

# Material Safety Data Sheet

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name	<b>Simoa TNF beta Discovery Kit</b>	Manufacturer	<b>Quanterix Corporation</b>
Description	A kit of reagents to be used on the <b>Quanterix instrument (Simoa)</b> for the detection and quantification of purified proteins. Kit consists of a mixture of reagents that are non-hazardous, non-toxic and non-infectious compounds; not for human use.	Address	113 Hartwell Avenue
Product Number	<b>102091</b>		Lexington, MA 02421
MSDS Issued	August 23, 2017	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

#### Bead Stock

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
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
Bovine Serum Albumin*	9048-46-8	0.1-1%	232-936-2
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone*	55965-84-9	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1%	Unlisted
Carboxylated paramagnetic beads (microparticles), 2.7 um conjugated with Purified anti-human TNF Beta Monoclonal Mouse IgG*	Unlisted	0.01-0.1%	Unlisted

#### Detector Stock

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Purified TNF Beta antibody coupled with biotin*	Unlisted	Not applicable	Unlisted
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted

### Sample Diluent

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted
Interference blocker*	Unlisted	0.0001-0.01%	Unlisted
Superchemiblock	Unlisted	0.0001-0.01%	Unlisted

### Calibrator Diluent

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
Newborn calf serum*	Unlisted	3-30%	Unlisted
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone*	55965-84-9	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted
Interference blocker*	Unlisted	0.0001-0.01%	Unlisted

### Calibrator Concentrate

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Purified Recombinant Human TNF Beta Antigen*	Unlisted	0.1-10%	Unlisted
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted

### Discovery SBG Concentrate

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Potassium chloride	7447-40-7	0.01–0.1%	231-211-8
Sodium Chloride	7647-14-5	0.5-5%	231-598-3
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted
Sucrose	57-50-1	1-10%	200-334-9
Magneisum chloride	7786-30-3	0.01-0.1%	Unlisted
Enzyme Conjugate*	Unlisted	0.01-0.1%	Unlisted

### Discovery Bead Diluent

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
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
Antifoaming agent*	Unlisted	0.01-0.1%	Unlisted
Bovine Serum Albumin*	9048-46-8	0.1-1%	232-936-2
Mixture, 3(2H)-isothiazolone, 5-chloro-2-methyl- with 2-methyl-3(2H)-isothiazolone*	55965-84-9	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1%	Unlisted

### Discovery Detector Diluent

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted

## Discovery SBG Diluent

Component	CAS No.	Percent Composition	EINECS number
Water	7732-18-5	90-100%	Not classified
Sodium phosphate, dibasic	7558-79-4	1-10%	231-448-7
Potassium phosphate, Monobasic	7778-77-0	0.1-1%	231-913-4
Sodium Chloride	7647-14-5	0.5-5.0%	231-598-3
Potassium chloride	7447-40-7	0.01-0.1%	231-211-8
Ethylenediaminetetraacetic acid disodium salt dihydrate	6381-92-6	0.1-1%	200-449-4
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	0.01-0.1%	Unlisted
Sucrose	57-50-1	1-10%	200-334-9
Magnesium chloride	7786-30-3	0.01-0.1%	Unlisted
Tween 20	9005-64-5	0.1-1.0%	Unlisted

## RGP Reagent

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
Pluronic F-127	9003-11-6	0.01-0.1%	Unlisted
Resorufin b-galactopyranoside	95079-19-9	0.001-0.01%	Unlisted

\* These ingredients, within the current knowledge of the supplier and in the concentrations applicable, are not classified as hazardous to health or to the environment.

- **Other components of the HD-1 Data Reduction Teach Kit:**

Following consumables are also part of the aforementioned kit. These consumables are paper and plastic-based and are not chemicals/reagents.

- Reagent bottle pack
- Box, Discovery Assay Kit
- Box, Large Interior
- Box Insert, Large Interior
- Box, Small Interior
- Box Insert, Small Interior
- Label, Blank, Kit Box, 3x4
- Label, Blank, Kit Box, 2x3
- Label, Blank, Kit Box, 1x2
- Label, Printed (2x – SBG, Detector, Bead and Sample Diluent)

#### 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.

#### 5. FIRE FIGHTING MEASURES

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##### 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.

## 6. ACCIDENTAL RELEASE MEASURES

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### 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.

## 7. HANDLING AND STORAGE

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

**Storage:** Some contents stored at Room Temperature. Some contents storage at 2-8 degrees Celsius and others at -20 degrees Celsius.

## 8. EXPOSURE CONTROLS, PERSONAL PROTECTION

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### 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.

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## 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.