

## EPO ELISA STOP SOLUTION EFFECTIVE DATE: 2015-07-16

# 1 Product and Company Identification

**1.1 Product Name:** EPO ELISA Stop Solution

**1.2 Product Identifier:** sulphuric acid 2.45%

**1.3 Catalog Number:** 01605

1.4 Product Use: EPO ELISA

**1.5 Manufacturer/Supplier:** STEMCELL Technologies

Suite 500-1618 Station Street

Vancouver, British Columbia V6A 1B6 Canada

**1.6** In Case of Emergency Call: 1-800-667-0322

## 2 Hazards Identification

#### 2.1 Classification of the substance or mixture

Corrosive to Metals, Category 1 Skin Irritation, Category 2 Eye Irritation, Category 2A

## 2.2 Label elements

# **Pictogram**



Signal word	Warning
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# **Hazard statement(s)**

H290 May be corrosive to metals.
H315 Causes skin irritation.

H319 Causes serious eye irritation.

# Precautionary statement(s)

P234 Keep only in original container.
P264 Wash skin thoroughly after handling.

P280 Wear eye protection/face protection/protective gloves.
P302+352 IF ON SKIN: Wash with plenty of soap and water.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rınsıng.

P332+313 If skin irritation occurs: Get medical advice/ attention.
P337+313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

P390 Absorb spillage to prevent material damage.

2.3 Other hazards No data available

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## 3 Composition / Information on Ingredients

#### 3.1 Substances

Hazardous Components (Chemical Name)	CAS#	Concentration	EC#
Sulfuric acid	7664-93-9	2.45%	231-639-5

#### 4 First Aid Measures

## 4.1 Description of first aid measures

#### 4.1.1 If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### 4.1.2 In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### 4.1.3 In case of eye contact

Flush eyes with water as a precaution.

#### 4.1.4 If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in section 2.2 and/or in section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

No data available

#### 5 Fire Fighting Measures

#### 5.1 Extinguishing Media

## 5.1.1 Suitable Extinguishing Media

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

# 5.1.2 Unsuitable Extinguishing Media

No data available

## 5.2 Special hazards arising from the substance or mixture

#### 5.2.1 Flammable Properties and Hazards

Not flammable or combustible.

#### 5.2.2 Flash Pt

No data available

#### 5.2.3 Autoignition Pt

No data available

## 5.2.4 Explosive Limits

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LEL: No data available

UEL: No data available

# 5.2.5 Hazardous Combustion Products

Sulphur oxides

# 5.3 Fire Fighting Instructions

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

#### 6 Accidental Release Measures

# 6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas.

For personal protection see section 8.

## 6.2 Environmental precautions

Do not let product enter drains.

## 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

# 7 Handling and Storage

#### 7.1 Precautions for safe handling

Avoid inhalation of vapour or mist.

For precautions see section 2.2.

#### 7.2 Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Storage class (TRGS 510): Non-combustible, corrosive hazardous materials

# 8 Exposure Controls/Personal Protection

## 8.1 Exposure limits

#### Components with workplace control parameters

Component	CAS#	Value	Control parameters	Basis
Sulfuric acid	7664-93-9	TWA	0.2 mg/m <sup>3</sup>	Canada. British Columbia OEL
Remarks	'1' applies t	ACGIH 'A2' applies to those substances that are considered suspected human carcinogens. IAR 1' applies to substances categorized as carcinogenic to humans, and used when there is sufficient evidence of carcinogenicity in humans.		
		TWAEV	AEV 0.2 mg/m³ Canada. Ontario OELs	
		STEV	3 mg/m <sup>3</sup>	Canada. Ontario OELs
		STEL	3 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		TWA	1 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table

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# **Safety Data Sheet**

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			2: OEL)
	TWA	1 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	STEL	3 mg/m <sup>3</sup>	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	TWA	0.2 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
	TWA	1 mg/m <sup>3</sup>	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
	TWA	1 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	TWA	0.05 mg/m <sup>3</sup>	UK. EH40 WEL – Workplace Exposure Limits
Remarks	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used		
	TWA	0.05 mg/m <sup>3</sup>	Europe. COMMISSION DIRECTIVE 2009/161/EU establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC
	When selecting an appropriate exposure monitoring method, account should be taken of potential limitations and interferences that may arise in the presence of other sulphu compounds.		

# **Derived No Effect Level (DNEL)**

Application Area	Exposure routes	Health effect	Value
Workers	Inhalation	Acute local effects	0.1 mg/m3
Workers	Inhalation	Long-term local effects	0.05 mg/m3

## **Predicted No Effect Concentration (PNEC)**

Compartment	Value
Marine water	0.00025 mg/L
Fresh water	0.0025 mg/L
Marine sediment	0.002 mg/kg
Fresh water sediment	0.002 mg/kg
On-site sewage treatment plant	8.8 mg/L

## 8.2 Engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

#### 8.3 Personal protective equipment

## 8.3.1 Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## 8.3.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## 8.3.3 Respiratory protection

Respiratory protection not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

## 8.3.4 General hygiene considerations

General industrial hygiene practice.

# 8.3.5 Environmental exposure controls

Do not let product enter drains.

## 9 Physical and Chemical Properties

## 9.1 Information on basic physical and chemical properties

Clear liquid **Appearance** Odour No data available Odour threshold No data available Hq No data available Melting point/freezing point No data available Boiling point/boiling range No data available Flash point No data available Evaporation rate No data available Flammability (solid, gas) No data available Upper/lower flammability or explosive limits No data available Vapour pressure No data available Vapour density No data available

Relative density 1.01 g/mL at 25°C (77°F)

Solubility

Partition coefficient: n-octanol/water

Auto-ignition temperature

Decomposition temperature

Viscosity

No data available

No data available

No data available

10 Stability and Reactivity

**10.1 Reactivity** No data available

**10.2 Chemical stability** Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
 10.4 Conditions to avoid
 10.5 Incompatible materials
 No data available
 No data available

**10.6** Hazardous decomposition products Hazardous decomposition products formed

under fire conditions - Sulphur oxides



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## 11 Toxicological Information

#### 11.1 Acute toxicity

Oral: No data available
Inhalation: No data available
Dermal: No data available
Other: No data available

#### 11.2 Skin corrosion/irritation

No data available

#### 11.3 Serious eye damage/eye irritation

No data available

#### 11.4 Respiratory and/or skin sensitization

No data available

## 11.5 Germ cell mutagenicity

No data available

# 11.6 Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is

identified as a carcinogen or potential carcinogen by OSHA.

## 11.7 Reproductive toxicity

No data available

#### 11.8 Specific target organ toxicity - single exposure

No data available

## 11.9 Specific target organ toxicity - repeated exposure

No data available

#### 11.10 Aspiration hazard

No data available

#### 11.11 Potential health effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion: May be harmful if swallowed.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

#### 11.12 Signs and symptoms of exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Stomach - Irregularities - Based on Human Evidence (Sulfuric acid)

## 11.13 RTECS # No data available

## 12 Ecological Information



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12.1 Toxicity	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Other adverse effects	No data available

# 13 Disposal Considerations

## 13.1 Waste disposal method

Offer surplus and non-recyclable solutions to a licensed disposal company.

## 13.2 Contaminated packaging

Dispose of as unused product.

# **14 Transport Information**

14.1	UN number	DOT ADR/RID IMDG IATA	3264 3264 3264 3264
14.2	UN proper shipping name	DOT ADR/RID IMDG	Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Sulfuric acid) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
		IIVIDO	(Sulfuric acid)
		IATA	Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid)
14.3	Transport hazard class(es)	DOT ADR/RID IMDG IATA	8 8 8 8
14.4	Packing group	DOT ADR/RID IMDG IATA	
14.5	Environmental hazards	DOT ADR/RID IMDG IATA	Marine pollutant: No No Marine pollutant: No No
14.6	Special precautions	No data av	ailable

# 15 Regulatory Information

## 15.1 USA

# **SARA 302 Components:**

The following components are subject to reporting levels established by SARA Title III, Section 302:

Component

CAS # Revision Date

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Sulfuric acid 7664-93-9 2007-07-01

#### **SARA 313 Components:**

The following components are subject to reporting levels established by SARA Title III, Section 313:

Component CAS # Revision Date Sulfuric acid 7664-93-9 2007-07-01

**Massachusetts Right To Know Components** 

Component CAS # Revision Date Sulfuric acid 7664-93-9 2007-07-01

Pennsylvania Right To Know Components

 Component
 CAS #
 Revision Date

 Sulfuric acid
 7664-93-9
 2007-07-01

 Water
 7732-18-5

**New Jersey Right To Know Components** 

 Component
 CAS #
 Revision Date

 Sulfuric acid
 7664-93-9
 2007-07-01

 Water
 7732-18-5

#### California Prop. 65 Components

WARNING! This product contains a chemical known to the State of California to cause cancer.

Component CAS # Revision Date Sulfuric acid 7664-93-9 2007-07-01

#### 15.2 EU

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

#### 15.3 Canada

WHMIS Classification: E Corrosive Material

This SDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

# 16 Other Information

**16.1 Prepared by:** Quality Control, STEMCELL Technologies Inc.

16.2 Revision: N/A

**16.3 Notice:** The above information is believed to be correct but does not purport to be all

inclusive and shall be used only as a guide. STEMCELL Technologies Inc. shall not be held liable for any damage resulting from handling or from contact with the product. The information contained in this Safety Data Sheet (SDS) is current as of the Effective Date shown in this document and may be subject to

amendment by STEMCELL Technologies Inc.

16.4 Disclaimer: THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR

**HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.**