

**Safety Data Sheet (SDS)**

Printing date -----

Version 1

Reviewed on -----

**1. Product Identifier**

Product Name: Human TNF-alpha ELISA kit

Product Use: Research Laboratory Use

Manufacturer/Supplier: CytoDiagnostics Inc.

919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: (866) 344-3954

Web: <http://www.cytodiagnosics.com>Information and Support: [customer\\_service@cytodiagnosics.com](mailto:customer_service@cytodiagnosics.com)

Components: HRP-Streptavidin Conjugate (contains Glycerol)  
 Assay Diluent (contains Proclin 300 Mixture)  
 Detection Diluent (contains Proclin 300 Mixture)  
 Wash Buffer Concentrate (contains TWEEN™ 20)  
 One-step TMB Substrate (contains Hydrogen peroxide and TMB)  
 Stop Solution (contains Sulfuric Acid)

Chemical Name	EC-No	CAS-No	Weight %	Classification (Reg. 1272/2008)
TWEEN™ 20	500-018-3	9005-64-5	<0.1	-
Glycerol	200-289-5	56-81-5	40	-
Proclin™ 300 (Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-One)	911-418-6	55965-84-9	< 0.1	Aquatic Chronic 4 (H413) Acute Tox. 3 (H301) Acute Tox. 2 (H330) (H310) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
TMB	-	54827-17-7	<0.1	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)
Hydrogen peroxide	-	7722-84-1	0.1-1	STOT SE 3 (H335) Skin Corr. 1A (H314) Acute Tox. 4 (H302) Acute Tox. 4 (H332) Aquatic Chronic 3 (H412) Ox. Liq. 1 (H271)

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

**2. GHS / CLP - GHS - Classification**

**3. Signal Word**

Warning

DANGER

**4. DSD / DPD - Classification according to EU Directives 67/548/EEC or 1999/45/EC**
*Classification*

C - Corrosive

Xi - Irritant

*R-phrase(s)*

R35 - Causes severe burns

R36/38 - Irritating to eyes and skin

R43 - May cause sensitization by skin contact

*S-phrase(s)*

S24 - Avoid contact with skin

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection

**4. Other information**

A safety data sheet follows for all potentially hazardous components—all other components are non-hazardous.

**5. Transport Information**

DOT	Not dangerous goods
IATA	Not dangerous goods
ADR	Not dangerous goods

See additional safety data sheets.

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**1. Chemical and Company Identification**

Product Name: HRP-Streptavidin Conjugate

Product Use: Research Laboratory Use

Manufacturer/Supplier: CytoDiagnostics Inc.

919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: (866) 344-3954

Web: <http://www.cytodiagnosics.com>Information and Support: [customer\\_service@cytodiagnosics.com](mailto:customer_service@cytodiagnosics.com)**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*****Substances***

Not applicable

***Components***

Glycerol; CAS# 56-81-5

*For the full text of the H-Statements mentioned in this Section, see Section 16***4. First Aid Measures*****In case of skin contact:*** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.***In case of ingestion:*** Clean mouth with water. Drink plenty of water.***In case of eye contact:*** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.***If case of inhalation:*** Move to fresh air***Notes to physician:*** Treat symptomatically

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**5. Fire Fighting Measures*****Flammable properties***

Not flammable

***Flash point***

Not determined

***Suitable extinguishing media***

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Explosion Data***

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

***Protective equipment and precautions for firefighters***

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

**6. Accidental Release Measures*****Personal precautions***

Ensure adequate ventilation.

***Environmental precautions***

Try to prevent the material from entering drains or water courses.

***Methods for containment***

Prevent further leakage or spillage if safe to do so.

***Methods for cleaning up***

Pick up and transfer to properly labeled containers.

**7. Handling and Storage*****Advice on safe handling***

Handle in accordance with good industrial hygiene and safety practice.

***Technical measures/Storage conditions***

Keep containers tightly closed in a dry, cool, and well-ventilated place.

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**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 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.2d962 (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.

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**9. Physical and Chemical Properties**

Appearance:	no data available	Physical state at 20°C:	Liquid
Odor:	no data available	Vapor pressure:	no data available
Odor threshold:	no data available	Vapor density:	no data available
pH:	no data available	Relative density:	no data available
Melting Point/Freezing point:	no data available	Solubility:	no data available
Boiling point/boiling range:	no data available	Specific Gravity:	no data available
Flash points:	no data available	Auto-ignition temperature:	no data available
Evaporation rates:	no data available	Decomposition temperature:	no data available
Flammability (solid; gas):	no data available	VOC Content (%):	50

**10. Stability and Reactivity**

**Stability:** Stable under recommended storage conditions

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

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

**Hazardous polymerization:** Hazardous polymerization does not occur

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

**11. Toxicological Information**
**Acute Toxicity**

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: Eyes, Kidney, Respiratory system, Skin.

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**12. Ecological Information*****Ecotoxicity***

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

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

**13. Disposal Considerations*****Waste disposal methods***

This material, as supplied, is not a hazardous waste according to Federal regulations (40CFR 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**

<b><i>DOT</i></b>	Not dangerous goods
<b><i>IATA</i></b>	Not dangerous goods
<b><i>ADR</i></b>	Not dangerous goods

**15. Regulatory Information*****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**

This product is for laboratory research purposes, not for diagnostic or therapeutic use in humans or animals.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make independent decisions regarding completeness of the information based on all sources available. Cytodiagnostics Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**End of MSDS**

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**1. Chemical and Company Identification**

Product Name: Assay Diluent

Product Use: Research Laboratory Use

Manufacturer/Supplier: CytoDiagnostics Inc.

919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: (866) 344-3954

Web: <http://www.cytodiagnosics.com>Information and Support: [customer\\_service@cytodiagnosics.com](mailto:customer_service@cytodiagnosics.com)**2. Hazards Identification****Classification of the substance or mixture**

GHS / CLP - REGULATION (EC) No 1272/2008

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1
Ozone	Not applicable

DSD / DPD - Classification according to EU Directives 67/548/EEC or 1999/45/EC

*For the full text of the R-phrases mentioned in this Section, see Section 16*

Symbol(s) Xi – Irritant

R-code(s) Xi;R36/38 – R43

**Label elements**

Signal Word

DANGER

**Hazard statements**

H314 - Causes severe skin burns and eye damage H317 - May cause an allergic skin reaction H319 - Causes serious eye irritation

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

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P310 - Immediately call a POISON CENTER or doctor/ physician

P280 - Wear eye protection/ face protection

**Other information**

No information available



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**3. Composition/ Information on Ingredients****Substances**

Not applicable

**Components**

Proclin™ 300 (Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-One);  
CAS# 55965-84-9

*For the full text of the R-phrases mentioned in this Section, see Section 16*

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

**4. First Aid Measures**

***In case of skin contact:*** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician. Remove and wash contaminated clothing before re-use. Wash off immediately with plenty of water. Wash off immediately with soap and plenty of water

***In case of ingestion:*** Do NOT induce vomiting. Drink plenty of water. Immediate medical attention is not required. Rinse mouth.

***In case of eye contact:*** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.

***If case of inhalation:*** Move to fresh air. If symptoms persist, call a physician.

***Protection of first aiders:*** Use personal protective equipment.

***Notes to physician:*** May cause sensitization of susceptible persons.

**5. Fire Fighting Measures*****Suitable extinguishing media***

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Extinguishing media which shall not be used for safety reasons***

No information available

***Special hazard***

None in particular

***Protective equipment and precautions for firefighters***

As in any fire, wear self-contained breathing apparatus and full protective gear

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**6. Accidental Release Measures*****Personal precautions***

Use personal protective equipment. Avoid contact with the skin and the eyes.

See Section 12 for additional information

***Environmental precautions***

Prevent entry into waterways, sewers, basements, or confined areas. Do not flush into surface water or sanitary sewer system

***Methods and materials for containment and cleaning up***

Soak up with inert absorbent material (e.g., sand, silica gel, acid binder, universal binder, sawdust)

**7. Handling and Storage*****Precautions for safe handling***

Ensure adequate ventilation. Wear personal protective equipment.

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

Keep out of the reach of children. Keep container tightly closed. Keep containers tightly closed in a cool, well-ventilated place.

***Specific end uses***

Specific use(s): No information available

Exposure scenario: No information available

**8. Exposure Controls/Personal Protection*****Control parameters***

Exposure limits: This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Derived No Effect Level (DNEL): No information available

Predicted No Effect Concentration (PNEC): No information available

***Exposure controls***

Engineering measures: Ensure adequate ventilation, especially in confined areas

***Personal protective equipment***

Eye protection: Tightly fitting safety goggles

Hand protection: Protective gloves

Skin and body protection: Long sleeved clothing.

Respiratory protection: No special protective equipment required

Thermal hazards: No information available

Hygiene measures: When using, do not eat, drink, or smoke. Remove and wash contaminated clothing before re-use.

Environmental exposure controls: Do not allow material to contaminate ground water system.

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**9. Physical and Chemical Properties**

Appearance:	no data available	Physical State at 20°C:	Liquid
Odor:	no data available	Vapor pressure:	no data available
Odor threshold:	no data available	Vapor density:	no data available
pH:	no data available	Relative density:	no data available
Melting Point/Freezing point:	no data available	Solubility:	no data available
Boiling point/boiling range:	no data available	Specific Gravity:	no data available
Flash points:	no data available	Auto-ignition temperature:	no data available
Evaporation rates:	no data available	Decomposition temperature:	no data available
Flammability (solid; gas):	no data available	VOC Content (%):	no data available

**10. Stability and Reactivity**

**Reactivity:** No information available

**Chemical stability:** Stable under normal conditions

**Possibility of hazardous reactions:** None under normal processing

**Conditions to avoid:** Heat, flames, and sparks

**Incompatible materials:** None in particular

**Hazardous decomposition products:** None under normal use

**11. Toxicological Information**
**Acute Toxicity**

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Proclin 300	53 mg/kg (Rat)	-	-

**Chronic Toxicity**

Carcinogenicity: This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B)

Target Organ Effects: Eyes. Respiratory system. Skin.

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**12. Ecological Information**

**Ecotoxicity:** Contains no substances known to be hazardous to the environment or that are not degradable in wastewater treatment plants

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility in soil:** No information available

**Results of PBT and vPvB assessment:** No information available

**Other adverse effect:** No information available

**13. Disposal Considerations****Waste from residues / unused products**

Dispose of in accordance with local regulations

**Contaminated packaging**

Empty containers should be taken to an approved waste handling site for recycling or Disposal

**Other information**

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

**14. Transport Information**

<b>IMDG/IMO</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>ADR</b>	Not dangerous goods
<b>RID</b>	Not dangerous goods
<b>ICAO</b>	Not dangerous goods

**15. Regulatory Information****Safety, health and environmental regulations/legislation specific for the substance or mixture**

No information available

**Chemical Safety Assessment**

No information available

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**16. Other information*****Risk Combination Phrases***

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed

R36/38 - Irritating to eyes and skin

***Hazard statements***

H314 - Causes severe skin burns and eye damage

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

This product is for laboratory research purposes, not for diagnostic or therapeutic use in humans or animals.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make independent decisions regarding completeness of the information based on all sources available. Cytodiagnostics Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**End of MSDS**

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**1. Chemical and Company Identification**

Product Name: One-step TMB Substrate

Product Use: Research Laboratory Use

Manufacturer/Supplier: CytoDiagnostics Inc.

919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: (866) 344-3954

Web: <http://www.cytodiagnosics.com>Information and Support: [customer\\_service@cytodiagnosics.com](mailto:customer_service@cytodiagnosics.com)**2. Hazards Identification*****GHS - Classification***

Class 1A Causes severe skin burns and eye damage (H314)

Class 1 Causes serious eye damage (H318)

Class 4 Harmful if swallowed (H302)

Class 4 Harmful if inhaled (H332)

***GHS Label elements, including precautionary statements******Signal Word***

Warning

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

P280 - Wear protective gloves/ protective clothing

***Other information***

No information available

**3. Composition/ Information on Ingredients*****Substances***

Not applicable

***Components***

TMB; CAS# 54827-17-7

Hydrogen peroxide; CAS# 7722-84-1

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

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**4. First Aid Measures**

***In case of skin contact:*** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

***In case of ingestion:*** Clean mouth with water. Drink plenty of water.

***In case of eye contact:*** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

***If case of inhalation:*** Move to fresh air

***Notes to physician:*** Treat symptomatically

**5. Fire Fighting Measures*****Flammable properties***

Not flammable

***Flash point***

Not determined

***Suitable extinguishing media***

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Explosion Data***

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

***Protective equipment and precautions for firefighters***

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

**6. Accidental Release Measures*****Personal precautions***

Ensure adequate ventilation.

***Environmental precautions***

Try to prevent the material from entering drains or water courses.

***Methods for containment***

Prevent further leakage or spillage if safe to do so.

***Methods for cleaning up***

Pick up and transfer to properly labeled containers.

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**7. Handling and Storage**
***Advice on safe handling***

Handle in accordance with good industrial hygiene and safety practice.

***Technical measures/Storage conditions***

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
Hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup> (vacated) TWA: 1 ppm (vacated) TWA: 1.4 mg/m <sup>3</sup>	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>

***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.



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**9. Physical and Chemical Properties**

Appearance:	no data available	Physical State at 20°C:	Liquid
Odor:	no data available	Vapor pressure:	no data available
Odor threshold:	no data available	Vapor density:	no data available
pH:	3.3 – 3.8	Relative density:	no data available
Melting Point/Freezing point:	no data available	Solubility:	no data available
Boiling point/boiling range:	no data available	Specific Gravity:	no data available
Flash points:	no data available	Auto-ignition temperature:	no data available
Evaporation rates:	no data available	Decomposition temperature:	no data available
Flammability (solid; gas):	no data available	VOC Content (%):	not applicable

**10. Stability and Reactivity**

**Stability:** Stable under recommended storage conditions

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

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

**Hazardous polymerization:** Hazardous polymerization does not occur

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

**11. Toxicological Information**
**Acute Toxicity**

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

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrogen peroxide	801 mg/kg (Rat)	4060 mg/kg (Rat) 2000 mg/kg (Rabbit)	2 mg/L (Rat) 4 h

**Chronic Toxicity**

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide	A3	Group 3	-	-

**Chronic Toxicity**

Target Organ Effects: None known.

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**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 daphnia and other aquatic invertebrates
Hydrogen peroxide	2.5: 72 h <i>Chlorella vulgaris</i> mg/L EC50	16.4: 96 h <i>Pimephales promelas</i> mg/L LC50 18-56: 96 h <i>Lepomis macrochirus</i> mg/L LC50 static 10.0-32.0: 96 h <i>Oncorhynchus mykiss</i> mg/L LC50 static	7.7: 24 h <i>Daphnia magna</i> mg/L EC50 18 - 32: 48 h <i>Daphnia magna</i> mg/L EC50 Static

**13. Disposal Considerations**
**Waste disposal methods**

Dispose of in accordance with federal, state, and local regulations

**Contaminated packaging**

Do not re-use empty containers

Chemical Name	California Hazardous Waste Status
Hydrogen peroxide	Toxic Corrosive Ignitable Reactive

**14. Transport Information**

<b>DOT</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>ADR</b>	Not dangerous goods

**15. Regulatory Information**
**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

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**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  
H314 - Causes severe skin burns and eye damage H302 + H332 - Harmful if swallowed or if inhaled H412  
- Harmful to aquatic life with long lasting effects H271 - May cause fire or explosion; strong oxidizer

This product is for laboratory research purposes, not for diagnostic or therapeutic use in humans or animals.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make independent decisions regarding completeness of the information based on all sources available. Cytodiagnostics Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**End of MSDS**

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**1. Chemical and Company Identification**

Product Name: Stop Solution

Product Use: Research Laboratory Use

Manufacturer/Supplier: CytoDiagnostics Inc.

919 Fraser Drive, Unit 11, Burlington, Ontario, Canada, L7L 4X8

Phone: (866) 344-3954

Web: <http://www.cytodiagnostics.com>Information and Support: [customer\\_service@cytodiagnostics.com](mailto:customer_service@cytodiagnostics.com)**2. Hazards Identification****GHS - Classification**

Class 1A Causes severe skin burns and eye damage (H314)

Class 1 Causes serious eye damage (H318)

Class 1 Corrosive to metals (H290)

**GHS Label elements, including precautionary statements****Signal Word**

Warning

Corrosive

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

P280 - Wear protective gloves/ protective clothing

**Other information**

No information available

**3. Composition/ Information on Ingredients****Substances**

Not applicable

**Components**

Sulphuric acid; CAS# 7664-93-9

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

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**4. First Aid Measures**

***In case of skin contact:*** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

***In case of ingestion:*** Clean mouth with water. Drink plenty of water.

***In case of eye contact:*** Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes.

***If case of inhalation:*** Move to fresh air

***Notes to physician:*** Treat symptomatically

**5. Fire Fighting Measures*****Flammable properties***

Not flammable

***Flash point***

Not determined

***Suitable extinguishing media***

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

***Explosion Data***

Sensitivity to Mechanical Impact: None

Sensitivity to Static Discharge: None

***Protective equipment and precautions for firefighters***

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

**6. Accidental Release Measures*****Personal precautions***

Ensure adequate ventilation.

***Environmental precautions***

Try to prevent the material from entering drains or water courses.

***Methods for containment***

Prevent further leakage or spillage if safe to do so.

***Methods for cleaning up***

Pick up and transfer to properly labeled containers.

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**7. Handling and Storage*****Advice on safe handling***

Handle in accordance with good industrial hygiene and safety practice.

***Technical measures/Storage conditions***

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 7664-93-9	TWA: 0.2 mg/m <sup>3</sup> thoracic fraction	TWA: 1 mg/m <sup>3</sup> (vacated) TWA: 1 mg/m <sup>3</sup>	IDLH: 15 mg/m <sup>3</sup> 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.2d962 (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.

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**9. Physical and Chemical Properties**

Appearance:	Colorless	Physical State at 20°C:	Liquid
Odor:	no data available	Vapor pressure:	no data available
Odor threshold:	no data available	Vapor density:	no data available
pH:	1.2 at 5 g/L	Relative density:	no data available
Melting Point/Freezing point:	no data available	Solubility:	no data available
Boiling point/boiling range:	no data available	Specific Gravity:	no data available
Flash points:	no data available	Auto-ignition temperature:	no data available
Evaporation rates:	no data available	Decomposition temperature:	no data available
Flammability (solid; gas):	no data available	VOC Content (%):	not applicable

**10. Stability and Reactivity**

**Stability:** Stable under recommended storage conditions

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

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

**Hazardous polymerization:** Hazardous polymerization does not occur

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

**11. Toxicological Information**
**Acute Toxicity**

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

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**Chronic Toxicity**

Target Organ Effects: Eyes, Respiratory system, Skin, Teeth

**12. Ecological Information**
**Ecotoxicity**

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

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

**13. Disposal Considerations**
**Waste disposal methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40CFR 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

Chemical Name	California Hazardous Waste Status
Sulphuric acid	Toxic Corrosive

**14. Transport Information**

<b>DOT</b>	Not dangerous goods
<b>IATA</b>	Not dangerous goods
<b>ADR</b>	Not dangerous goods

**15. Regulatory Information**
**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



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

H314 - Causes severe skin burns and eye damage

This product is for laboratory research purposes, not for diagnostic or therapeutic use in humans or animals.

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Users should make independent decisions regarding completeness of the information based on all sources available. Cytodiagnostics Inc. shall not be held liable for any damage resulting from handling or contact with the above product.

**End of MSDS**