rinse mouth. Do NOT induce vomiting.

##### Most important symptoms and effects, both acute and delayed

**Symptoms/Injuries:** None expected under normal conditions of use.

**Symptoms/Injuries After Skin Contact:** Contact during a long period may cause light irritation.

**Symptoms/Injuries After Eye Contact:** Direct contact with the eyes is likely irritating.

**Symptoms/Injuries After Ingestion:** May be harmful if swallowed.

##### Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

## FIRE FIGHTING MEASURES

---

### 5.1. Extinguishing Media

**Suitable Extinguishing Media:** Alcohol foam, polymer foam, dry chemical powder, carbon dioxide, water spray, fog.

**Unsuitable Extinguishing Media:** None known.

### 5.2. Special Hazards Arising From the Substance or Mixture

**Fire Hazard:** Not flammable.

**Explosion Hazard:** Product is not explosive.

**Reactivity:** If the product is involved in a fire, it can release toxic chlorine gases.

### 5.3. Advice for Firefighters

**Firefighting Instructions:** Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

## 5. ACCIDENTAL RELEASE MEASURES

---

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

**General Measures:** Do not breathe fumes from fires or vapours from decomposition.

#### 6.1.1. For Non-emergency Personnel

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### 6.1.2. For Emergency Responders

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

### 6.2. Environmental Precautions

Prevent entry to sewers and public waters.

### 6.3. Methods and Material for Containment and Cleaning Up

**For Containment:** Absorb and/or contain spill with inert material, then place in suitable container.

**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely.

### 6.4. Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

## 6. HANDLING AND STORAGE

**Handling:** Refer to section 8. Wear appropriate personal protective equipment when using this product.

**Storage:** Some contents storage at 2-8 degrees Celsius and others at -20 degrees Celsius

## 7. EXPOSURE CONTROLS, PERSONAL PROTECTION

---

### 8.1. Control Parameters

No Occupational Exposure Limits (OELs) have been established for this product or its chemical components.

### 8.2. Exposure Controls

**Appropriate Engineering Controls** : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

**Personal Protective Equipment** : Gloves. In case of splash hazard: safety glasses.



**Hand Protection** : Wear chemically resistant protective gloves.

**Eye Protection** : Chemical goggles or safety glasses.

**Other Information** : When using, do not eat, drink or smoke.

---

## 8. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Liquid
Odor:	Odorless
Solubility:	Miscible in water
Physical state:	Liquid
Melting Point:	Not Available
Boiling Point:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
pH:	7.0-8.0
Evaporation Rate:	Not Available

## 9. STABILITY AND REACTIVITY

Incompatibility: (materials to avoid)	None known
Stability:	Stable
Hazardous Polymerization:	None
Conditions to Avoid:	None

## 10. TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity : Not classified

<b>Potassium chloride (7447-40-7)</b>	
LD50 Oral Rat	2600 mg/kg
<b>Dihydrogen potassium phosphate (7778-77-0)</b>	
LD50 Dermal Rabbit	> 4640 mg/kg
<b>Sodium chloride (7647-14-5)</b>	
LD50 Oral Rat	3 g/kg
LD50 Dermal Rabbit	> 10 g/kg
LC50 Inhalation Rat (mg/l)	> 42 g/m <sup>3</sup> (Exposure time: 1 h)
<b>Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone (55965-84-9)</b>	
LD50 Oral Rat	53 mg/kg

**Skin Corrosion/Irritation:** Not classified

**Serious Eye Damage/Irritation:** Not classified

**Respiratory or Skin Sensitization:** Not classified

**Germ Cell Mutagenicity:** Not classified

**Carcinogenicity:** Not classified

**Reproductive Toxicity:** Not classified

**Specific Target Organ Toxicity (Single Exposure):** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** Not classified

**Aspiration Hazard:** Not classified

**Symptoms/Injuries After Skin Contact:** Contact during a long period may cause light irritation.

**Symptoms/Injuries After Eye Contact:** Direct contact with the eyes is likely irritating.

**Symptoms/Injuries After Ingestion:** May be harmful if swallowed.

## 11. ECOLOGICAL INFORMATION

Data not yet available.

## 12. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national and international regulations.

## 13. TRANSPORTATION INFORMATION

To the best of our knowledge, this product is not regulated as a hazardous material.

## 14. REGULATORY INFORMATION

### US Federal Regulations

<b>Potassium chloride (7447-40-7)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Dihydrogen potassium phosphate (7778-77-0)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Sodium chloride (7647-14-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Water (7732-18-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Polyoxyethylene sorbitan monolaurate (9005-64-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

### US State Regulations

<b>Potassium chloride (7447-40-7)</b>
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
<b>Sodium chloride (7647-14-5)</b>
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term
<b>Polyoxyethylene sorbitan monolaurate (9005-64-5)</b>
U.S. - Texas - Effects Screening Levels - Long Term
U.S. - Texas - Effects Screening Levels - Short Term

## 15. OTHER INFORMATION

### Disclaimer:

The information and recommendations contained herein are based upon tests believed to be reliable. However, Quanterix Corporation does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. Quanterix Corporation assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.