

# **Safety Data Sheet**

日本

1. Product and company identification

**Product name** Raw Canadian FBS

Catalogue Number SH31096

Product type Liquid. Original preparation date 3/19/2018 Date of issue/Date of revision 3/19/2018

Date of previous issue No previous validation

Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

Supplier / Manufacturer

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#### 2. Hazards identification

**GHS Classification** Not classified.

GHS label elements

Signal word No signal word.

No known significant effects or critical hazards. **Hazard statements** 

Precautionary statements

General

Prevention Not applicable Response Not applicable. Not applicable. Storage Disposal Not applicable. Other hazards which do not None known result in classification

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## 3. Composition/information on ingredients

Substance/mixture Substance

Other means of identification Not available.

CAS number/other identifiers

CAS number Not available.

ENCS number Not available.

ISHL number Not available.

Ingredient name%CAS numberENCSISHLFetal Bovine Serum, pure product100-Not available.Not available.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

### 4. First aid measures

Description of necessary first aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical

attention if symptoms occur.

Ingestion Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for

breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.

Get medical attention if symptoms occur.

Skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get

medical attention if symptoms occur.

Eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check

for and remove any contact lenses. Get medical attention if irritation occurs.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contactNo known significant effects or critical hazards.InhalationNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.

Short term exposure

Potential delayed effects Not available.

Over-exposure signs/symptoms

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been

ingested or inhaled.

**Specific treatments** No specific treatment.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

### 5. Fire-fighting measures

Extinguishing media

**Suitable**Use an extinguishing agent suitable for the surrounding fire.

No specific data.

Not suitable None known.

Specific hazards arising from

the chemical

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products

decomposition products

Special precautions for fire-

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.

fighters No action shall be taken involving any personal risk or without suitable training.

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Special protective equipment for fire-fighters

**Environmental precautions** 

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

#### 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Evacuate For non-emergency personnel

surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or

walk through spilled material. Put on appropriate personal protective equipment.

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 For emergency responders on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways,

soil or air).

Methods and materials for containment and cleaning up

Small spill Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-

soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows.

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact

information and Section 13 for waste disposal.

#### 7。 Handling and storage

Precautions for safe handling

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

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for

additional information on hygiene measures.

Conditions for safe storage Do not store above the following temperature: -10°C (14°F). Store in accordance with local

regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before

handling or use.

#### 8。 Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name **Exposure limits** 

Appropriate engineering

controls

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

**Environmental exposure** 

controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking Hygiene measures

and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure

that eyewash stations and safety showers are close to the workstation location.

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

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn at all

times when handling chemical products if a risk assessment indicates this is necessary.

Personal protective equipment for the body should be selected based on the task being performed **Body protection** 

and the risks involved and should be approved by a specialist before handling this product.

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Other skin protection Appropriate footwear and any additional skin protection measures should be selected based on the

task being performed and the risks involved and should be approved by a specialist before handling

Based on the hazard and potential for exposure, select a respirator that meets the appropriate Respiratory protection

standard or certification. Respirators must be used according to a respiratory protection program to

ensure proper fitting, training, and other important aspects of use.

#### 9。 Physical and chemical properties

**Appearance** 

Physical state Liquid. Color Not available. Odor Not available. **Odor threshold** Not available Not available. **Melting point** Not available. **Boiling point** Not available. Flash point Not available. Not available. Fire point **Evaporation rate** Not available. Flammability (solid, gas) Not available.

Lower and upper explosive (flammable) limits

Not available.

Vapor pressure Not available. Vapor density Not available. Relative density Not available. Solubility Not available Solubility in water Not available. Partition coefficient: n-octanol/

water

Not available.

Auto-ignition temperature Not available. Not available. **Decomposition temperature** Not available.

Not available. Viscosity Flow time (ISO 2431) Not available. **Burning time** Not applicable **Burning rate** Not applicable.

#### 10. Stability and reactivity

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

**Chemical stability** The product is stable.

Possibility of hazardous

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

Conditions to avoid No specific data. Incompatible materials No specific data.

Hazardous decomposition

products

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

produced.

### Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name Result **Species** Dose Exposure

Not available.

Irritation/Corrosion

Product/ingredient name Result **Species** Score **Exposure** Observation

Not available

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Sensitization

Product/ingredient name Route of exposure Species Result

Not available.

Mutagenicity

Product/ingredient name Test Experiment Result

Not available.

Carcinogenicity

Product/ingredient name Result Species Dose Exposure

Not available.

Reproductive toxicity

Product/ingredient name Maternal Fertility Development Species Dose Exposure

toxicity toxin

Not available.

**Teratogenicity** 

Product/ingredient name Result Species Dose Exposure

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes Routes of entry anticipated: Oral, Dermal.

of exposure

Potential acute health effects

InhalationNo known significant effects or critical hazards.IngestionNo known significant effects or critical hazards.Skin contactNo known significant effects or critical hazards.Eye contactNo known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contactNo specific data.InhalationNo specific data.Skin contactNo specific data.IngestionNo specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Long term exposure

Potential immediate effects Not available.

Potential delayed effects Not available.

Potential chronic health effects

Not available.

GeneralNo known significant effects or critical hazards.CarcinogenicityNo known significant effects or critical hazards.MutagenicityNo known significant effects or critical hazards.TeratogenicityNo known significant effects or critical hazards.Developmental effectsNo known significant effects or critical hazards.Fertility effectsNo known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

N/A

Other information Not available.

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## 12。 Ecological information

**Toxicity** 

Not available.

Persistence/degradability

Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient Not available.

(K<sub>oc</sub>)

Mobility Not available.

Hazardous to the ozone layer Not applicable.

Other adverse effects No known significant effects or critical hazards.

## 13. Disposal considerations

Disposal methods

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 licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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.

## 14. Transport information

·	UN	IMDG	IATA	
UN number	Not available.	Not available.	Not available.	
UN proper shipping name	Not available.	Not available.	Not available.	
Transport hazard class (es)	Not available.	Not available.	Not available.	
Packing group	-	-	-	
Environmental hazards	No.	No.	No.	
Additional information	-	-	-	
Special precautions for		<b>Transport within user's premises:</b> 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.		
Transport in bulk accordance II of MARPOL and IBC Code		ole.		

## 15. Regulatory information

### Fire Service Law

None of the components are listed.

Fire Service Law - Obstructive Not listed materials

### **Maritime Safety Law**

Notification Regulating Transportation of Dangerous Materials by Sea

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None of the components are listed.

Container class

None of the components are listed.

#### **ISHL**

Use of specified chemical substances

None of the components are listed.

Label requirements

None of the components are listed.

Chemicals requiring notification

None of the components are listed.

Carcinogen

None of the components are listed.

<u>Mutagen</u>

None of the components are listed.

Corrosive liquid Not listed

ISHL Appendix 1 Not available.

Lead regulation Not listed

Prevention of Tetraalkyl Lead Poisoning

Not listed

Harmful Substances Subject to Obtaining Permission for

Manufacturing

Not listed

Harmful Substances, Prohibited for Manufacturing Not listed

Dangerous Substances Not listed

Organic solvents poisoning prevention

Not available.

## Chemical Substances Control Law (CSCL)

None of the components are listed.

Poisonous and Deleterious Substances

None of the components are listed.

### Pollutant Release and Transfer Registers (PRTR)

None of the components are listed.

JSOH Carcinogen Not listed

Law Concerning Prevention of Pollution of the Ocean and Maritime Disaster

Road law Not available.

List of Specially Controlled Not listed Industrial Waste

### International regulations

## Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

### **Montreal Protocol**

Not listed.

### Stockholm Convention on Persistent Organic Pollutants

Not listed.

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### **UNECE Aarhus Protocol on POPs and Heavy Metals**

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Not listed

### International lists

**National inventory** 

Japan Japan inventory (ENCS): Not determined.

Japan inventory (ISHL): Not determined.

Europe **United States** Not determined. Not determined. Canada inventory China Not determined.

#### 16. Other information

#### **History**

Date of printing 5/2/2020 Date of issue/Date of revision 3/19/2018

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Version

sds\_author@cytiva.com ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by

the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not available UN = United Nations

#### Procedure used to derive the classification

Classification Justification

Not classified.

References Not available.

Indicates information that has changed from previously issued version.

#### 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.

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