

| | |
|------------------------------------|--|
| Product Name: | Other Means of Identification. Catalog #: |
| CRYOcheck™ Chromogenic Factor VIII | CCCF08 |

| | |
|---|---|
| Product Manufacturer: | |
| Precision BioLogic 140 Eileen Stubbs Avenue Dartmouth, NS B3B 0A9 Canada | Phone: +1.902.468.6422 Toll-free in US and CA: +1.800.267.2796 Fax: +1.902.468.6421 Toll-free in US and CA: +1.800.267.0796 www.precisionbiologic.com |

CRYOcheck Chromogenic Factor VIII consists of four components. This Safety Data Sheet contains information for each component of CRYOcheck Chromogenic Factor VIII listed in the table below.

| CRYOcheck Chromogenic Factor VIII Component | Component Type | Kit Configuration | Mixture Classification According to 1272/2008/EC Regulation | Mixture Classification According to OSHA hazard classification in accordance with 29 CFR 1910.1200, and Hazardous Product Regulation HPR (WHMIS 2015) | Page Reference |
|--|-----------------------|--------------------------|--|--|-----------------------|
| Reagent 1 | Mixture | 4 x 1.25 mL | Not classified | Not classified | Page 2 |
| Reagent 2 | Mixture | 4 x 1.25 mL | Not classified | Not classified | Page 11 |
| Reagent 3 | Mixture | 4 x 1.25 mL | Not classified | Not classified | Page 20 |
| Diluent Buffer | Mixture | 4 x 7.0 mL | Not classified | Not classified | Page 30 |

SECTION 1. IDENTIFICATION**1.1 Product Identifier**

| Product Name: | Other Means of Identification. Lot # Format: |
|--|--|
| CRYOcheck Chromogenic Factor VIII: Reagent 1 | CF08R1-XXX |

Product type: Liquid

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use: For use with the other components of CRYOcheck Chromogenic Factor VIII
CRYOcheck Chromogenic Factor VIII is a medical device for in vitro diagnostic use

Restrictions on Use: For professional use only

1.3 Details of the Supplier of the Safety Data Sheet

Manufacturer Contact Information: Precision BioLogic Inc., 140 Eileen Stubbs Ave Dartmouth, NS B3B 0A9, Canada

Email: techsupport@precisionbiologic.com

Precision BioLogic Inc. Telephone Number: [1-800-267-2796](tel:1-800-267-2796)

1.4 Emergency Telephone Number

USA Poison Control: 1-800-222-1222

Canada Provincial Poison Control Centers: www.capcc.ca

EU National Helpdesks: <https://echa.europa.eu/support/helpdesks>

SECTION 2. HAZARD IDENTIFICATION**2.1 Classification of the mixture**

This product is not hazardous according to Regulations (EC) No 1272/2008 and OSHA 29CFR 1910.1200

Product definition: Mixture

Classification of the mixture: Not classified

This product is classified according to Regulations (EC) No 1272/2008 [CLP/GHS], (US) OSHA Hazard classification of ingredients listed in section 3 in accordance with 29 CFR 1910.1200, and Hazardous Product Regulation HPR (WHMIS 2015)

2.2 Label Elements:

Signal Word: No signal words

Hazard statement: None

Adverse Human Health Effects and Symptoms: No data available

Pictograms: None

Precautionary Statements: No data available

2.3 Other hazards not otherwise classified:

Reagent 1 contains bovine factor X. Bovine FX was prepared from bovine plasma from animals free from BSE. However, no known test method can offer complete assurance that components derived from bovine blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance/Mixtures: Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section

Occupational exposure limits, if available, are listed in Section 8

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

| | |
|---------------|--|
| Inhalation: | If inhaled, move person to fresh air. Get medical attention if adverse symptoms appear |
| Skin Contact: | Remove contaminated clothes and shoes. Wash affected area immediately with soap or mild detergent and plenty of water. Get medical attention if symptoms occur |
| Eye Contact: | Rinse immediately with plenty of water. Keep eyelid open with fingers while rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs |
| Ingestion: | Rinse mouth with plenty of water provided person is conscious. Do not induce vomiting. Get medical attention if symptoms occur |

4.2 Most Important Symptoms and Effects, Acute and Delayed

No known significant effects or critical hazards

4.3 Immediate Medical Attention and Special Treatment

Note to physician: Symptomatic treatment.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

| | |
|---------------------------------|--|
| Suitable Extinguishing Media: | Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used |
| Unsuitable Extinguishing Media: | Not applicable |

5.2 Specific Hazards Arising from the substance or mixture

| | |
|--|--|
| Specific hazards arising from the chemical/substance or mixture: | Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use |
| Hazardous thermal decomposition products: | Thermal decomposition may generate toxic and hazardous fumes of carbon dioxide, carbon monoxide, and other organic compounds |

5.3 Special Protective Equipment and Precautions/Advice for Fire-Fighters

| | |
|--------------------------------|--|
| Protective actions: | Isolate the scene by removing all persons from the vicinity of the incident if there is fire. No action shall be taken involving any personal risk or without suitable training |
| Equipment for self-protection: | Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

| | |
|------------------------------|---|
| For non-emergency personnel: | Isolate leaks provided that there is no additional risk for the people performing this task. Do not walk through spilled material. Put on appropriate personal protective equipment |
| For emergency responders: | Wear appropriate protective equipment (see Section 8). See also the information in "For non-emergency personnel" |

6.2 Environmental Precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water

6.3 Methods for Containment and Cleaning Up

Pre-treat the spill with a disinfectant with full biocidal activity. Soak up with inert absorbent material, and clean with plenty of water. Collect spilled material in appropriate waste disposal container. Dispose of via a licenced waste disposal contractor

6.4 Reference to Other Sections

See Section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment
See Section 13 for additional waste treatment information

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

No known test method can offer complete assurance that components derived from bovine blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious.

| | |
|----------------------|--|
| Protective measures: | Put on appropriate personal protective equipment (see Section 8) |
|----------------------|--|

Advice on general occupational hygiene: Do not eat, drink or smoke in areas where this mixture is handled, stored and processed. Wash hands with soap and water after handling the mixture and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store at temperature indicated on the product label. Keep container tightly closed and sealed until ready for use. Avoid environmental release. Keep away from food and drinks. Store in accordance with local regulations

7.3 Specific End Uses

The product is intended for in vitro diagnostic use. Use the product in accordance with Good Laboratory Practice

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters: None

8.2 Exposure Controls: No exposure limit value known.

8.2.1 Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

8.2.2 Individual Protection Measures

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields

Skin Protection: Handle with chemical-resistant, impervious gloves complying with an approved standard. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands

Respiratory Protection: Respiratory protection is not required

Body Protection: Personal protective equipment (PPE) should be selected based on the task being performed and the risks involved

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved

8.2.3 Environmental Exposure Controls

Avoid any release into the environment

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Physical state: Liquid

9.1 Information on Basic Physical and Chemical Properties

| | |
|---|-------------------------------------|
| Odor: | Odorless |
| Odor Threshold: | No applicable |
| Color: | Clear, colorless |
| pH: | Neutral pH |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash point: | Product does not sustain combustion |
| Evaporation rate: | Not available |
| Flammability: | Not applicable |
| Upper/lower flammability or explosive limits: | Not applicable |
| Vapor Pressure: | Not available |
| Vapor density: | Not applicable |
| Relative Density: | Not applicable |
| Solubility: | Not applicable |
| Partition coefficient: n-octanol/water: | Not applicable |
| Auto-ignition temperature: | Not applicable |
| Decomposition temperature: | Not applicable |
| Viscosity: | Not applicable |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |
| 9.2 Other Information: | Not applicable |

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical Stability

Chemically stable under recommended conditions of storage, handling and use.

10.3 Possibility of Hazardous Reactions

Under the normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to Avoid, Including Static Discharge, Shock or Vibration

Not applicable

10.5 Incompatible Materials

Avoid strong acids, avoid alkalis or strong bases

10.6 Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

| | |
|---|------------------|
| Acute toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| Germ cell mutagenicity: | Not available |
| Carcinogenicity: | Not available |
| Reproductive toxicity: | Not available |
| Summary of evaluation of the CMR properties: | Not available |
| STOT-single exposure: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Symptoms related to the physical, chemical and toxicological characteristics: | No specific data |
| Delayed and immediate effects, and chronic effects from short-term and long-term exposure: | Not available |
| Numerical measures of toxicity, including Acute Toxicity Estimates (ATEs): | Not available |
| Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA: | Not found |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|--|---------------|
| 12.1 Toxicity: | Not available |
| 12.2 Persistence and Degradability: | Not available |
| 12.3 Bioaccumulative Potential: | Not available |
| 12.4 Mobility in Soil: | Not available |

12.5 Results of PBT and vPvB Assessment: Not applicable

12.6 Other Adverse Effects: No known significant effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Disposal Methods and Special Precautions for Product Disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licenced waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Special Precautions

This reagent contains bovine FX was prepared from bovine plasma from animals free from BSE. However, no known test method can offer complete assurance that components derived from bovine blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious

13.2 Disposal Methods for Packaging

The generation of waste should be avoided or minimized wherever possible. Incineration or landfill should only be considered when recycling is not feasible

Special Precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers

SECTION 14. TRANSPORT INFORMATION

(ADR/RID, ADN, IMDG and ICAO, TDG&DOT Classification, IATA)

14.1 UN Number: Not regulated

14.2 UN Proper Shipping Name: Not applicable

14.3 Transport Hazard Class: Not applicable

14.4 Packing Group: Not applicable

14.5 Environmental Hazards: Not applicable

14.6 Additional Information: Not applicable

14.6 Special Precautions for User

Transport within user premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage

14.7 Transport in Bulk According to Annex II of MARPOL and the IBC Code: Not applicable

SECTION 15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**Canada Regulations and Lists:

| | |
|------------------------|-------------------------------------|
| NPRI: | No components listed |
| CEPA Toxic substances: | No components listed |
| DSL/NDSL: | All components are listed or exempt |

US Regulations and Lists:

| | |
|--|--|
| TSCA: | All components are listed or exempt |
| SARA 302/304 and SARA 311/312 EPA List of Lists | Not applicable, no products were found |
| Massachusetts | No components listed |
| New Jersey | No components listed |
| Pennsylvania | No components listed |
| California Prop. 65 | No components listed |

EU Regulations and Lists:

EU Regulation (EC) No.1907/2006 (REACH):

- Annex XIV List of substances subject to authorisation No components listed
- Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixture and articles Not applicable

C&L Inventory All components are listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

SECTION 16. OTHER INFORMATION**Full text of H-Statements Referred to Under Section 2**

Not applicable

Key literature References and Sources for Data

This SDS was prepared on the basis of sheets of individual components and online databases (e.g. ECHA, RTECS) as well as our knowledge and experience, taking into account current legislation

Procedure Used to Derive the Classification for Mixtures

(EU) Classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
Hazard Communication Standard, 29 CFR 1910.1200 (HCS)
Hazardous Product Regulation HPR (WHMIS 2015)

Training Advice

Provide workers with adequate training to assure that the product is handled safely in accordance with national and community legislation

Abbreviations and Acronyms:

WHMIS=Workplace Hazardous Materials Information System
GHS=Globally Harmonized System of Classification and Labelling of Chemicals
OSHA=Occupational Safety and Health Administration
CLP= Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
FDA=Food and Drug Administration
STOT=Specific Target Organ Toxicity
PBT=Persistent, Bioaccumulative and Toxic
vPvB= Very Persistent and very Bioaccumulative
ADR=European Agreement concerning the International Carriage of Dangerous Goods by Road
RID=European Agreement Concerning the International Carriage of Dangerous Goods by Rail
ADN=International Carriage of Dangerous Goods by Inland Waterways
IMDG=International Maritime Dangerous Goods
ICAO= International Civil Aviation Organization
TDG=Transportation of Dangerous Goods Act
DOT=Department of Transportation
UN=United Nations
IATA=International Air Transport Association
NPRI=National Pollutant Release Inventory
CEPA=Canadian Environmental Protection Act
DSL=Canada Domestic Substances List
NDSL= Canada Non-Domestic Substances List
TSCA=Toxic Substances Control Act
SARA=Superfund Amendments and Reauthorization Act
DEA Lists=United States Drug Enforcement Administration Lists
EPA=United States Environmental Protection Agency
REACH=Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA=European Chemical Agency
RTECS=Registry of Toxic Effects of Chemical Substances
BSE=Bovine spongiform encephalopathy

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

Preparation Information

Precision BioLogic Inc.

Revision History

| | | |
|--------------|--------------------------------|------------------------------|
| Revision: 00 | Revision Date: January 6, 2020 | Changes: Not applicable |
| Revision: 01 | Revision Date: April 27, 2020 | Changes: Updates for clarity |

SECTION 1. IDENTIFICATION**1.4 Product Identifier**

| Product Name: | Other Means of Identification. Lot # Format: |
|--|--|
| CRYOcheck Chromogenic Factor VIII: Reagent 2 | CF08R2-XXX |

Product type: Liquid

1.5 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use: For use with the other components of CRYOcheck Chromogenic Factor VIII
CRYOcheck Chromogenic Factor VIII is a medical device for in vitro diagnostic use

Restrictions on Use: For professional use only

1.6 Details of the Supplier of the Safety Data Sheet

Manufacturer Contact Information: Precision BioLogic Inc., 140 Eileen Stubbs Ave Dartmouth, NS B3B 0A9, Canada

Email: techsupport@precisionbiologic.com

Precision BioLogic Inc. Telephone Number: [1-800-267-2796](tel:1-800-267-2796)

1.5 Emergency Telephone Number

USA Poison Control: 1-800-222-1222

Canada Provincial Poison Control Centers: www.capcc.ca

EU National Helpdesks: <https://echa.europa.eu/support/helpdesks>

SECTION 2. HAZARD IDENTIFICATION**2.1 Classification of the mixture**

This product is not hazardous according to Regulations (EC) No 1272/2008 and OSHA 29CFR 1910.1200

Product definition: Mixture

Classification of the mixture: Not classified

This product is classified according to Regulations (EC) No 1272/2008 [CLP/GHS], (US) OSHA Hazard classification of ingredients listed in section 3 in accordance with 29 CFR 1910.1200, and Hazardous Product Regulation HPR (WHMIS 2015)

2.2 Label Elements:

Signal Word: No signal words

Hazard statement: None

Adverse Human Health Effects and Symptoms: No data available

Pictograms: None

Precautionary Statements: No data available

2.3 Other hazards not otherwise classified:

Reagent 2 contains human FIXa and thrombin (FIIa) prepared from human plasma which was found to be negative when tested in accordance with current FDA required tests. However, no known test method can offer complete assurance that components derived from human blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance/Mixtures: Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section

Occupational exposure limits, if available, are listed in Section 8

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

| | |
|---------------|--|
| Inhalation: | If inhaled, move person to fresh air. Get medical attention if adverse symptoms appear |
| Skin Contact: | Remove contaminated clothes and shoes. Wash affected area immediately with soap or mild detergent and plenty of water. Get medical attention if symptoms occur |
| Eye Contact: | Rinse immediately with plenty of water. Keep eyelid open with fingers while rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs |
| Ingestion: | Rinse mouth with plenty of water provided person is conscious. Do not induce vomiting. Get medical attention if symptoms occur |

4.2 Most Important Symptoms and Effects, Acute and Delayed

No known significant effects or critical hazards

4.3 Immediate Medical Attention and Special Treatment

Note to physician: Symptomatic treatment.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

| | |
|---------------------------------|--|
| Suitable Extinguishing Media: | Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used |
| Unsuitable Extinguishing Media: | Not applicable |

5.2 Specific Hazards Arising from the substance or mixture

| | |
|--|--|
| Specific hazards arising from the chemical/substance or mixture: | Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use |
| Hazardous thermal decomposition products: | Thermal decomposition may generate toxic and hazardous fumes of carbon dioxide, carbon monoxide, and other organic compounds |

5.3 Special Protective Equipment and Precautions/Advice for Fire-Fighters

| | |
|--------------------------------|--|
| Protective actions: | Isolate the scene by removing all persons from the vicinity of the incident if there is fire. No action shall be taken involving any personal risk or without suitable training |
| Equipment for self-protection: | Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

| | |
|------------------------------|---|
| For non-emergency personnel: | Isolate leaks provided that there is no additional risk for the people performing this task. Do not walk through spilled material. Put on appropriate personal protective equipment |
| For emergency responders: | Wear appropriate protective equipment (see Section 8). See also the information in "For non-emergency personnel" |

6.2 Environmental Precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water

6.3 Methods for Containment and Cleaning Up

Pre-treat the spill with a disinfectant with full biocidal activity. Soak up with inert absorbent material, and clean with plenty of water. Collect spilled material in appropriate waste disposal container. Dispose of via a licenced waste disposal contractor

6.4 Reference to Other Sections

See Section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment
See Section 13 for additional waste treatment information

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

| | |
|---|---|
| Protective measures: | Put on appropriate personal protective equipment (see Section 8) |
| Advice on general occupational hygiene: | Do not eat, drink or smoke in areas where this mixture is handled, stored and processed. Wash hands with soap and water after handling the mixture and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures |

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store at temperature indicated on the product label. Keep container tightly closed and sealed until ready for use. Avoid environmental release. Keep away from food and drinks. Store in accordance with local regulations

7.3 Specific End Uses

The product is intended for in vitro diagnostic use. Use the product in accordance with Good Laboratory Practice

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters: None

8.2 Exposure Controls: No exposure limit value known.

8.2.1 Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

8.2.2 Individual Protection Measures

| | |
|-------------------------|--|
| Eye/Face Protection: | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields |
| Skin Protection: | Handle with chemical-resistant, impervious gloves complying with an approved standard. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands |
| Respiratory Protection: | Respiratory protection is not required |
| Body Protection: | Personal protective equipment (PPE) should be selected based on the task being performed and the risks involved |
| Other skin protection: | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved |

8.2.3 Environmental Exposure Controls

Avoid any release into the environment

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

| | |
|---|-------------------------------------|
| Physical state: | Liquid |
| Odor: | Odorless |
| Odor Threshold: | No applicable |
| Color: | Clear, colorless |
| pH: | Neutral pH |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash point: | Product does not sustain combustion |
| Evaporation rate: | Not available |
| Flammability: | Not applicable |
| Upper/lower flammability or explosive limits: | Not applicable |
| Vapor Pressure: | Not available |
| Vapor density: | Not applicable |
| Relative Density: | Not applicable |
| Solubility: | Not applicable |
| Partition coefficient: n-octanol/water: | Not applicable |
| Auto-ignition temperature: | Not applicable |
| Decomposition temperature: | Not applicable |
| Viscosity: | Not applicable |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |

9.2 Other Information: Not applicable

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical Stability

Chemically stable under recommended conditions of storage, handling and use.

10.3 Possibility of Hazardous Reactions

Under the normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to Avoid, Including Static Discharge, Shock or Vibration

Not applicable

10.5 Incompatible Materials

Avoid strong acids, avoid alkalis or strong bases

10.6 Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

| | |
|---|------------------|
| Acute toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| Germ cell mutagenicity: | Not available |
| Carcinogenicity: | Not available |
| Reproductive toxicity: | Not available |
| Summary of evaluation of the CMR properties: | Not available |
| STOT-single exposure: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Symptoms related to the physical, chemical and toxicological characteristics: | No specific data |
| Delayed and immediate effects, and chronic effects from short-term and long-term exposure: | Not available |
| Numerical measures of toxicity, including Acute Toxicity Estimates (ATEs): | Not available |
| Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA: | Not found |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|--|---------------|
| 12.1 Toxicity: | Not available |
| 12.2 Persistence and Degradability: | Not available |
| 12.3 Bioaccumulative Potential: | Not available |

| | |
|---|---|
| 12.4 Mobility in Soil: | Not available |
| 12.5 Results of PBT and vPvB Assessment: | Not applicable |
| 12.6 Other Adverse Effects: | No known significant effects or critical hazards. |

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Disposal Methods and Special Precautions for Product Disposal

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licenced waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Special Precautions

The product is a human blood-based product and should be handled and discarded as recommended for any potentially infectious human specimen

13.2 Disposal Methods for Packaging

The generation of waste should be avoided or minimized wherever possible. Incineration or landfill should only be considered when recycling is not feasible

Special Precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers

SECTION 14. TRANSPORT INFORMATION

(ADR/RID, ADN, IMDG and ICAO, TDG&DOT Classification, IATA)

| | |
|--------------------------------------|----------------|
| 14.1 UN Number: | Not regulated |
| 14.2 UN Proper Shipping Name: | Not applicable |
| 14.3 Transport Hazard Class: | Not applicable |
| 14.4 Packing Group: | Not applicable |
| 14.5 Environmental Hazards: | Not applicable |
| 14.6 Additional Information: | Not applicable |

14.6 Special Precautions for User

| | |
|---------------------------------|---|
| Transport within user premises: | Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage |
|---------------------------------|---|

| | |
|---|----------------|
| 14.7 Transport in Bulk According to Annex II of MARPOL and the IBC Code: | Not applicable |
|---|----------------|

SECTION 15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**Canada Regulations and Lists:

| | |
|------------------------|-------------------------------------|
| NPRI: | No components listed |
| CEPA Toxic substances: | No components listed |
| DSL/NDSL: | All components are listed or exempt |

US Regulations and Lists:

| | |
|--|--|
| TSCA: | All components are listed or exempt |
| SARA 302/304 and SARA 311/312 EPA List of Lists | Not applicable, no products were found |
| Massachusetts | No components listed |
| New Jersey | No components listed |
| Pennsylvania | No components listed |
| California Prop. 65 | No components listed |

EU Regulations and Lists:

EU Regulation (EC) No.1907/2006 (REACH):

- Annex XIV List of substances subject to authorisation No components listed
- Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixture and articles Not applicable

C&L Inventory All components are listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

SECTION 16. OTHER INFORMATION**Full text of H-Statements Referred to Under Section 2**

Not applicable

Key literature References and Sources for Data

This SDS was prepared on the basis of sheets of individual components and online databases (e.g. ECHA, RTECS) as well as our knowledge and experience, taking into account current legislation

Procedure Used to Derive the Classification for Mixtures

(EU) Classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
Hazard Communication Standard, 29 CFR 1910.1200 (HCS)
Hazardous Product Regulation HPR (WHMIS 2015)

Training Advice

Provide workers with adequate training to assure that the product is handled safely in accordance with national and community legislation

Abbreviations and Acronyms:

WHMIS=Workplace Hazardous Materials Information System
GHS=Globally Harmonized System of Classification and Labelling of Chemicals
OSHA=Occupational Safety and Health Administration
CLP= Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
FDA=Food and Drug Administration
STOT=Specific Target Organ Toxicity
PBT=Persistent, Bioaccumulative and Toxic
vPvB= Very Persistent and very Bioaccumulative
ADR=European Agreement concerning the International Carriage of Dangerous Goods by Road
RID=European Agreement Concerning the International Carriage of Dangerous Goods by Rail
ADN=International Carriage of Dangerous Goods by Inland Waterways
IMDG=International Maritime Dangerous Goods
ICAO= International Civil Aviation Organization
TDG=Transportation of Dangerous Goods Act
DOT=Department of Transportation
UN=United Nations
IATA=International Air Transport Association
NPRI=National Pollutant Release Inventory
CEPA=Canadian Environmental Protection Act
DSL=Canada Domestic Substances List
NDSL= Canada Non-Domestic Substances List
TSCA=Toxic Substances Control Act
SARA=Superfund Amendments and Reauthorization Act
DEA Lists=United States Drug Enforcement Administration Lists
EPA=United States Environmental Protection Agency
REACH=Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA=European Chemical Agency
RTECS=Registry of Toxic Effects of Chemical Substances

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

Preparation Information

Precision BioLogic Inc.

Revision History

| | | |
|--------------|--------------------------------|------------------------------|
| Revision: 00 | Revision Date: January 6, 2020 | Changes: Not applicable |
| Revision: 01 | Revision Date: April 27, 2020 | Changes: Updates for clarity |

SECTION 1. IDENTIFICATION**1.7 Product Identifier**

| Product Name: | Other Means of Identification. Lot # Format: |
|--|--|
| CRYOcheck Chromogenic Factor VIII: Reagent 3 | CF08R3-XXX |

Product type: Liquid

1.8 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use: For use with the other components of CRYOcheck Chromogenic Factor VIII
CRYOcheck Chromogenic Factor VIII is a medical device for in vitro diagnostic use

Restrictions on Use: For professional use only

1.9 Details of the Supplier of the Safety Data Sheet

Manufacturer Contact Information: Precision BioLogic Inc., 140 Eileen Stubbs Ave Dartmouth, NS B3B 0A9, Canada

Email: techsupport@precisionbiologic.com

Precision BioLogic Inc. Telephone Number: [1-800-267-2796](tel:1-800-267-2796)

1.6 Emergency Telephone Number

USA Poison Control: 1-800-222-1222

Canada Provincial Poison Control Centers: www.capcc.ca

EU National Helpdesks: <https://echa.europa.eu/support/helpdesks>

SECTION 2. HAZARD IDENTIFICATION**2.1 Classification of the mixture**

This product is not hazardous according to Regulations (EC) No 1272/2008 and OSHA 29CFR 1910.1200

Product definition: Mixture

Classification of the mixture: Not classified

This product is classified according to Regulations (EC) No 1272/2008 [CLP/GHS], (US) OSHA Hazard classification of ingredients listed in section 3 in accordance with 29 CFR 1910.1200, and Hazardous Product Regulation HPR (WHMIS 2015)

2.2 Label Elements:

Signal Word: No signal words

Hazard statement: None

Adverse Human Health Effects and Symptoms: No data available

Pictograms: None

Precautionary Statements: No data available

2.3 Other hazards not otherwise classified:

Toxic p-nitroaniline is released during the assay, however, the maximum concentration in the reaction mixture does not exceed 0.01%

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance/Mixtures:

The hazards listed in the table below are for components in pure form. These hazards are reduced or eliminated when mixed or diluted.

| Component | Classification | Concentration in Reagent 3 |
|---|--|----------------------------|
| Magnesium EDTA (Ethylenediaminetetraacetic acid dipotassium magnesium salt) CAS # 15708-48-2 EC # 239-803-8 | Skin Irrit 2, Eye Irrit 2, STOT SE 3resp; H315, H319, H335 | < 2% |

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

Occupational exposure limits, if available, are listed in Section 8

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

| | |
|---------------|--|
| Inhalation: | If inhaled, move person to fresh air. Get medical attention if adverse symptoms appear |
| Skin Contact: | Remove contaminated clothes and shoes. Wash affected area immediately with soap or mild detergent and plenty of water. Get medical attention if symptoms occur |
| Eye Contact: | Rinse immediately with plenty of water. Keep eyelid open with fingers while rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs |
| Ingestion: | Rinse mouth with plenty of water provided person is conscious. Do not induce vomiting. Get medical attention if symptoms occur |

4.2 Most Important Symptoms and Effects, Acute and Delayed

No known significant effects or critical hazards

4.3 Immediate Medical Attention and Special Treatment

Note to physician: Symptomatic treatment.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media: Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used

Unsuitable Extinguishing Media: Not applicable

5.2 Specific Hazards Arising from the substance or mixture

Specific hazards arising from the chemical/substance or mixture: Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use

Hazardous thermal decomposition products: Thermal decomposition may generate toxic and hazardous fumes of carbon dioxide, carbon monoxide, and other organic compounds

5.3 Special Protective Equipment and Precautions/Advice for Fire-Fighters

Protective actions: Isolate the scene by removing all persons from the vicinity of the incident if there is fire. No action shall be taken involving any personal risk or without suitable training

Equipment for self-protection: Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

For non-emergency personnel: Isolate leaks provided that there is no additional risk for the people performing this task. Do not walk through spilled material. Put on appropriate personal protective equipment

For emergency responders: Wear appropriate protective equipment (see Section 8). See also the information in "For non-emergency personnel"

6.2 Environmental Precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water

6.3 Methods for Containment and Cleaning Up

Pre-treat the spill with a disinfectant with full biocidal activity. Soak up with inert absorbent material, and clean with plenty of water. Collect spilled material in appropriate waste disposal container. Dispose of via a licenced waste disposal contractor

6.4 Reference to Other Sections

See Section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment
See Section 13 for additional waste treatment information

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

Protective measures: Put on appropriate personal protective equipment (see Section 8)

Advice on general occupational hygiene: Do not eat, drink or smoke in areas where this mixture is handled, stored and processed. Wash hands with soap and water after handling the mixture and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store at temperature indicated on the product label. Keep container tightly closed and sealed until ready for use. Avoid environmental release. Keep away from food and drinks. Store in accordance with local regulations

7.3 Specific End Uses

The product is intended for in vitro diagnostic use. Use the product in accordance with Good Laboratory Practice

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters:

National Limit Values:

| | |
|------------------|---|
| Dust, Inhalable | United Kingdom (EH40/2005) Time-weighted-average exposure limit (TWA) 10 mg/m ³ |
| Dust, Respirable | United Kingdom (EH40/2005) Time-weighted-average exposure limit (TWA) 4 mg/m ³ |
| DNEL | No data available |
| PNEC | No data available |

8.2 Exposure Controls: No exposure limit value known.

8.2.1 Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

8.2.2 Individual Protection Measures

| | |
|-------------------------|--|
| Eye/Face Protection: | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields |
| Skin Protection: | Handle with chemical-resistant, impervious gloves complying with an approved standard. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands |
| Respiratory Protection: | Respiratory protection is not required |
| Body Protection: | Personal protective equipment (PPE) should be selected based on the task |

being performed and the risks involved

Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved

8.2.3 Environmental Exposure Controls

Avoid any release into the environment

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

| | |
|---|-------------------------------------|
| Physical state: | Liquid |
| Odor: | Odorless |
| Odor Threshold: | No applicable |
| Color: | Clear, colorless |
| pH: | Slightly acidic pH |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash point: | Product does not sustain combustion |
| Evaporation rate: | Not available |
| Flammability: | Not applicable |
| Upper/lower flammability or explosive limits: | Not applicable |
| Vapor Pressure: | Not available |
| Vapor density: | Not applicable |
| Relative Density: | Not applicable |
| Solubility: | Not applicable |
| Partition coefficient: n-octanol/water: | Not applicable |
| Auto-ignition temperature: | Not applicable |
| Decomposition temperature: | Not applicable |
| Viscosity: | Not applicable |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |
| 9.2 Other Information: | Not applicable |

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical Stability

Chemically stable under recommended conditions of storage, handling and use.

10.3 Possibility of Hazardous Reactions

Under the normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to Avoid, Including Static Discharge, Shock or Vibration

Not applicable

10.5 Incompatible Materials

Avoid strong acids, avoid alkalis or strong bases

10.6 Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11. TOXICOLOGICAL INFORMATION**11.1 Information on Toxicological Effects**

| | |
|---|--|
| Acute toxicity: | Reagent 3 is not classified as acute toxic |
| Skin corrosion/irritation: | Can cause skin irritation after repeated or prolonged contact |
| Serious eye damage/irritation: | The product is not classified as irritant to the eyes |
| Respiratory or skin sensitization: | Hypersensitive reactions can not be ruled out for individuals who are overly sensitive |
| Germ cell mutagenicity: | No mutagenic effects have been reported for the substances in this mixture |
| Carcinogenicity: | No carcinogenic effects have been reported for the substances in this mixture |
| Reproductive toxicity: | No toxic effects have been reported for the substances in this mixture |
| Summary of evaluation of the CMR properties: | Not available |
| STOT-single exposure: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Symptoms related to the physical, chemical and toxicological characteristics: | No specific data |
| Delayed and immediate effects, and chronic effects from short-term and long-term exposure: | Not available |
| Numerical measures of toxicity, including Acute Toxicity Estimates (ATEs): | Not available |
| Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA: | Not found |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|---|----------------|
| 12.1 Toxicity: | Not available |
| 12.2 Persistence and Degradability: | Not available |
| 12.3 Bioaccumulative Potential: | Not available |
| 12.4 Mobility in Soil: | Not available |
| 12.5 Results of PBT and vPvB Assessment: | Not applicable |

12.6 Other Adverse Effects:

No known significant effects or critical hazards.

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Disposal Methods and Special Precautions for Product Disposal**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licenced waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Special Precautions

The product is a human blood-based product and should be handled and discarded as recommended for any potentially infectious human specimen

13.2 Disposal Methods for Packaging

The generation of waste should be avoided or minimized wherever possible. Incineration or landfill should only be considered when recycling is not feasible

Special Precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers

SECTION 14. TRANSPORT INFORMATION

(ADR/RID, ADN, IMDG and ICAO, TDG&DOT Classification, IATA)

14.1 UN Number: Not regulated

14.2 UN Proper Shipping Name: Not applicable

14.3 Transport Hazard Class: Not applicable

14.4 Packing Group: Not applicable

14.5 Environmental Hazards: Not applicable

14.6 Additional Information: Not applicable

14.6 Special Precautions for User

Transport within user premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage

14.7 Transport in Bulk According to Annex II of MARPOL and the IBC Code: Not applicable

SECTION 15. REGULATORY INFORMATION**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**Canada Regulations and Lists:

| | |
|------------------------|-------------------------------------|
| NPRI: | No components listed |
| CEPA Toxic substances: | No components listed |
| DSL/NDSL: | All components are listed or exempt |

US Regulations and Lists:

| | |
|--|--|
| TSCA: | All components are listed or exempt |
| SARA 302/304 and SARA 311/312 EPA List of Lists | Not applicable, no products were found |
| Massachusetts | No components listed |
| New Jersey | No components listed |
| Pennsylvania | No components listed |
| California Prop. 65 | No components listed |

EU Regulations and Lists:

EU Regulation (EC) No.1907/2006 (REACH):

- Annex XIV List of substances subject to authorisation No components listed
- Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixture and articles Not applicable

C&L Inventory All components are listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

SECTION 16. OTHER INFORMATION**Full text of H-Statements and Abbreviations Referred to Under Section 3**

H315: Causes skin irritation.
H319: Causes serious eye irritation
H335: May cause respiratory irritation
Skin Irrit 2: Skin Irritant (Category 2)
Eye Irrit 2: Irritates eyes (Category 2)
STOT SE 3resp: Specific target organ toxicity – single exposure; May cause respiratory irritation (Category 3 resp).

Key literature References and Sources for Data

This SDS was prepared on the basis of sheets of individual components and online databases (e.g. ECHA, RTECS) as well as our knowledge and experience, taking into account current legislation

Procedure Used to Derive the Classification for Mixtures

(EU) Classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
Hazard Communication Standard, 29 CFR 1910.1200 (HCS)
Hazardous Product Regulation HPR (WHMIS 2015)

Training Advice

Provide workers with adequate training to assure that the product is handled safely in accordance with national and community legislation

Abbreviations and Acronyms:

WHMIS=Workplace Hazardous Materials Information System
GHS=Globally Harmonized System of Classification and Labelling of Chemicals
OSHA=Occupational Safety and Health Administration
CLP= Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
FDA=Food and Drug Administration
STOT=Specific Target Organ Toxicity
PBT=Persistent, Bioaccumulative and Toxic
vPvB= Very Persistent and very Bioaccumulative
ADR=European Agreement concerning the International Carriage of Dangerous Goods by Road
RID=European Agreement Concerning the International Carriage of Dangerous Goods by Rail
ADN=International Carriage of Dangerous Goods by Inland Waterways
IMDG=International Maritime Dangerous Goods
ICAO= International Civil Aviation Organization
TDG=Transportation of Dangerous Goods Act
DOT=Department of Transportation
UN=United Nations
IATA=International Air Transport Association
NPRI=National Pollutant Release Inventory
CEPA=Canadian Environmental Protection Act
DSL=Canada Domestic Substances List
NDSL= Canada Non-Domestic Substances List
TSCA=Toxic Substances Control Act
SARA=Superfund Amendments and Reauthorization Act
DEA Lists=United States Drug Enforcement Administration Lists
EPA=United States Environmental Protection Agency
REACH=Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA=European Chemical Agency
RTECS=Registry of Toxic Effects of Chemical Substances

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

Preparation Information

Precision BioLogic Inc.

Revision History

| | | |
|--------------|--------------------------------|-------------------------|
| Revision: 00 | Revision Date: January 6, 2020 | Changes: Not applicable |
| Revision: 01 | Revision Date: April 27, 2020 | Changes: Not applicable |

SECTION 1. IDENTIFICATION**1.10 Product Identifier**

| Product Name: | Other Means of Identification. Lot # Format: |
|---|--|
| CRYOcheck Chromogenic Factor VIII: Diluent Buffer | CF08D-XXX |

Product type: Liquid

1.11 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Recommended Use: For use with the other components of CRYOcheck Chromogenic Factor VIII
CRYOcheck Chromogenic Factor VIII is a medical device for in vitro diagnostic use

Restrictions on Use: For professional use only

1.12 Details of the Supplier of the Safety Data Sheet

Manufacturer Contact Information: Precision BioLogic Inc., 140 Eileen Stubbs Ave Dartmouth, NS B3B 0A9, Canada

Email: techsupport@precisionbiologic.com

Precision BioLogic Inc. Telephone Number: [1-800-267-2796](tel:1-800-267-2796)

1.7 Emergency Telephone Number

USA Poison Control: 1-800-222-1222

Canada Provincial Poison Control Centers: www.capcc.ca

EU National Helpdesks: <https://echa.europa.eu/support/helpdesks>

SECTION 2. HAZARD IDENTIFICATION**2.1 Classification of the mixture**

This product is not hazardous according to Regulations (EC) No 1272/2008 and OSHA 29CFR 1910.1200

Product definition: Mixture

Classification of the mixture: Not classified

This product is classified according to Regulations (EC) No 1272/2008 [CLP/GHS], (US) OSHA Hazard classification of ingredients listed in section 3 in accordance with 29 CFR 1910.1200, and Hazardous Product Regulation HPR (WHMIS 2015)

2.2 Label Elements:

Signal Word: No signal words

Hazard statement: None

Adverse Human Health Effects and Symptoms: No data available

Pictograms: None

Precautionary Statements: No data available

2.3 Other hazards not otherwise classified:

Diluent Buffer contains bovine serum albumin (BSA). All BSA is from donor animals that are free from BSE and TSE. Donor animals have been subjected to examination by a veterinarian before and after donation, determining that the animals are free from infectious materials. However, no known test method can offer complete assurance that components derived from bovine blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance/Mixtures:

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section

Occupational exposure limits, if available, are listed in Section 8

SECTION 4. FIRST AID MEASURES

4.1 Description of First Aid Measures

| | |
|---------------|--|
| Inhalation: | If inhaled, move person to fresh air. Get medical attention if adverse symptoms appear |
| Skin Contact: | Remove contaminated clothes and shoes. Wash affected area immediately with soap or mild detergent and plenty of water. Get medical attention if symptoms occur |
| Eye Contact: | Rinse immediately with plenty of water. Keep eyelid open with fingers while rinsing. Check for and remove any contact lenses. Get medical attention if irritation occurs |
| Ingestion: | Rinse mouth with plenty of water provided person is conscious. Do not induce vomiting. Get medical attention if symptoms occur |

4.2 Most Important Symptoms and Effects, Acute and Delayed

No known significant effects or critical hazards

4.3 Immediate Medical Attention and Special Treatment

| | |
|--------------------|------------------------|
| Note to physician: | Symptomatic treatment. |
|--------------------|------------------------|

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

| | |
|---------------------------------|--|
| Suitable Extinguishing Media: | Product is non-flammable, low risk of fire by the inflammability characteristics of the product in normal conditions of storage, manipulation and use. In the case of the existence of sustained combustion as a result of improper manipulation, storage or use any type of extinguishing agent can be used |
| Unsuitable Extinguishing Media: | Not applicable |

5.2 Specific Hazards Arising from the substance or mixture

| | |
|--|--|
| Specific hazards arising from the chemical/substance or mixture: | Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use |
| Hazardous thermal decomposition products: | Thermal decomposition may generate toxic and hazardous fumes of carbon dioxide, carbon monoxide, and other organic compounds |

5.3 Special Protective Equipment and Precautions/Advice for Fire-Fighters

| | |
|--------------------------------|--|
| Protective actions: | Isolate the scene by removing all persons from the vicinity of the incident if there is fire. No action shall be taken involving any personal risk or without suitable training |
| Equipment for self-protection: | Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

| | |
|------------------------------|---|
| For non-emergency personnel: | Isolate leaks provided that there is no additional risk for the people performing this task. Do not walk through spilled material. Put on appropriate personal protective equipment |
| For emergency responders: | Wear appropriate protective equipment (see Section 8). See also the information in "For non-emergency personnel" |

6.2 Environmental Precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water

6.3 Methods for Containment and Cleaning Up

Pre-treat the spill with a disinfectant with full biocidal activity. Soak up with inert absorbent material, and clean with plenty of water. Collect spilled material in appropriate waste disposal container. Dispose of via a licenced waste disposal contractor

6.4 Reference to Other Sections

See Section 1 for emergency contact information
See Section 8 for information on appropriate personal protective equipment
See Section 13 for additional waste treatment information

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for Safe Handling

| | |
|---|---|
| Protective measures: | Put on appropriate personal protective equipment (see Section 8) |
| Advice on general occupational hygiene: | Do not eat, drink or smoke in areas where this mixture is handled, stored and processed. Wash hands with soap and water after handling the mixture and before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See Section 8 for additional information on hygiene measures |

7.2 Conditions for Safe Storage, Including Any Incompatibilities

Store at temperature indicated on the product label. Keep container tightly closed and sealed until ready for use. Avoid environmental release. Keep away from food and drinks. Store in accordance with local regulations

7.3 Specific End Uses

The product is intended for in vitro diagnostic use. Use the product in accordance with Good Laboratory Practice

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters: None

8.2 Exposure Controls: No exposure limit value known.

8.2.1 Appropriate Engineering Controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

8.2.2 Individual Protection Measures

| | |
|-------------------------|--|
| Eye/Face Protection: | Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields |
| Skin Protection: | Handle with chemical-resistant, impervious gloves complying with an approved standard. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands |
| Respiratory Protection: | Respiratory protection is not required |
| Body Protection: | Personal protective equipment (PPE) should be selected based on the task being performed and the risks involved |
| Other skin protection: | Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved |

8.2.3 Environmental Exposure Controls

Avoid any release into the environment

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

| | |
|---|-------------------------------------|
| Physical state: | Liquid |
| Odor: | Odorless |
| Odor Threshold: | No applicable |
| Color: | Clear, colorless |
| pH: | Neutral pH |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash point: | Product does not sustain combustion |
| Evaporation rate: | Not available |
| Flammability: | Not applicable |
| Upper/lower flammability or explosive limits: | Not applicable |
| Vapor Pressure: | Not available |
| Vapor density: | Not applicable |
| Relative Density: | Not applicable |
| Solubility: | Not applicable |
| Partition coefficient: n-octanol/water: | Not applicable |
| Auto-ignition temperature: | Not applicable |
| Decomposition temperature: | Not applicable |
| Viscosity: | Not applicable |
| Explosive properties: | Not applicable |
| Oxidizing properties: | Not applicable |

9.2 Other Information: Not applicable

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical Stability

Chemically stable under recommended conditions of storage, handling and use.

10.3 Possibility of Hazardous Reactions

Under the normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to Avoid, Including Static Discharge, Shock or Vibration

Not applicable

10.5 Incompatible Materials

Avoid strong acids, avoid alkalis or strong bases

10.6 Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

| | |
|---|------------------|
| Acute toxicity: | Not available |
| Sodium Azide | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| Germ cell mutagenicity: | Not available |
| Carcinogenicity: | Not available |
| Reproductive toxicity: | Not available |
| Summary of evaluation of the CMR properties: | Not available |
| STOT-single exposure: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Symptoms related to the physical, chemical and toxicological characteristics: | No specific data |
| Delayed and immediate effects, and chronic effects from short-term and long-term exposure: | Not available |
| Numerical measures of toxicity, including Acute Toxicity Estimates (ATEs): | Not available |
| Indication of whether the chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions) or found to be a potential carcinogen by OSHA: | Not found |

SECTION 12. ECOLOGICAL INFORMATION

| | |
|---|---|
| 12.1 Toxicity: | Not available |
| 12.2 Persistence and Degradability: | Not available |
| 12.3 Bioaccumulative Potential: | Not available |
| 12.4 Mobility in Soil: | Not available |
| 12.5 Results of PBT and vPvB Assessment: | Not applicable |
| 12.6 Other Adverse Effects: | No known significant effects or critical hazards. |

SECTION 13. DISPOSAL CONSIDERATIONS**13.1 Disposal Methods and Special Precautions for Product Disposal**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licenced waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction

Special Precautions

Diluent Buffer contains bovine serum albumin (BSA). All BSA is from donor animals that are free from BSE and TSE. Donor animals have been subjected to examination by a veterinarian before and after donation, determining that the animals are free from infectious materials. However, no known test method can offer complete assurance that components derived from bovine blood will not transmit infectious agents, therefore, the handling and disposal of reagent should be made with the required caution as being potentially infectious.

13.2 Disposal Methods for Packaging

The generation of waste should be avoided or minimized wherever possible. Incineration or landfill should only be considered when recycling is not feasible

Special Precautions

This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers

SECTION 14. TRANSPORT INFORMATION

(ADR/RID, ADN, IMDG and ICAO, TDG&DOT Classification, IATA)

| | |
|--|----------------|
| 14.1 UN Number: | Not regulated |
| 14.2 UN Proper Shipping Name: | Not applicable |
| 14.3 Transport Hazard Class: | Not applicable |
| 14.4 Packing Group: | Not applicable |
| 14.5 Environmental Hazards: | Not applicable |
| 14.6 Additional Information: | Not applicable |
| 14.6 Special Precautions for User | |

Transport within user premises: Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage

14.7 Transport in Bulk According to Annex II of MARPOL and the IBC Code: Not applicable

SECTION 15. REGULATORY INFORMATION

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

Canada Regulations and Lists:

NPRI: No components listed
CEPA Toxic substances: No components listed
DSL/NDL: All components are listed or exempt

US Regulations and Lists:

TSCA: All components are listed or exempt
SARA 302/304 and SARA 311/312
EPA List of Lists: Not applicable, no products were found
Massachusetts: No components listed
New Jersey: No components listed
Pennsylvania: No components listed
California Prop. 65: No components listed

EU Regulations and Lists:

EU Regulation (EC) No.1907/2006 (REACH):
• Annex XIV List of substances subject to authorisation: No components listed
• Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixture and articles: Not applicable
C&L Inventory: All components are listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier

SECTION 16. OTHER INFORMATION

Full text of H-Statements and Abbreviations Referred to Under Section 3

Not applicable

Key literature References and Sources for Data

This SDS was prepared on the basis of sheets of individual components and online databases (e.g. ECHA, RTECS) as well as our knowledge and experience, taking into account current legislation

Procedure Used to Derive the Classification for Mixtures

(EU) Classification for mixtures according to Regulation (EC) 1272/2008 [CLP]
Hazard Communication Standard, 29 CFR 1910.1200 (HCS)
Hazardous Product Regulation HPR (WHMIS 2015)

Training Advice

Provide workers with adequate training to assure that the product is handled safely in accordance with national and community legislation

Abbreviations and Acronyms:

WHMIS=Workplace Hazardous Materials Information System
GHS=Globally Harmonized System of Classification and Labelling of Chemicals
OSHA=Occupational Safety and Health Administration
CLP= Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
FDA=Food and Drug Administration
STOT=Specific Target Organ Toxicity
PBT=Persistent, Bioaccumulative and Toxic
vPvB= Very Persistent and very Bioaccumulative
ADR=European Agreement concerning the International Carriage of Dangerous Goods by Road
RID=European Agreement Concerning the International Carriage of Dangerous Goods by Rail
ADN=International Carriage of Dangerous Goods by Inland Waterways
IMDG=International Maritime Dangerous Goods
ICAO= International Civil Aviation Organization
TDG=Transportation of Dangerous Goods Act
DOT=Department of Transportation
UN=United Nations
IATA=International Air Transport Association
NPRI=National Pollutant Release Inventory
CEPA=Canadian Environmental Protection Act
DSL=Canada Domestic Substances List
NDSL= Canada Non-Domestic Substances List
TSCA=Toxic Substances Control Act
SARA=Superfund Amendments and Reauthorization Act
DEA Lists=United States Drug Enforcement Administration Lists
EPA=United States Environmental Protection Agency
REACH=Registration, Evaluation, Authorisation and Restriction of Chemicals
ECHA=European Chemical Agency
RTECS=Registry of Toxic Effects of Chemical Substances
BSE=Bovine spongiform encephalopathy
TSE=Transmissible spongiform encephalopathy

Notice to Reader:

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist

Preparation Information

Precision BioLogic Inc.

Revision History

Revision: 00

Revision Date: January 6, 2020

Changes: Not applicable

Revision: 01

Revision Date: April 27, 2020

Changes: Updates for clarity, Lot number format of Diluent Buffer updated