

## Kit Summary

**Product Code(s)** AB100585  
**Product name** Human LYVE ELISA Kit

### 5X Assay Diluent B

| Chemical Name               | EC-No     | CAS-No     | Weight % | Classification (Reg. 1272/2008)   | REACH Registration Number |
|-----------------------------|-----------|------------|----------|---|---------------------------|
| 5-Bromo-5-nitro-1,3-dioxane | 250-001-7 | 30007-47-7 | 0.010    | STOT RE 2 (H373)<br>Skin Corr. 1A (H314)<br>Acute Tox. 4 (H302)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) | -                         |

### Assay Diluent A

| Chemical Name | EC-No     | CAS-No     | Weight % | Classification (Reg. 1272/2008)  | REACH Registration Number |
|---------------|-----------|------------|----------|--|---------------------------|
| Sodium azide  | 247-852-1 | 26628-22-8 | 0.010    | Acute Tox. 2 (H300)<br>Acute Tox. 1 (H310)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)<br>(EUH032) | -                         |

### TMB One-Step Substrate Reagent

| Chemical Name | EC-No | CAS-No     | Weight % | Classification (Reg. 1272/2008)                                 | REACH Registration Number |
|---------------|-------|------------|----------|---|---------------------------|
| TMB           | -     | 54827-17-7 | 0.5      | STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319) | -                         |

### 200X HRP-Streptavidin Concentrate

| Chemical Name | EC-No     | CAS-No  | Weight % | Classification (Reg. 1272/2008) | REACH Registration Number |
|---------------|-----------|---------|----------|---------------------------------|---------------------------|
| Glycerol      | 200-289-5 | 56-81-5 | 40       | -                               | -                         |

### Stop Solution

| Chemical Name  | EC-No     | CAS-No    | Weight % | Classification (Reg. 1272/2008) | REACH Registration Number |
|----------------|-----------|-----------|----------|---------------------------------|---------------------------|
| Sulphuric acid | 231-639-5 | 7664-93-9 | 2        | Skin Corr. 1A (H314)            | -                         |

### GHS / CLP - GHS - Classification

Not dangerous

### 2.3 Other information

A safety datasheet follows for all potentially hazardous components – all other components are non-hazardous.

**TRANSPORT INFORMATION**

|                    |                     |
|--------------------|---------------------|
| <b><u>DOT</u></b>  | Not dangerous goods |
| <b><u>IATA</u></b> | Not dangerous goods |
| <b><u>ADR</u></b>  | Not dangerous goods |

# Safety Data Sheet

Issuing date No data available

Revision Date 24-Dec-2019

Version 3

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** 5X Assay Diluent B  
**Recommended use** For research use only  
  
**Supplier Address** Abcam Inc  
 1 Kendall Square, Ste 341  
 Cambridge, MA 02139-1517  
 USA  
 Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
 Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)  
  
**E-mail address** technical@abcam.com  
  
**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

|       |                |
|-------|----------------|
| Ozone | Not applicable |
|-------|----------------|

### GHS Label elements, including precautionary statements

Not dangerous

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing

### Other information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical Name               | CAS-No     | Weight % | Classification (Reg. 1272/2008)   |
|-----------------------------|------------|----------|---|
| 5-Bromo-5-nitro-1,3-dioxane | 30007-47-7 | <0.1     | STOT RE 2 (H373)<br>Skin Corr. 1A (H314)<br>Acute Tox. 4 (H302)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) |

For the full text of the H-Statements mentioned in this Section, see Section 16

#### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye contact</b>        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. |
| <b>Skin contact</b>       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                                    |
| <b>Inhalation</b>         | Move to fresh air.   |
| <b>Ingestion</b>          | Clean mouth with water. Drink plenty of water.   |
| <b>Notes to physician</b> | Treat symptomatically.   |

#### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable properties</b>                                  | Not flammable.   |
| <b>Flash point</b>   | not determined   |
| <b>Suitable extinguishing media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| <b>Explosion Data</b>  |  |
| <b>Sensitivity to Mechanical Impact</b>                      | None.  |
| <b>Sensitivity to Static Discharge</b>                       | None.  |
| <b>Protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                                       |
| <b>Environmental precautions</b> | Try to prevent the material from entering drains or water courses. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so.              |
| <b>Methods for cleaning up</b>   | Pick up and transfer to properly labeled containers.               |

#### 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>Advice on safe handling</b>               | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Technical measures/Storage conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

|                                      |   |
|--------------------------------------|---|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.   |
| <b>Engineering measures</b>          | Showers<br>Eyewash stations<br>Ventilation systems  |
| <b>Personal protective equipment</b> |   |
| <b>Eye/face protection</b>           | Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).   |
| <b>Skin and body protection</b>      | Long sleeved clothing. Protective gloves.   |
| <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>Hygiene measures</b>              | Handle in accordance with good industrial hygiene and safety practice.  |

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |                              |                                    |                           |
|----------------------------------|------------------------------|------------------------------------|---------------------------|
| <b>Appearance</b>                | Pale yellow, yellow.         | <b>Odor</b>                        | No information available. |
| <b>Odor Threshold</b>            | No information available     | <b>Physical State @20°C</b>        | Liquid                    |
| <b>pH</b>                        | No information available 6.9 | <b>Autoignition temperature</b>    | No information available  |
| <b>Flash point</b>               | No information available     | <b>Boiling point/boiling range</b> | No information available  |
| <b>Decomposition temperature</b> | No information available     | <b>Flammability Limits in Air</b>  | No information available  |
| <b>Melting point/range</b>       | No information available     | <b>solubility</b>                  | No information available. |
| <b>Explosion limits</b>          | No information available     | <b>Vapor Pressure @20°C (kPa)</b>  | No information available  |
| <b>Specific Gravity</b>          | No data available            | <b>VOC Content(%)</b>              | Not applicable            |
| <b>Evaporation rate</b>          | No information available     |                                    |                           |
| <b>Vapor density</b>             | No data available            |                                    |                           |

**10. STABILITY AND REACTIVITY**

|   |  |
|---|--|
| <b>Stability</b>                        | Stable under recommended storage conditions. |
| <b>Incompatible products</b>            | None known based on information supplied.    |
| <b>Conditions to avoid</b>              | None known based on information supplied.    |
| <b>Hazardous decomposition products</b> | None known based on information supplied.    |
| <b>Hazardous polymerization</b>         | Hazardous polymerization does not occur.     |

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product Information**                      Product does not present an acute toxicity hazard based on known or supplied information

**Chronic toxicity**

**Target Organ Effects**                      None known.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**                      This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging**                      Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT**    Not dangerous goods

**IATA**    Not dangerous goods

**ADR**    Not dangerous goods

**15. REGULATORY INFORMATION**

**U.S. 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**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | no |
| <b>Chronic Health Hazard</b>             | no |
| <b>Fire Hazard</b>                       | no |
| <b>Sudden Release of Pressure Hazard</b> | no |
| <b>Reactive Hazard</b>                   | no |

**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.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations****International Regulations****WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed H314 - Causes severe skin burns and eye damage H373 - May cause damage to organs through prolonged or repeated exposure H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects

**Revision Date**

24-Dec-2019

**Revision Note**

No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**

# Safety Data Sheet

Issuing date No data available

Revision Date 24-Dec-2019

Version 3

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** Assay Diluent A

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

**E-mail address** technical@abcam.com

**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

|       |                |
|-------|----------------|
| Ozone | Not applicable |
|-------|----------------|

### GHS Label elements, including precautionary statements

Not dangerous

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing

### Other information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical Name | CAS-No     | Weight % | Classification (Reg. 1272/2008)  |
|---------------|------------|----------|--|
| Sodium azide  | 26628-22-8 | <0.1     | Acute Tox. 2 (H300)<br>Acute Tox. 1 (H310)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410)<br>(EUH032) |

For the full text of the H-Statements mentioned in this Section, see Section 16



#### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye contact</b>        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. |
| <b>Skin contact</b>       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                                    |
| <b>Inhalation</b>         | Move to fresh air.   |
| <b>Ingestion</b>          | Clean mouth with water. Drink plenty of water.   |
| <b>Notes to physician</b> | Treat symptomatically.   |

#### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable properties</b>                                  | Not flammable.   |
| <b>Flash point</b>   | not determined   |
| <b>Suitable extinguishing media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| <b>Explosion Data</b>  |  |
| <b>Sensitivity to Mechanical Impact</b>                      | None.  |
| <b>Sensitivity to Static Discharge</b>                       | None.  |
| <b>Protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                                       |
| <b>Environmental precautions</b> | Try to prevent the material from entering drains or water courses. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so.              |
| <b>Methods for cleaning up</b>   | Pick up and transfer to properly labeled containers.               |

#### 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>Advice on safe handling</b>               | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Technical measures/Storage conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical Name              | ACGIH TLV  | OSHA PEL  | NIOSH IDLH  |
|----------------------------|--|---|---|
| Sodium azide<br>26628-22-8 | Ceiling: 0.29 mg/m <sup>3</sup> NaN <sub>3</sub><br>Ceiling: 0.11 ppm Hydrazoic acid vapor | (vacated) S*<br>(vacated) Ceiling: 0.1 ppm HN <sub>3</sub><br>(vacated) Ceiling: 0.3 mg/m <sup>3</sup> NaN <sub>3</sub> | Ceiling: 0.1 ppm HN <sub>3</sub><br>Ceiling: 0.3 mg/m <sup>3</sup> NaN <sub>3</sub> |

NIOSH IDLH: *Immediately Dangerous to Life or Health*

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

**Engineering measures**  
Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

**Eye/face protection** Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection** Long sleeved clothing. Protective gloves.

**Respiratory protection** 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.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |                           |                                    |                           |
|----------------------------------|---------------------------|------------------------------------|---------------------------|
| <b>Appearance</b>                | No information available. | <b>Odor</b>                        | No information available. |
| <b>Odor Threshold</b>            | No information available  | <b>Physical State @20°C</b>        | No information available  |
| <b>pH</b>                        | 7.20                      | <b>Autoignition temperature</b>    | No information available  |
| <b>Flash point</b>               | No information available  | <b>Boiling point/boiling range</b> | No information available  |
| <b>Decomposition temperature</b> | No information available  | <b>Flammability Limits in Air</b>  | No information available  |
| <b>Melting point/range</b>       | No information available  | <b>solubility</b>                  | No information available. |
| <b>Explosion limits</b>          | No information available  | <b>Vapor Pressure @20°C (kPa)</b>  | No information available  |
| <b>Specific Gravity</b>          | No data available         | <b>VOC Content(%)</b>              | Not applicable            |
| <b>Evaporation rate</b>          | No information available  |                                    |                           |
| <b>Vapor density</b>             | No data available         |                                    |                           |

**10. STABILITY AND REACTIVITY**

**Stability** Stable under recommended storage conditions.

**Incompatible products** None known based on information supplied.

**Conditions to avoid** None known based on information supplied.

**Hazardous decomposition products** None known based on information supplied.

**Hazardous polymerization** Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information

| Chemical Name | LD50 Oral        | LD50 Dermal                          | LC50 Inhalation |
|---------------|------------------|--------------------------------------|-----------------|
| Sodium azide  | 27 mg/kg ( Rat ) | 50 mg/kg ( Rat ) 20 mg/kg ( Rabbit ) |                 |

**Chronic toxicity**

**Target Organ Effects** None known.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical Name | Toxicity to algae | Toxicity to fish  | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|---------------|-------------------|---|----------------------------|---|
| Sodium azide  |                   | 0.8: 96 h Oncorhynchus mykiss mg/L LC50 0.7: 96 h Lepomis macrochirus mg/L LC50 5.46: 96 h Pimephales promelas mg/L LC50 flow-through |                            |   |

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging** Do not re-use empty containers.

**US EPA Waste Number** P105

| Chemical Name             | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|---------------------------|--------------------------------------|------------------------|------------------------|------------------------|
| Sodium azide - 26628-22-8 |                                      | P105                   |                        |                        |

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name | California Hazardous Waste Status |
|---------------|-----------------------------------|
| Sodium azide  | Ignitable Reactive                |

**14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods

**IATA** Not dangerous goods

**ADR** Not dangerous goods

**15. REGULATORY INFORMATION**

**U.S. 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**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | no |
| <b>Chronic Health Hazard</b>             | no |
| <b>Fire Hazard</b>                       | no |
| <b>Sudden Release of Pressure Hazard</b> | no |
| <b>Reactive Hazard</b>                   | no |

**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.

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ                                     |
|---------------|--------------------------|------------------------------------|--|
| Sodium azide  | 1000 lb                  | 1000 lb                            | RQ 1000 lb final RQ RQ 454 kg final RQ |

**U.S. State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
| Sodium azide  | X             | X          | X            |          | X            |

**International Regulations**

**WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3**

H300 + H310 - Fatal if swallowed or in contact with skin H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects

**Revision Date**

24-Dec-2019

**Revision Note**

No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**

# Safety Data Sheet

Issuing date No data available

Revision Date 24-Dec-2019

Version 3

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** TMB One-Step Substrate Reagent

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

**E-mail address** technical@abcam.com

**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

|       |                |
|-------|----------------|
| Ozone | Not applicable |
|-------|----------------|

### GHS Label elements, including precautionary statements

Not dangerous

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing

### Other information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical Name | CAS-No     | Weight % | Classification (Reg. 1272/2008)                                 |
|---------------|------------|----------|---|
| TMB           | 54827-17-7 | 0.1-1    | STOT SE 3 (H335)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319) |

For the full text of the H-Statements mentioned in this Section, see Section 16

#### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye contact</b>        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. |
| <b>Skin contact</b>       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                                    |
| <b>Inhalation</b>         | Move to fresh air.   |
| <b>Ingestion</b>          | Clean mouth with water. Drink plenty of water.   |
| <b>Notes to physician</b> | Treat symptomatically.   |

#### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable properties</b>                                  | Not flammable.   |
| <b>Flash point</b>   | not determined   |
| <b>Suitable extinguishing media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| <b>Explosion Data</b>  |  |
| <b>Sensitivity to Mechanical Impact</b>                      | None.  |
| <b>Sensitivity to Static Discharge</b>                       | None.  |
| <b>Protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                                       |
| <b>Environmental precautions</b> | Try to prevent the material from entering drains or water courses. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so.              |
| <b>Methods for cleaning up</b>   | Pick up and transfer to properly labeled containers.               |

#### 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>Advice on safe handling</b>               | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Technical measures/Storage conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

|                                      |   |
|--------------------------------------|---|
| <b>Exposure Guidelines</b>           | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.   |
| <b>Engineering measures</b>          | Showers<br>Eyewash stations<br>Ventilation systems  |
| <b>Personal protective equipment</b> |   |
| <b>Eye/face protection</b>           | Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).   |
| <b>Skin and body protection</b>      | Long sleeved clothing. Protective gloves.   |
| <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>Hygiene measures</b>              | Handle in accordance with good industrial hygiene and safety practice.  |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                                  |                              |                                    |                           |
|----------------------------------|------------------------------|------------------------------------|---------------------------|
| <b>Appearance</b>                | Colorless, yellow.           | <b>Odor</b>                        | No information available. |
| <b>Odor Threshold</b>            | No information available     | <b>Physical State @20°C</b>        | Liquid                    |
| <b>pH</b>                        | No information available 3.7 | <b>Autoignition temperature</b>    | No information available  |
| <b>Flash point</b>               | No information available     | <b>Boiling point/boiling range</b> | No information available  |
| <b>Decomposition temperature</b> | No information available     | <b>Flammability Limits in Air</b>  | No information available  |
| <b>Melting point/range</b>       | No information available     | <b>solubility</b>                  | No information available. |
| <b>Explosion limits</b>          | No information available     | <b>Vapor Pressure @20°C (kPa)</b>  | No information available  |
| <b>Specific Gravity</b>          | No data available            | <b>VOC Content(%)</b>              | Not applicable            |
| <b>Evaporation rate</b>          | No information available     |                                    |                           |
| <b>Vapor density</b>             | No data available            |                                    |                           |

## 10. STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Stability</b>                        | Stable under recommended storage conditions. |
| <b>Incompatible products</b>            | None known based on information supplied.    |
| <b>Conditions to avoid</b>              | None known based on information supplied.    |
| <b>Hazardous decomposition products</b> | None known based on information supplied.    |
| <b>Hazardous polymerization</b>         | Hazardous polymerization does not occur.     |



**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product Information**                      Product does not present an acute toxicity hazard based on known or supplied information

**Chronic toxicity**

**Target Organ Effects**                      None known.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods**                      This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging**                      Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT**    Not dangerous goods

**IATA**    Not dangerous goods

**ADR**    Not dangerous goods

**15. REGULATORY INFORMATION**

**U.S. 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**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | no |
| <b>Chronic Health Hazard</b>             | no |
| <b>Fire Hazard</b>                       | no |
| <b>Sudden Release of Pressure Hazard</b> | no |
| <b>Reactive Hazard</b>                   | no |

**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.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations****International Regulations****WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3**

H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation

**Revision Date**

24-Dec-2019

**Revision Note**

No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**

# Safety Data Sheet

Issuing date No data available

Revision Date 24-Dec-2019

Version 3

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** 200X HRP-Streptavidin Concentrate

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

**E-mail address** technical@abcam.com

**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

|       |                |
|-------|----------------|
| Ozone | Not applicable |
|-------|----------------|

### GHS Label elements, including precautionary statements

Not dangerous

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing

### Other information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical Name | CAS-No  | Weight % | Classification (Reg. 1272/2008) |
|---------------|---------|----------|---------------------------------|
| Glycerol      | 56-81-5 | 30-60    | -                               |

For the full text of the H-Statements mentioned in this Section, see Section 16

#### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye contact</b>        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. |
| <b>Skin contact</b>       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                                    |
| <b>Inhalation</b>         | Move to fresh air.   |
| <b>Ingestion</b>          | Clean mouth with water. Drink plenty of water.   |
| <b>Notes to physician</b> | Treat symptomatically.   |

#### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable properties</b>                                  | Not flammable.   |
| <b>Flash point</b>   | not determined   |
| <b>Suitable extinguishing media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| <b>Explosion Data</b>  |  |
| <b>Sensitivity to Mechanical Impact</b>                      | None.  |
| <b>Sensitivity to Static Discharge</b>                       | None.  |
| <b>Protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                                       |
| <b>Environmental precautions</b> | Try to prevent the material from entering drains or water courses. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so.              |
| <b>Methods for cleaning up</b>   | Pick up and transfer to properly labeled containers.               |

#### 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>Advice on safe handling</b>               | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Technical measures/Storage conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical Name       | ACGIH TLV                      | OSHA PEL  | NIOSH IDLH |
|---------------------|--------------------------------|---|------------|
| Glycerol<br>56-81-5 | TWA: 10 mg/m <sup>3</sup> mist | TWA: 15 mg/m <sup>3</sup> mist, total particulate TWA: 5 mg/m <sup>3</sup> mist, respirable fraction (vacated) TWA: 10 mg/m <sup>3</sup> mist, total particulate (vacated) TWA: 5 mg/m <sup>3</sup> mist, respirable fraction |            |

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

**Engineering measures** Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

**Eye/face protection** Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection** Long sleeved clothing. Protective gloves.

**Respiratory protection** 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.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |                              |                                    |                           |
|----------------------------------|------------------------------|------------------------------------|---------------------------|
| <b>Appearance</b>                | yellow, Orange.              | <b>Odor</b>                        | No information available. |
| <b>Odor Threshold</b>            | No information available     | <b>Physical State @20°C</b>        | Liquid                    |
| <b>pH</b>                        | No information available 7.0 | <b>Autoignition temperature</b>    | No information available  |
| <b>Flash point</b>               | No information available     | <b>Boiling point/boiling range</b> | No information available  |
| <b>Decomposition temperature</b> | No information available     | <b>Flammability Limits in Air</b>  | No information available  |
| <b>Melting point/range</b>       | No information available     | <b>solubility</b>                  | No information available. |
| <b>Explosion limits</b>          | No information available     | <b>Vapor Pressure @20°C (kPa)</b>  | No information available  |
| <b>Specific Gravity</b>          | No data available            | <b>VOC Content(%)</b>              | 50                        |
| <b>Evaporation rate</b>          | No information available     |                                    |                           |
| <b>Vapor density</b>             | No data available            |                                    |                           |

**10. STABILITY AND REACTIVITY**

**Stability** Stable under recommended storage conditions.

**Incompatible products** None known based on information supplied.

**Conditions to avoid** None known based on information supplied.

**Hazardous decomposition products** None known based on information supplied.

**Hazardous polymerization** Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information

| Chemical Name | LD50 Oral          | LD50 Dermal            | LC50 Inhalation |
|---------------|--------------------|------------------------|-----------------|
| Glycerol      | Rat - 12,600 mg/kg | Rabbit - >10,000 mg/kg |                 |

**Chronic toxicity**

**Target Organ Effects** None known.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical Name        | Toxicity to algae | Toxicity to fish                                   | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|----------------------|-------------------|--|----------------------------|---|
| Glycerol             |                   | 51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static |                            | 500: 24 h Daphnia magna mg/L EC50                   |
| <b>Chemical Name</b> |                   | <b>log Pow</b>                                     |                            |   |
| Glycerol             |                   | 0  |                            |   |

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging** Do not re-use empty containers.

**14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods

**IATA** Not dangerous goods

**ADR** Not dangerous goods

**15. REGULATORY INFORMATION**

**U.S. 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

|  |    |
|--|----|
| <b>Chronic Health Hazard</b>             | no |
| <b>Fire Hazard</b>                       | no |
| <b>Sudden Release of Pressure Hazard</b> | no |
| <b>Reactive Hazard</b>                   | no |

**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.

**U.S. State Regulations****California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---------------|---------------|------------|--------------|----------|--------------|
| Glycerol      | X             | X          | X            |          | X            |

**International Regulations**

| Chemical Name | Carcinogen Status | Exposure limits                  |
|---------------|-------------------|----------------------------------|
| Glycerol      |                   | Mexico: TWA 10 mg/m <sup>3</sup> |

**WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**16. OTHER INFORMATION**

**Revision Date** 24-Dec-2019  
**Revision Note** No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**

# Safety Data Sheet

Issuing date No data available

Revision Date 24-Dec-2019

Version 5

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** Stop Solution

**Recommended use** For research use only

**Supplier Address** Abcam Inc  
1 Kendall Square, Ste 341  
Cambridge, MA 02139-1517  
USA  
Tel: (617)225-2272 or 888-77-ABCAM (22226) (US toll free)  
Fax: (866) 739-9884 or (866) 457-9616 (both US toll free)

**E-mail address** technical@abcam.com

**Emergency telephone** +1 866 928 0789 (Toll free) /+1 202 464 2554

## 2. HAZARDS IDENTIFICATION

### GHS - Classification

|       |                |
|-------|----------------|
| Ozone | Not applicable |
|-------|----------------|

### GHS Label elements, including precautionary statements

Not dangerous

### Precautionary Statements - EU (§28, 1272/2008)

P280 - Wear protective gloves/ protective clothing

### Other information

No information available

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

| Chemical Name  | CAS-No    | Weight % | Classification (Reg. 1272/2008) |
|----------------|-----------|----------|---------------------------------|
| Sulphuric acid | 7664-93-9 | 1-5      | Skin Corr. 1A (H314)            |

For the full text of the H-Statements mentioned in this Section, see Section 16



#### 4. FIRST AID MEASURES

|                           |  |
|---------------------------|--|
| <b>Eye contact</b>        | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. |
| <b>Skin contact</b>       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.                                    |
| <b>Inhalation</b>         | Move to fresh air.   |
| <b>Ingestion</b>          | Clean mouth with water. Drink plenty of water.   |
| <b>Notes to physician</b> | Treat symptomatically.   |

#### 5. FIRE-FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flammable properties</b>                                  | Not flammable.   |
| <b>Flash point</b>   | not determined   |
| <b>Suitable extinguishing media</b>                          | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  |
| <b>Explosion Data</b>  |  |
| <b>Sensitivity to Mechanical Impact</b>                      | None.  |
| <b>Sensitivity to Static Discharge</b>                       | None.  |
| <b>Protective equipment and precautions for firefighters</b> | As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear to prevent contact with skin and eyes. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>Personal precautions</b>      | Ensure adequate ventilation.                                       |
| <b>Environmental precautions</b> | Try to prevent the material from entering drains or water courses. |
| <b>Methods for containment</b>   | Prevent further leakage or spillage if safe to do so.              |
| <b>Methods for cleaning up</b>   | Pick up and transfer to properly labeled containers.               |

#### 7. HANDLING AND STORAGE

|  |  |
|--|--|
| <b>Advice on safe handling</b>               | Handle in accordance with good industrial hygiene and safety practice.   |
| <b>Technical measures/Storage conditions</b> | Keep containers tightly closed in a dry, cool and well-ventilated place. |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Exposure Guidelines** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

| Chemical Name               | ACGIH TLV                                    | OSHA PEL   | NIOSH IDLH   |
|-----------------------------|--|--|--|
| Sulphuric acid<br>7664-93-9 | TWA: 0.2 mg/m <sup>3</sup> thoracic fraction | TWA: 1 mg/m <sup>3</sup><br>(vacated) TWA: 1 mg/m <sup>3</sup> | IDLH: 15 mg/m <sup>3</sup><br>TWA: 1 mg/m <sup>3</sup> |

NIOSH IDLH: *Immediately Dangerous to Life or Health*

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

**Engineering measures** Showers  
Eyewash stations  
Ventilation systems

**Personal protective equipment**

**Eye/face protection** Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin and body protection** Long sleeved clothing. Protective gloves.

**Respiratory protection** 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.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

|                                  |                              |                                    |                           |
|----------------------------------|------------------------------|------------------------------------|---------------------------|
| <b>Appearance</b>                | No information available.    | <b>Odor</b>                        | No information available. |
| <b>Odor Threshold</b>            | No information available     | <b>Physical State @20°C</b>        | Liquid                    |
| <b>pH</b>                        | No information available 0.5 | <b>Autoignition temperature</b>    | No information available  |
| <b>Flash point</b>               | No information available     | <b>Boiling point/boiling range</b> | No information available  |
| <b>Decomposition temperature</b> | No information available     | <b>Flammability Limits in Air</b>  | No information available  |
| <b>Melting point/range</b>       | No information available     | <b>solubility</b>                  | No information available. |
| <b>Explosion limits</b>          | No information available     | <b>Vapor Pressure @20°C (kPa)</b>  | No information available  |
| <b>Specific Gravity</b>          | No data available            | <b>VOC Content(%)</b>              | Not applicable            |
| <b>Evaporation rate</b>          | No information available     |                                    |                           |
| <b>Vapor density</b>             | No data available            |                                    |                           |

**10. STABILITY AND REACTIVITY**

**Stability** Stable under recommended storage conditions.

**Incompatible products** None known based on information supplied.

**Conditions to avoid** None known based on information supplied.

**Hazardous decomposition products** None known based on information supplied.

**Hazardous polymerization** Hazardous polymerization does not occur.

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product Information** Product does not present an acute toxicity hazard based on known or supplied information

| Chemical Name  | LD50 Oral          | LD50 Dermal | LC50 Inhalation                                       |
|----------------|--------------------|-------------|---|
| Sulphuric acid | 2140 mg/kg ( Rat ) |             | 510 mg/m <sup>3</sup> ( Rat ) 2 h 347 ppm ( Rat ) 1 h |

**Chronic toxicity**

| Chemical Name  | ACGIH | IARC    | NTP   | OSHA |
|----------------|-------|---------|-------|------|
| Sulphuric acid | A2    | Group 1 | Known | X    |

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A2 - Suspected Human Carcinogen

**IARC: (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

**NTP: (National Toxicity Program)**

Known - Known Carcinogen

**OSHA: (Occupational Safety & Health Administration)**

X - Present

**Target Organ Effects** None known.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

| Chemical Name  | Toxicity to algae | Toxicity to fish                             | Toxicity to microorganisms | Toxicity to daphnia and other aquatic invertebrates |
|----------------|-------------------|--|----------------------------|---|
| Sulphuric acid |                   | 500: 96 h Brachydanio rerio mg/L LC50 static |                            | 29: 24 h Daphnia magna mg/L EC50                    |

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal methods** This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated packaging** Do not re-use empty containers.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

| Chemical Name  | California Hazardous Waste Status |
|----------------|-----------------------------------|
| Sulphuric acid | Toxic Corrosive                   |

**14. TRANSPORT INFORMATION**

**DOT** Not dangerous goods

**IATA** Not dangerous goods

**ADR** Not dangerous goods

**15. REGULATORY INFORMATION**

**U.S. Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

| Chemical Name  | CAS-No    | Weight % | SARA 313 - Threshold Values % |
|----------------|-----------|----------|-------------------------------|
| Sulphuric acid | 7664-93-9 | 1.96     | 1.0                           |

**SARA 311/312 Hazard Categories**

|  |    |
|--|----|
| <b>Acute Health Hazard</b>               | no |
| <b>Chronic Health Hazard</b>             | no |
| <b>Fire Hazard</b>                       | no |
| <b>Sudden Release of Pressure Hazard</b> | no |
| <b>Reactive Hazard</b>                   | no |

**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).

| Chemical Name  | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|----------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Sulphuric acid | 1000 lb                     |                        |                           | X                          |

**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.

| Chemical Name  | Hazardous Substances RQs | Extremely Hazardous Substances RQs | RQ                                     |
|----------------|--------------------------|------------------------------------|--|
| Sulphuric acid | 1000 lb                  | 1000 lb                            | RQ 1000 lb final RQ RQ 454 kg final RQ |

**U.S. State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals:

| Chemical Name  | CAS-No    | California Prop. 65 |
|----------------|-----------|---------------------|
| Sulphuric acid | 7664-93-9 | Carcinogen          |

**U.S. State Right-to-Know Regulations**

| Chemical Name  | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|----------------|---------------|------------|--------------|----------|--------------|
| Sulphuric acid | X             | X          | X            | X        | X            |

**International Regulations**

| Chemical Name  | Carcinogen Status | Exposure limits                 |
|----------------|-------------------|---------------------------------|
| Sulphuric acid | A2                | Mexico: TWA 1 mg/m <sup>3</sup> |

**WHMIS Note:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3**

H314 - Causes severe skin burns and eye damage

**Revision Date**

24-Dec-2019

**Revision Note**

No information available.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of MSDS**