



Enabling Arthritis and Inflammation Research Worldwide

6010 HMGB1 Detection Kit

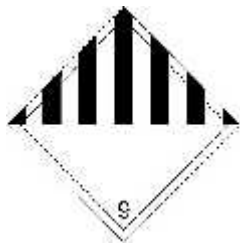
This document contains Safety Data Sheets for the each of the twelve components included in the 6010 HMGB1 Detection Kit. When shipped together as a kit, the following shipping declaration may be used:

UN Number: 3316

Proper Shipping Name: Chemical kit

Packing Group: III

Class: 9



Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 16, 2018

Revision: November 16, 2018

1 Identification

- **Product identifier**
- **Trade name:** HMGB1 Detection Kit Standard
- **Product code:** 60101
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:** None in reportable quantities.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

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- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.
- **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture** No relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
For large spills, wear protective clothing.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
Wipe up small spills with paper towel and discard.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Open and handle receptacle with care.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** No relevant information available.
- **Specific end use(s)** No relevant information available.

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Safety Data Sheet

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Trade name: HMGB1 Detection Kit Standard

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8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties

· Information on basic physical and chemical properties

- **Appearance:**
 - **Form:** Liquid
 - **Color:** Clear
- **Odor:** Nearly odorless
- **Odor threshold:** Not determined.

- **pH-value:** Neutral
- **Melting point/Melting range:** 0 °C (32 °F)
- **Boiling point/Boiling range:** 100 °C (212 °F)

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits**
 - **Lower:** Not determined.

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Upper: · Oxidizing properties:	Not determined. Non-oxidizing.
· Vapor pressure:	Not determined.
· Density: Relative density: Vapor density: Evaporation rate:	1 Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity Dynamic: Kinematic:	Not determined. Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Chlorine
Phosphorus oxides (e.g. P2O5)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: HMGB1 Detection Kit Standard

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· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information**· Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

· Additional ecological information**· General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations**· Waste treatment methods****· Recommendation:**

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packagings

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: HMGB1 Detection Kit Standard

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- | | |
|--|-----------------|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR/RID/ADN, IMDG, IATA · Class | Not regulated. |
| <ul style="list-style-type: none"> · Packing group · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Environmental hazards · Marine pollutant: | No |
| <ul style="list-style-type: none"> · Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

Proposition 65 (California)
Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

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· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL) (Substances not listed.):

All ingredients are listed or exempt.

16 Other information

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.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

· Sources

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 26, 2018

Revision: November 26, 2018

1 Identification

- **Product identifier**
- **Trade name:** Protein Solution
- **Other means of identification:**
60102 - HMGB1 Detection Kit Capture Antibody
90401 - Mammalian Urinary Protein Standard
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:** None in reportable quantities.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation is experienced, consult a doctor.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 26, 2018

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Trade name: Protein Solution

(Cont'd. of page 1)

- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.
- **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture** No relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
For large spills, wear protective clothing.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
Wipe up small spills with paper towel and discard.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Open and handle receptacle with care.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Protein Solution

(Cont'd. of page 2)

- Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** No relevant information available.
- **Further information about storage conditions:** Storage Temperatures: -20 °C.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties
Information on basic physical and chemical properties

- **Appearance:**
 - **Form:** Liquid
 - **Color:** Clear
- **Odor:** Nearly odorless
- **Odor threshold:** Not determined.
- **pH-value:** Neutral
- **Melting point/Melting range:** 0 °C (32 °F)
- **Boiling point/Boiling range:** 100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Auto-ignition temperature:** Not determined.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Protein Solution

(Cont'd. of page 3)

· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	1
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Chlorine
Phosphorus oxides (e.g. P₂O₅)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Protein Solution

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· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

· Germ cell mutagenicity: Based on available data, the classification criteria are not met.**· Carcinogenicity:** Based on available data, the classification criteria are not met.**· Reproductive toxicity:** Based on available data, the classification criteria are not met.**· STOT-single exposure:** Based on available data, the classification criteria are not met.**· STOT-repeated exposure:** Based on available data, the classification criteria are not met.**· Aspiration hazard:** Based on available data, the classification criteria are not met.**12 Ecological information****· Toxicity****· Aquatic toxicity** No relevant information available.**· Persistence and degradability** No relevant information available.**· Bioaccumulative potential:** No relevant information available.**· Mobility in soil:** No relevant information available.**· Additional ecological information****· General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment**· PBT:** Not applicable.**· vPvB:** Not applicable.**· Other adverse effects** No relevant information available.**13 Disposal considerations****· Waste treatment methods****· Recommendation:**

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packagings**· Recommendation:** Disposal must be made according to official regulations.

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 26, 2018

Revision: November 26, 2018

Trade name: Protein Solution

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14 Transport information

- | | |
|---|-----------------|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR/RID/ADN, IMDG, IATA · Class | Not regulated. |
| <ul style="list-style-type: none"> · Packing group · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Environmental hazards · Marine pollutant: | No |
| <ul style="list-style-type: none"> · Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **United States (USA)**
 - **SARA**
- | | |
|--|---------------------------------------|
| <ul style="list-style-type: none"> · Section 302 (extremely hazardous substances): | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · Section 355 (extremely hazardous substances): | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · Section 313 (Specific toxic chemical listings): | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · TSCA (Toxic Substances Control Act) | All ingredients are listed or exempt. |
- **Proposition 65 (California)**
- | | |
|---|-------------------------------------|
| <ul style="list-style-type: none"> · Chemicals known to cause cancer: | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity for females: | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity for males: | None of the ingredients are listed. |
| <ul style="list-style-type: none"> · Chemicals known to cause developmental toxicity: | |

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Protein Solution

(Cont'd. of page 6)

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

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

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed or exempt.

16 Other information

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.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

· **Sources**Website, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 13, 2017

Revision: November 13, 2017

1 Identification· **Product identifier**· **Trade name: Lyophilized Protein in Mammalian Serum/BSA Buffer (up to 1 mg)**· **Other product identifiers:**

2037 - Mouse ELISA IgG Standard
2046 - Rat ELISA IgG Standard
7012 - Mouse ELISA IgG 2nd Antibody
7014 - Monkey/Human ELISA IgG 2nd Antibody
7038 - Monkey/Human ELISA IgA 2nd Antibody
10214 - Rat ELISA IgG 2nd Antibody
20305 - Mouse ELISA IgG3 Standard
20306 - Mouse ELISA IgG1 Standard
20307 - Mouse ELISA IgG2a Standard
20308 - Mouse ELISA IgG2b Standard
20309 - Mouse ELISA IgG2c Standard
20401 - Rat ELISA IgG1 Standard
20403 - Rat ELISA IgG2a Standard
30051 - Total OVA IgE Standard
30053 - Total OVA IgE Detection Antibody
30101 - OVA Serum IgE Standard
30103 - Biotinylated OVA
30111 - OVA IgG Standard
30121 - Mouse Albumin Standard
30123 - Mouse Albumin Detection Antibody
30131 - OVA IgG1 Standard
30151 - OVA IgG2a Standard
30161 - OVA IgG2b Standard
30171 - OVA IgM Standard
30181 - OVA IgA Standard
30201 - Rat Albumin Standard
30281 - Mouse Total IgG3 Standard
30291 - OVA IgG2c Standard
30301 - Mouse Anti-HDM IgG Standard
30311 - ssDNA/dsDNA IgG Standard
30341 - Mouse anti-HDM IgG1 Standard
30351 - Mouse anti-HDM IgG2b Standard
30361 - Mouse anti-HDM IgM Standard
30371 - Mouse Serum Anti-HDM IgE Standard
30421 - ssDNA/dsDNA IgM Standard
60103 - HMGB1 Detection Antibody
60123 - Mouse I Detection Antibody
60133 - Rat I Detection Antibody
60143 - Bovine I Detection Antibody
60153 - Porcine I Detection Antibody
60163 - Rabbit I Detection Antibody
60183 - Type II Detection Antibody
60193 - Canine I Detection Antibody
60213 - Human I Detection Antibody
60271 - Canine CRP Standard
60281 - Feline SAA Standard
60291 - SEA Standard
60301 - SEB Standard
60311 - HDM Sandwich Standard

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Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Lyophilized Protein in Mammalian Serum/BSA Buffer (up to 1 mg)

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60321 - OVA Sandwich Standard
61066 - LPS ELISA IgG Standard
61076 - LPS ELISA IgG1 Standard
61106 - LPS ELISA IgG2a Standard
61116 - LPS ELISA IgG2b Standard
62066 - E-coli ELISA IgG Standard
62076 - E-coli ELISA IgG1 Standard
62106 - E-coli ELISA IgG2a Standard
62116 - E-coli ELISA IgG2b Standard
62141 - Mouse Anti SEB IgG Standard
62151 - Mouse Anti SEB IgG1 Standard
62161 - Mouse Anti SEB IgG2a Standard
62171 - Mouse Anti SEB IgG2b Standard
62181 - Mouse Anti SEA IgG Standard
62191 - Mouse Anti SEA IgG1 Standard
62201 - Mouse Anti SEA IgG2a Standard
62211 - Mouse Anti SEA IgG2b Standard
67011 - Mouse Anti TNF-alpha Standard
67021 - Mouse Anti IL-6 Standard
67031 - Mouse Anti IL-4 Standard
67041 - Mouse Anti IFN-gamma Standard
67051 - Mouse Anti IL-1beta Standard
67061 - Mouse Anti IL-10 Standard
67081 - Mouse Anti IL-17 Standard
67091 - Mouse Anti TGF-beta Standard
67101 - Mouse Anti VEGF Standard
67111 - Mouse Anti IL-2 Standard
68011 - Human Anti TNF-alpha Standard
68021 - Human Anti IL-6 Standard
68031 - Human Anti IL-4 Standard
68041 - Human Anti IFN-gamma Standard
68051 - Human Anti IL-1beta Standard
68061 - Human Anti-IL-10 Standard
68081 - Human Anti IL-17 Standard
68091 - Human Anti TGF-beta Standard
68101 - Human Anti-VEGF Standard
300412 - OVA IgE Standard
300413 - OVA IgE Detection Antibody

· Recommended use and restriction on use**· Recommended use:** Laboratory chemicals**· Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use**· Details of the supplier of the Safety Data Sheet****· Manufacturer/Supplier:**

Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com

Emergency telephone number:

ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

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Trade name: Lyophilized Protein in Mammalian Serum/BSA Buffer (up to 1 mg)

(Cont'd. of page 2)

2 Hazard(s) identification

- **Classification of the substance or mixture**

Combustible Dust May form combustible dust concentrations in air.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:** Not regulated.

- **Signal word:** Warning

- **Hazard statements:**

May form combustible dust concentrations in air.

- **Additional information:**

 Read the label and safety data sheet before use. Prevent dust accumulations to minimize explosion hazard. Keep away from all ignition sources including heat, sparks and flame.
3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Components:**

57-50-1	sucrose, pure	Combustible Dust	20-40%
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4 First-aid measures

- **Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Brush off loose particles from skin.

Wash with soap and water.

If skin irritation continues, consult a doctor.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- **Most important symptoms and effects, both acute and delayed:**

Gastric or intestinal disorders when ingested.

- **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

5 Fire-fighting measures

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- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
May form combustible dust concentrations in air.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
For large spills, wear protective clothing.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions** Avoid release to the environment.
- **Methods and material for containment and cleaning up**
Pick up mechanically.
Dispose of the collected material according to regulations.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Prevent formation of dust.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
Storage area should be dry and well-ventilated.
- **Information about storage in one common storage facility:**
No relevant information available.
Store away from foodstuffs.
Store away from oxidizing agents.
Protect from humidity and water.
- **Specific end use(s)** No relevant information available.

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Safety Data Sheet

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Trade name: Lyophilized Protein in Mammalian Serum/BSA Buffer (up to 1 mg)

(Cont'd. of page 4)

8 Exposure controls/personal protection

 · **Control parameters**

 · **Components with limit values that require monitoring at the workplace:**
57-50-1 sucrose, pure

PEL (USA)	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	Long-term value: 10 mg/m ³
EL (Canada)	Long-term value: 10* 3** mg/m ³ *total dust; **respirable fraction
EV (Canada)	Long-term value: 10 mg/m ³ total dust
LMPE (Mexico)	Long-term value: 10 mg/m ³ A4

 · **Exposure controls**

 · **Personal protective equipment:**

 · **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

 · **Engineering controls:** No relevant information available.

 · **Breathing equipment:**

NIOSH or EU approved dust respirator should be used for operations generating dust.

 · **Protection of hands:**

Gloves are advised for repeated or prolonged contact.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

 · **Eye protection:**


Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

 · **Body protection:** Protective work clothing

 · **Limitation and supervision of exposure into the environment** No special requirements.

 · **Risk management measures** No special requirements.

9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **Appearance:**

Form:	Powder
Color:	Whitish-yellow.
Odor:	Nearly odorless

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· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	Not determined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	May form combustible dust concentrations in air.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Can pose a dust explosion hazard if dispersed in air.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not applicable.
· Density:	
Relative density:	Not determined.
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Dispersible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Risk of dust explosion if enriched with fine dust in the presence of air.
- **Conditions to avoid** Prevent formation of dust.
- **Incompatible materials** Oxidizers
- **Hazardous decomposition products**

Under fire conditions only:
Carbon monoxide and carbon dioxide
Chlorine
Phosphorus oxides (e.g. P2O5)

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

(Cont'd. on page 8)

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- **Waste treatment methods**

- **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- DOT, ADR, IMDG, IATA Not regulated.

- **UN proper shipping name**

- DOT, ADR, IMDG, IATA Not regulated.

- **Transport hazard class(es)**

- DOT, ADR, IMDG, IATA

- Class Not regulated.

- **Packing group**

- DOT, ADR, IMDG, IATA Not regulated.

- **Environmental hazards**

- Marine pollutant: No

- **Special precautions for user**

Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- United States (USA)

- SARA

- **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

- **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

- **TSCA (Toxic Substances Control Act)**

All ingredients are listed or exempt.

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· Proposition 65 (California)**· Chemicals known to cause cancer:**

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic categories**· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed or exempt.

16 Other information

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.

· Date of preparation / last revision November 13, 2017 / -**· Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 16, 2018

Revision: November 16, 2018

1 Identification

- **Product identifier**
- **Trade name:** 1X PBS
HMGB1 Detection Kit Solution A
- **Other means of identification:**
1X PBS - 60223/60264/90402
HMGB1 Detection Kit Solution A - 60104
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:** None in reportable quantities.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.

(Cont'd. on page 2)

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**Trade name: 1X PBS
HMGB1 Detection Kit Solution A**

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If skin irritation is experienced, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

· Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures**· Extinguishing media****· Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: None.**· Special hazards arising from the substance or mixture** No relevant information available.**· Advice for firefighters****· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures**· Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Use personal protective equipment as required.

For large spills, wear protective clothing.

· Environmental precautions No special measures required.**· Methods and material for containment and cleaning up**

Wipe up small spills with paper towel and discard.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**· Handling****· Precautions for safe handling:** Open and handle receptacle with care.**· Information about protection against explosions and fires:** No special measures required.

(Cont'd. on page 3)

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Trade name: 1X PBS
HMGB1 Detection Kit Solution A

(Cont'd. of page 2)

- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
 Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** No relevant information available.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
 The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**
 The usual precautionary measures for handling chemicals should be followed.
 Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
 Not required under normal conditions of use.
 Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties

· Information on basic physical and chemical properties

- **Appearance:**

Form:	Liquid
Color:	Clear
- **Odor:** Nearly odorless
- **Odor threshold:** Not determined.

- **pH-value:** Neutral
- **Melting point/Melting range:** 0 °C (32 °F)
- **Boiling point/Boiling range:** 100 °C (212 °F)

- **Flash point:** Not applicable.

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**Trade name: 1X PBS
HMGB1 Detection Kit Solution A**

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- | | |
|---|---|
| · Flammability (solid, gaseous): | Not applicable. |
| · Auto-ignition temperature: | Not determined. |
| · Decomposition temperature: | Not determined. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Oxidizing properties: | Non-oxidizing. |
| · Vapor pressure: | Not determined. |
| · Density: | |
| Relative density: | 1 |
| Vapor density: | Not determined. |
| Evaporation rate: | Not determined. |
| · Solubility in / Miscibility with Water: | Fully miscible. |
| · Partition coefficient (n-octanol/water): | Not determined. |
| · Viscosity | |
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |
| · Other information | No relevant information available. |

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Chlorine
Phosphorus oxides (e.g. P₂O₅)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.

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Safety Data Sheet

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HMGB1 Detection Kit Solution A**

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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- ~~**STOT-single exposure:** Based on available data, the classification criteria are not met.~~
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
The user of this material has the responsibility to dispose of unused material, residues and containers in

(Cont'd. on page 6)

Safety Data Sheet

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**Trade name: 1X PBS
HMGB1 Detection Kit Solution A**

(Cont'd. of page 5)
compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number
· DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · UN proper shipping name
· DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Transport hazard class(es)
· DOT, ADR/RID/ADN, IMDG, IATA
· Class | Not regulated. |
| · Packing group
· DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Environmental hazards
· Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
 - **United States (USA)**
 - **SARA**
- | |
|--|
| · Section 302 (extremely hazardous substances): |
| None of the ingredients are listed. |
| · Section 355 (extremely hazardous substances): |
| None of the ingredients are listed. |
| · Section 313 (Specific toxic chemical listings): |
| None of the ingredients are listed. |
| · TSCA (Toxic Substances Control Act) |
| All ingredients are listed or exempt. |
- **Proposition 65 (California)**
 - **Chemicals known to cause cancer:**

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Safety Data Sheet

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**Trade name: 1X PBS
HMGB1 Detection Kit Solution A**

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None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL) (Substances not listed.):

All ingredients are listed or exempt.

16 Other information

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.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 16, 2018

Revision: November 16, 2018

1 Identification

- **Product identifier**
- **Trade name:** HMGB1 Detection Kit Solution B
- **Product code:** 601010
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:** None in reportable quantities.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**

(Cont'd. on page 2)

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Trade name: HMGB1 Detection Kit Solution B

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Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

· Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures**· Extinguishing media****· Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: None.**· Special hazards arising from the substance or mixture** No relevant information available.**· Advice for firefighters****· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures**· Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Use personal protective equipment as required.

For large spills, wear protective clothing.

· Environmental precautions No special measures required.**· Methods and material for containment and cleaning up**

Wipe up small spills with paper towel and discard.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**· Handling****· Precautions for safe handling:** Open and handle receptacle with care.**· Conditions for safe storage, including any incompatibilities****· Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.

· Information about storage in one common storage facility: No relevant information available.**· Further information about storage conditions:** Do not freeze.**· Specific end use(s)** No relevant information available.

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Trade name: HMGB1 Detection Kit Solution B

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8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties

· Information on basic physical and chemical properties

- **Appearance:**
 - **Form:** Liquid
 - **Color:** Clear
- **Odor:** Odorless
- **Odor threshold:** Not determined.

- **pH-value:** 8.0
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** Not determined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits**
 - **Lower:** Not determined.

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Upper: · Oxidizing properties:	Not determined. Not determined.
· Vapor pressure:	Not determined.
· Density: Relative density: Vapor density: Evaporation rate:	Not determined. Not determined. Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity Dynamic: Kinematic:	Not determined. Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Possible in traces.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

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Trade name: HMGB1 Detection Kit Solution B

None of the ingredients are listed.

(Cont'd. of page 4)

Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information**Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

Additional ecological information**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations**Waste treatment methods****Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

Uncleaned packagings

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information**UN-Number**

- **DOT, ADR/RID/ADN, IMDG, IATA** Not regulated.

UN proper shipping name

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· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
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· Transport hazard class(es)	
-------------------------------------	--

· DOT, ADR/RID/ADN, IMDG, IATA	
· Class	Not regulated.

· Packing group	
------------------------	--

· DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.
--------------------------------	----------------

· Environmental hazards	
--------------------------------	--

· Marine pollutant:	No
----------------------------	----

· Special precautions for user	Not applicable.
---------------------------------------	-----------------

· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
--	-----------------

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):
--

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):
--

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
--

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)
--

All ingredients are listed.

· Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):
--

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Trade name: HMGB1 Detection Kit Solution B

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None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

16 Other information

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.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health Administration

· **Sources**Website, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

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Website: www.chemtelinc.com

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Safety Data Sheet

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1 Identification

- **Product identifier**
- **Trade name:** Solution D
- **Product code:** 9055
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Skin Irrit. 2 H315 Causes skin irritation.
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**

GHS05
- **Signal word:** Danger
- **Hazard statements:**
H315 Causes skin irritation.
H318 Causes serious eye damage.
- **Precautionary statements:**
P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection.
P302+P352 If on skin: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a poison center/doctor.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

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Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations



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Trade name: Solution D

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3 Composition/information on ingredients· **Chemical characterization: Mixtures**· **Components:**

7647-01-0	hydrochloric acid	0.8-1%
	 Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318	
	 Acute Tox. 4, H302; STOT SE 3, H335	

· **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.**4 First-aid measures**· **Description of first aid measures**· **After inhalation:** Supply fresh air; consult doctor in case of complaints.· **After skin contact:**

Wash with soap and water.

If skin irritation is experienced, consult a doctor.

· **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

Irritant to skin and mucous membranes.

Irritating to eyes.

· **Danger:** Causes serious eye damage.· **Indication of any immediate medical attention and special treatment needed:**

No relevant information available.

5 Fire-fighting measures· **Extinguishing media**· **Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** None.· **Special hazards arising from the substance or mixture** No relevant information available.· **Advice for firefighters**· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

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(Cont'd. of page 2)

- **Personal precautions, protective equipment and emergency procedures**
 Ensure adequate ventilation.
 Use personal protective equipment as required.
 For large spills, wear protective clothing.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
 Wipe up small spills with paper towel and discard.
 For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
- **Reference to other sections**
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 Open and handle receptacle with care.
 Avoid contact with the eyes and skin.
 Avoid breathing mist, vapors, or spray.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
 Store in cool, dry conditions in well sealed receptacles.
 Unsuitable material for receptacle: aluminium.
- **Information about storage in one common storage facility:** No relevant information available.
- **Further information about storage conditions:** Do not freeze.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

7647-01-0 hydrochloric acid

PEL (USA)	Ceiling limit value: 7 mg/m ³ , 5 ppm
REL (USA)	Ceiling limit value: 7 mg/m ³ , 5 ppm
TLV (USA)	Ceiling limit value: 2.98 mg/m ³ , 2 ppm
EL (Canada)	Ceiling limit value: 2 ppm
EV (Canada)	Ceiling limit value: 2 ppm
LMPE (Mexico)	Ceiling limit value: 2 ppm
	A4

- **Exposure controls**
- **General protective and hygienic measures:**
 The usual precautionary measures for handling chemicals should be followed.
 Keep away from foodstuffs, beverages and feed.

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(Cont'd. of page 3)

- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties
· Information on basic physical and chemical properties

- **Appearance:**
 - Form: Liquid
 - Color: Clear
- **Odor:** Odorless
- **Odor threshold:** Not determined.

- **pH-value:** 7.9-9.0
- **Melting point/Melting range:** Not determined.
- **Boiling point/Boiling range:** Not determined.

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Not applicable.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits**
 - Lower: Not determined.
 - Upper: Not determined.

- **Oxidizing properties:** Not determined.

- **Vapor pressure:** Not determined.

- **Density:**
 - Relative density: Not determined.
 - Vapor density: Not determined.
 - Evaporation rate: Not determined.

- **Solubility in / Miscibility with Water:** Fully miscible.

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- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Other information** No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** Reacts with strong oxidizing agents.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Possible in traces.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Based on available data, the classification criteria are not met.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

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(Cont'd. of page 5)

- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|----------------|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT, ADR/RID/ADN, IMDG, IATA · Class | Not regulated. |
| <ul style="list-style-type: none"> · Packing group · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| <ul style="list-style-type: none"> · Environmental hazards · Marine pollutant: | No |

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acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: Solution D

(Cont'd. of page 6)

 · **Special precautions for user** Not applicable.

 · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

 · **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

 · **Section 355 (extremely hazardous substances):**

7647-01-0 hydrochloric acid

 · **Section 313 (Specific toxic chemical listings):**

7647-01-0 hydrochloric acid

 · **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

 · **Proposition 65 (California)**

 · **Chemicals known to cause cancer:**

None of the ingredients are listed.

 · **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

 · **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

 · **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

 · **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

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

None of the ingredients are listed.

 · **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients are listed.

16 Other information

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.

 · **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 16, 2018

Revision: November 16, 2018

Trade name: Solution D

(Cont'd. of page 7)

IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bio-accumulable, Toxic
vPvB: very Persistent and very Bioaccumulative
OSHA: Occupational Safety & Health Administration
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

• Sources

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:
ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
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Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 20, 2018

Revision: November 20, 2018

1 Identification

- **Product identifier**
- **Trade name:** Streptavidin Peroxidase
- **Product code:** 9029
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

Components:

56-81-5	Glycerol	40-60%
---------	----------	--------

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**

(Cont'd. on page 2)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

(Cont'd. of page 1)

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· Most important symptoms and effects, both acute and delayed:

May cause gastro-intestinal irritation if ingested.

· Indication of any immediate medical attention and special treatment needed:

No relevant information available.

5 Fire-fighting measures**· Extinguishing media****· Suitable extinguishing agents:**

The product is not flammable.

Use fire fighting measures that suit the environment.

· For safety reasons unsuitable extinguishing agents: None.**· Special hazards arising from the substance or mixture** No relevant information available.**· Advice for firefighters****· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures**· Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Use personal protective equipment as required.

· Environmental precautions No special measures required.**· Methods and material for containment and cleaning up**

Wipe up small spills with paper towel and discard.

For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage**· Handling****· Precautions for safe handling:**

Open and handle receptacle with care.

Avoid contact with the eyes and skin.

· Conditions for safe storage, including any incompatibilities**· Requirements to be met by storerooms and receptacles:**

Store in cool, dry conditions in well sealed receptacles.

· Information about storage in one common storage facility: No relevant information available.

(Cont'd. on page 3)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

 · **Specific end use(s)** No relevant information available.

(Cont'd. of page 2)

8 Exposure controls/personal protection

 · **Control parameters**

 · **Components with limit values that require monitoring at the workplace:**
56-81-5 Glycerol

PEL (USA)	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
EL (Canada)	Long-term value: 10* 3** mg/m ³ *mist, total; **mist, respirable
EV (Canada)	Long-term value: 10 mg/m ³
LMPE (Mexico)	Long-term value: 10 mg/m ³

 · **Exposure controls**

 · **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes.

Avoid close or long term contact with the skin.

Avoid breathing mist, vapors, or spray.

 · **Engineering controls:** No relevant information available.

 · **Breathing equipment:** Not required under normal conditions of use.

 · **Protection of hands:** Rubber gloves

 · **Eye protection:**


Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

 · **Body protection:**

Protective work clothing

Protection may be required for spills.

 · **Limitation and supervision of exposure into the environment** No special requirements.

 · **Risk management measures** No special requirements.

9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **Appearance:**

Form: Liquid

Color: Clear

 · **Odor:** Nearly odorless

 · **Odor threshold:** Not determined.

(Cont'd. on page 4)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

(Cont'd. of page 3)

· pH-value:	Neutral
· Melting point/Melting range:	0-20 °C (32-4 °F)
· Boiling point/Boiling range:	>100 °C (>212 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**
Under fire conditions only:
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**

(Cont'd. on page 5)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

(Cont'd. of page 4)

- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

Probable route(s) of exposure:

Ingestion.

Inhalation.

Eye contact.

Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

(Cont'd. on page 6)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

(Cont'd. of page 5)

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · UN proper shipping name | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Transport hazard class(es) | |
| · DOT, ADR/RID/ADN, IMDG, IATA | |
| · Class | Not regulated. |
| · Packing group | |
| · DOT, ADR/RID/ADN, IMDG, IATA | Not regulated. |
| · Environmental hazards | |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act)

All ingredients are listed or exempt.

Proposition 65 (California)**Chemicals known to cause cancer:**

None of the ingredients are listed.

Chemicals known to cause developmental toxicity for females:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity for males:

(Cont'd. on page 7)

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: May 29, 2020

Trade name: Streptavidin Peroxidase

(Cont'd. of page 6)

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed or exempt.

16 Other information

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.

· Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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Website: www.chemtel.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

1 Identification

- **Product identifier**
- **Trade name:** TMB
- **Product code:** 90023
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Flam. Liq. 4 H227 Combustible liquid.
Muta. 2 H341 Suspected of causing genetic defects.
Carc. 2 H351 Suspected of causing cancer.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS08

- **Signal word:** Warning
- **Hazard statements:**
H227 Combustible liquid.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
- **Precautionary statements:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from flames and hot surfaces. – No smoking.
P280 Wear protective gloves/protective clothing/eye protection.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.
P403+P235 Store in a well-ventilated place. Keep cool.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 1)

P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Additional information:**



1.5 % of the mixture consists of component(s) of unknown toxicity.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Components:**

67-68-5	dimethyl sulfoxide	Flam. Liq. 4, H227	>90%
54827-17-7	3,3',5,5'-tetramethylbenzidine	 Muta. 2, H341; Carc. 2, H351  Acute Tox. 4, H302	1-1.5%

- **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- **Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.

- **After skin contact:**

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment in case of complaints.

- **After eye contact:**

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

- **Most important symptoms and effects, both acute and delayed:**

Slight irritant effect on eyes.

May cause gastro-intestinal irritation if ingested.

Nausea in case of ingestion.

- **Danger:**

Suspected of causing genetic defects.

Suspected of causing cancer.

- **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray.

- **For safety reasons unsuitable extinguishing agents:** None.

(Cont'd. on page 3)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 2)

- **Special hazards arising from the substance or mixture**
Combustible liquid.
Formation of toxic gases is possible during heating or in case of fire.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:**
Eliminate all ignition sources if safe to do so.
Cool endangered product with water spray.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Keep away from ignition sources.
- **Environmental precautions** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Avoid contact with the eyes and skin.
Avoid breathing mist, vapors, or spray.
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
- **Information about protection against explosions and fires:**
Combustible liquid.
Keep ignition sources away - Do not smoke.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Avoid storage near extreme heat, ignition sources or open flame.
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidizing agents.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 3)

- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

67-68-5 dimethyl sulfoxide

WEEL (USA) | Long-term value: 250 ppm

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Engineering controls:** Provide adequate ventilation.

- **Breathing equipment:** Use suitable respiratory protective device when aerosol or mist is formed.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing

- **Limitation and supervision of exposure into the environment**

No relevant information available.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

Form: Liquid

Color: Clear to straw color.

- **Odor:** Characteristic

- **Odor threshold:** Not determined.

- **pH-value:** Not determined.

- **Melting point/Melting range:** ~-18.5 °C (~-65.3 °F)

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 4)

· Boiling point/Boiling range:	~189 °C (~372.2 °F)
· Flash point:	~87 °C (~188.6 °F)
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	>300 °C (>572 °F)
· Decomposition temperature:	Not determined.
· Danger of explosion:	Not determined.
· Explosion limits	
Lower:	2.6 Vol %
Upper:	28.5 Vol %
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure at 20 °C (68 °F):	~0.417 mmHg
· Density:	
Relative density:	~1.1
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Combustible liquid.
Used empty containers may contain product gases which form explosive mixtures with air.
Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong acids and alkali.
Reacts with strong oxidizing agents.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** Oxidizers, strong bases, strong acids
- **Hazardous decomposition products**
Under fire conditions only:

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 5)

Sulfur oxides (SO_x)
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Suspected of causing genetic defects.
- **Carcinogenicity:** Suspected of causing cancer.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** The product contains materials that are harmful to the environment.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 6)

- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

- **Uncleaned packagings**

- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**

- **DOT**

NA1993

- **ADR, IMDG, IATA**

Not regulated.

- **UN proper shipping name**

- **DOT**

Combustible liquid, n.o.s. (dimethyl sulfoxide)

- **ADR, IMDG, IATA**

Not regulated.

- **Transport hazard class(es)**

- **DOT**



- **Class**

3 Combustible liquids

- **Label**

3

- **ADR, IMDG, IATA**

- **Class**

Not regulated.

- **Packing group**

- **DOT**

III

- **ADR, IMDG, IATA**

Not regulated.

- **Environmental hazards**

- **Marine pollutant:**

No

- **Special precautions for user**

Not applicable.

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

Trade name: TMB

(Cont'd. of page 7)

· Transport/Additional information:**· DOT**Classified as combustible under US DOT regulations.
Labeling is only required for single packages \geq 119 US gal / 450 L.**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)**· Chemicals known to cause cancer:**

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic categories**· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

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Trade name: TMB

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16 Other information

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.

· **Date of preparation / last revision** November 07, 2017 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

Flam. Liq. 4: Flammable liquids – Category 4

Acute Tox. 4: Acute toxicity – Category 4

Muta. 2: Germ cell mutagenicity – Category 2

Carc. 2: Carcinogenicity – Category 2

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

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1305 North Florida Avenue

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Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

1 Identification

- **Product identifier**
- **Trade name:** Chromogen Dilution Buffer
- **Product code:** 90022
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
 Chondrex, Inc.
 16928 Woodinville-Redmond Rd NE Suite B-101
 Woodinville, WA 98072
 USA
 425-702-6365
 support@chondrex.com
- **Emergency telephone number:**
 ChemTel LLC
 800-255-3924 (North America)
 (+1) 813-248-0585 (International)






2 Hazard(s) identification

- **Classification of the substance or mixture**
 The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Components:**

67-56-1	methanol  Flam. Liq. 2, H225  Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331  STOT SE 1, H370  Eye Irrit. 2B, H320	<3%
5949-29-1	Citric acid monohydrate  Eye Irrit. 2A, H319	<3%

- **Additional information:** For the wording of the listed Hazard Statements, refer to section 16.

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Trade name: Chromogen Dilution Buffer

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4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately remove any clothing soiled by the product.
Wash with soap and water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
Slight irritant effect on eyes.
May be harmful if inhaled.
May be harmful in contact with skin.
May be harmful if swallowed.
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.
- **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture** No relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
- **Environmental precautions** Avoid release to the environment.
- **Methods and material for containment and cleaning up**
Towel or mop up material and collect in a suitable container.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.

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· Reference to other sections

- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage
· Handling
· Precautions for safe handling:

- Open and handle receptacle with care.
- Avoid contact with the eyes and skin.
- Avoid breathing mist, vapors, or spray.

· Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities
· Storage
· Requirements to be met by storerooms and receptacles:

- Store in cool, dry conditions in well sealed receptacles.

· Information about storage in one common storage facility: No relevant information available.

· Further information about storage conditions: Do not freeze.

· Specific end use(s) No relevant information available.

8 Exposure controls/personal protection
· Control parameters
· Components with limit values that require monitoring at the workplace:
67-56-1 methanol

PEL (USA)	Long-term value: 260 mg/m ³ , 200 ppm
REL (USA)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV (USA)	Short-term value: 328 mg/m ³ , 250 ppm Long-term value: 262 mg/m ³ , 200 ppm Skin; BEI
EL (Canada)	Short-term value: 250 ppm Long-term value: 200 ppm Skin
EV (Canada)	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
LMPE (Mexico)	Short-term value: 250 ppm Long-term value: 200 ppm PIEL, IBE

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· Ingredients with biological limit values:
67-56-1 methanol

BEI (USA)	15 mg/L Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
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· Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.

· Engineering controls: No relevant information available.

· Breathing equipment:

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

· Protection of hands:


Protective gloves

Rubber gloves

· Not suitable are gloves made of the following materials: PVA gloves

· Eye protection:


Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Protective work clothing

· Limitation and supervision of exposure into the environment No special requirements.

· Risk management measures No special requirements.

9 Physical and chemical properties
· Information on basic physical and chemical properties
· Appearance:

Form: Liquid

Color: Clear

· Odor: Alcohol-like

· Odor threshold: Not determined.

· pH-value: 4.8-5.2

· Melting point/Melting range: Not determined.

· Boiling point/Boiling range: Not determined.

· Flash point: The product is not flammable.

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· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Reacts with strong oxidizing agents.
Reacts with strong alkali.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials**
Alkalis
Oxidizing agents
- **Hazardous decomposition products**

Under fire conditions only:
Phosphorus oxides (e.g. P₂O₅)
Carbon monoxide and carbon dioxide

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11 Toxicological information**· Information on toxicological effects**

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

May be harmful if swallowed, in contact with skin or if inhaled.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information**· Toxicity**

- **Aquatic toxicity** The product contains materials that are harmful to the environment.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

· Additional ecological information**· General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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Trade name: Chromogen Dilution Buffer

 · **Other adverse effects** No relevant information available.

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13 Disposal considerations

 · **Waste treatment methods**

 · **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

 · **Uncleaned packagings**

 · **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

 · **UN-Number**

· DOT, ADR, IMDG, IATA

Not regulated.

 · **UN proper shipping name**

· DOT, ADR, IMDG, IATA

Not regulated.

 · **Transport hazard class(es)**

· DOT, ADR, IMDG, IATA

· Class

Not regulated.

 · **Packing group**

· DOT, ADR, IMDG, IATA

Not regulated.

 · **Environmental hazards**

· Marine pollutant:

No

 · **Special precautions for user**

Not applicable.

 · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

15 Regulatory information

 · **Safety, health and environmental regulations/legislation specific for the substance or mixture**

 · **United States (USA)**

 · **SARA**

 · **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

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· Section 355 (extremely hazardous substances):

None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):

67-56-1 methanol

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)
· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

67-56-1 | methanol

· Carcinogenic categories
· EPA (Environmental Protection Agency):

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

16 Other information

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.

· **Date of preparation / last revision** November 07, 2017 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

Flam. Liq. 2: Flammable liquids – Category 2

Acute Tox. 3: Acute toxicity – Category 3

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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Eye Irrit. 2B: Serious eye damage/eye irritation – Category 2B
STOT SE 1: Specific target organ toxicity (single exposure) – Category 1

Sources

Website, European Chemicals Agency (echa.europa.eu)
Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)
Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

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Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: August 10, 2017

Revision: August 10, 2017

1 Identification

- **Product identifier**
- **Trade name:** Stop Solution
- **Product code:** 9016
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Met. Corr.1 H290 May be corrosive to metals.
Skin Corr. 1C H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.
- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS05

- **Signal word:** Danger
- **Hazard statements:**
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
- **Precautionary statements:**
P234 Keep only in original container.
P260 Do not breathe mist/vapors/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves and eye protection.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

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- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- P363 Wash contaminated clothing before reuse.
- P390 Absorb spillage to prevent material damage.
- P405 Store locked up.
- P406 Store in corrosive resistant container with a resistant inner liner.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

 · **Chemical characterization: Mixtures**

 · **Components:**

7664-93-9	sulfuric acid	 Met. Corr.1, H290; Skin Corr. 1A, H314	5-10%
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 · **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
 For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

 · **Description of first aid measures**

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

 · **After skin contact:**

Immediately remove any clothing soiled by the product.

Immediately rinse with water.

If skin irritation continues, consult a doctor.

Seek immediate medical help for blistering or open wounds.

 · **After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. Then consult a doctor.

 · **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

 · **Most important symptoms and effects, both acute and delayed:**

Caustic effect on skin and mucous membranes.

Gastric or intestinal disorders when ingested.

 · **Danger:**

Danger of gastric perforation.

Causes serious eye damage.

· **Indication of any immediate medical attention and special treatment needed:** Treat symptomatically.

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Trade name: Stop Solution

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
- **Additional information:** Cool endangered receptacles with water in flooding quantities.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation.
- **Environmental precautions**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Methods and material for containment and cleaning up**
Use limestone to neutralize and absorb spill.
Send for recovery or disposal in suitable receptacles.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
Prevent formation of aerosols.
Avoid splashes or spray in enclosed areas.
Use only in well ventilated areas.
Avoid contact with the eyes and skin.
Handle with care.
Avoid breathing mist, vapors, or spray.
- **Information about protection against explosions and fires:** No special measures required.

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Trade name: Stop Solution

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - Unsuitable material for receptacle: aluminium.
 - Unsuitable material for receptacle: steel.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Do not store together with alkalis (caustic solutions).
 - Store away from metals.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

7664-93-9 sulfuric acid

PEL (USA)	Long-term value: 1 mg/m ³
REL (USA)	Long-term value: 1 mg/m ³
TLV (USA)	Long-term value: 0.2* mg/m ³ *as thoracic fraction
EL (Canada)	Long-term value: 0.2 mg/m ³ ACGIH A2; IARC 1
EV (Canada)	Long-term value: 0.2 mg/m ³
LMPE (Mexico)	Long-term value: 0.2* mg/m ³ A2; *fracción torácica

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - The usual precautionary measures for handling chemicals should be followed.
 - Keep away from foodstuffs, beverages and feed.
 - Immediately remove all soiled and contaminated clothing.
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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Safety Data Sheet

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 · **Eye protection:**


Safety glasses

 · **Body protection:** Protective work clothing

 · **Limitation and supervision of exposure into the environment**

No relevant information available.

9 Physical and chemical properties

 · **Information on basic physical and chemical properties**

 · **Appearance:**

Form:	Liquid
Color:	Colorless

· Odor:	Acrid
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· Odor threshold:	Not determined.
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· pH-value at 20°C (68 °F):	<2.0
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· Melting point/Melting range:	-4 to 0°C (25 to 32 °F)
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· Boiling point/Boiling range:	100 - 104°C (212 - 219 °F)
---------------------------------------	----------------------------

· Flash point:	Not applicable.
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· Flammability (solid, gaseous):	Not applicable.
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· Auto-ignition temperature:	Not determined.
-------------------------------------	-----------------

· Decomposition temperature:	Not determined.
-------------------------------------	-----------------

· Danger of explosion:	Product does not present an explosion hazard.
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 · **Explosion limits**

Lower:	Not determined.
---------------	-----------------

Upper:	Not determined.
---------------	-----------------

· Oxidizing properties:	Non-oxidizing.
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· Vapor pressure at 20°C (68 °F):	23 hPa (17 mm Hg)
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 · **Density:**

Relative density:	1.07-1.09
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Vapor density:	Not determined.
-----------------------	-----------------

Evaporation rate:	Not determined.
--------------------------	-----------------

 · **Solubility in / Miscibility with**

Water:	Fully miscible.
---------------	-----------------

· Partition coefficient (n-octanol/water):	Not determined.
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 · **Viscosity**

Dynamic:	Not determined.
-----------------	-----------------

Kinematic:	Not determined.
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Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

Printing date: August 10, 2017

Revision: August 10, 2017

Trade name: Stop Solution

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 · **Other information** No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Reacts with alkali (lyes).
Corrosive action on metals.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** Alkalis
- **Hazardous decomposition products**

Under fire conditions only:
Sulfur oxides (SO_x)

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Caustic effect on skin and mucous membranes.
- **On the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** Based on available data, the classification criteria are not met.

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

None of the ingredients are listed.

 · **NTP (National Toxicology Program):**

7664-93-9 sulfuric acid

K

 · **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

 · **Probable route(s) of exposure:**

 Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

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- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- | | |
|----------------------------------|--|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN3264 |
| · UN proper shipping name | |
| · DOT | Corrosive liquid, acidic, inorganic, n.o.s. (Sulfuric acid) |
| · ADR, IMDG | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (SULPHURIC ACID) |
| · IATA | Corrosive liquid, acidic, inorganic, n.o.s. (Sulphuric acid) |

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· Transport hazard class(es)
· DOT

· Class

8 Corrosive substances

· Label

8

· ADR

· Class

8 (C1) Corrosive substances

· Label

8

· IMDG, IATA

· Class

8 Corrosive substances

· Label

8

· Packing group
· DOT, ADR, IMDG, IATA

III

· Environmental hazards
· Marine pollutant:

No

· Special precautions for user

Warning: Corrosive substances

· Danger code (Kemler):

80

· EMS Number:

F-A, S-B

· Segregation groups

Acids

· Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code

Not applicable.

· Transport/Additional information:


Excepted Quantities (EQ)

EQ Code: E1

Maximum net quantity per inner packaging: 30 mL

Maximum net quantity per outer packaging: 1000 mL

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· DOT


Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· ADR


Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· IMDG


Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

· IATA


Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.5 L each / 1 L net.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· Section 302 (extremely hazardous substances):

None of the ingredients are listed.

· Section 355 (extremely hazardous substances):

7664-93-9 sulfuric acid

· Section 313 (Specific toxic chemical listings):

7664-93-9 sulfuric acid

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)
· Chemicals known to cause cancer:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

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· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic categories**· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

16 Other information

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.

· Date of preparation / last revision August 10, 2017 / -**· Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

Met. Corr. 1: Corrosive to metals – Category 1

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1C: Skin corrosion/irritation – Category 1C

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sorinternet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

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Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 regulations

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Trade name: Stop Solution

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Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com

Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: November 07, 2017

Revision: November 07, 2017

1 Identification

- **Product identifier**
- **Trade name:** 20X Wash Buffer
- **Other product identifiers:** 20X PBS + Tween
- **Product code:** 9005

- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** For Research Use Only – Not Human or Therapeutic Use

- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
Chondrex, Inc.
16928 Woodinville-Redmond Rd NE Suite B-101
Woodinville, WA 98072
USA
425-702-6365
support@chondrex.com
- **Emergency telephone number:**
ChemTel LLC
800-255-3924 (North America)
(+1) 813-248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).

- **Label elements**
- **GHS label elements** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Components:** None in reportable quantities.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
If skin irritation is experienced, consult a doctor.
- **After eye contact:**
Remove contact lenses if worn.

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- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; immediately call for medical help.
 - **Most important symptoms and effects, both acute and delayed:**
Gastric or intestinal disorders when ingested.
Nausea in case of ingestion.
 - **Indication of any immediate medical attention and special treatment needed:**
No relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
The product is not flammable.
Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture** No relevant information available.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation.
Use personal protective equipment as required.
For large spills, wear protective clothing.
- **Environmental precautions** No special measures required.
- **Methods and material for containment and cleaning up**
Wipe up small spills with paper towel and discard.
For larger spills, add sawdust, chalk or other inert binding material, then sweep up and discard.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Open and handle receptacle with care.
- **Information about protection against explosions and fires:** No special measures required.

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Safety Data Sheet

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Trade name: 20X Wash Buffer

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- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Store in cool, dry conditions in well sealed receptacles.
- **Information about storage in one common storage facility:** No relevant information available.
- **Further information about storage conditions:** Do not freeze.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
- **Engineering controls:** No relevant information available.
- **Breathing equipment:** Not required under normal conditions of use.
- **Protection of hands:** Rubber gloves
- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.
- **Limitation and supervision of exposure into the environment** No special requirements.
- **Risk management measures** No special requirements.

9 Physical and chemical properties**Information on basic physical and chemical properties**

- **Appearance:**
 - **Form:** Liquid
 - **Color:** Clear
- **Odor:** Not determined.
- **Odor threshold:** Not determined.
- **pH-value:** 7.2-7.4
- **Melting point/Melting range:** Not determined.

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· Boiling point/Boiling range:	Not determined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Non-oxidizing.
· Vapor pressure:	Not determined.
· Density: Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity Dynamic:	Not determined.
Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**

Under fire conditions only:
Chlorine
Phosphorus oxides (e.g. P₂O₅)

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11 Toxicological information**· Information on toxicological effects**

- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

Ingestion.
Inhalation.
Eye contact.
Skin contact.

- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information**· Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

· Additional ecological information**· General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

(Cont'd. on page 6)

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13 Disposal considerations· **Waste treatment methods**· **Recommendation:**

Small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· **Uncleaned packagings**· **Recommendation:** Disposal must be made according to official regulations.**14 Transport information**· **UN-Number**

· DOT, ADR, IMDG, IATA

Not regulated.

· **UN proper shipping name**

· DOT, ADR, IMDG, IATA

Not regulated.

· **Transport hazard class(es)**

· DOT, ADR, IMDG, IATA

· Class

Not regulated.

· **Packing group**

· DOT, ADR, IMDG, IATA

Not regulated.

· **Environmental hazards**

· Marine pollutant:

No

· **Special precautions for user**

Not applicable.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

15 Regulatory information· **Safety, health and environmental regulations/legislation specific for the substance or mixture**· **United States (USA)**· **SARA**· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

(Cont'd. on page 7)

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· Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act)

All ingredients are listed.

· Proposition 65 (California)**· Chemicals known to cause cancer:**

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

· Carcinogenic categories**· EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

16 Other information

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.

· Date of preparation / last revision November 07, 2017 / -**· Abbreviations and acronyms:**

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CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxique

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

· SourcesWebsite, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

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Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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