



# Safety Data Sheet for Future Fields' Recombinant Bovine FGF2

Effective Date: 13 May 2023

## Section 1: Identification of the Substance/Mixture and of the Company

#### **Identification of the Substance:**

- Product name: Recombinant Bovine FGF2
- Other names: Recombinant Bovine Fibroblast Growth Factor 2
- Recommended Use: For Research Use Only. Not for diagnostic or therapeutic use.

#### **Company/Undertaking Identification:**

Future Fields Cellular Agriculture and Research LTD. 11130 105 Avenue NW Edmonton, AB, Canada, T5H0L5

# 24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, Spill, Leak, or Exposure. Call Environmental 360 Solutions

• Canada wide: 1-833-463-3607

#### 24 hour Emergency Response for Fire, Exposure or Accident.

- Canada and USA: Call 911
- Outside the USA and Canada: Call the local emergency response number.

#### **Section 2: Hazardous Ingredients**

#### Relevant Ingredients (≥1%): None

Mixture ingredients are Non-Hazardous according to GHS Classification Guidelines (less than 1% of mixture).

# **Section 3: Composition / Information on Ingredients**

The product contains no hazardous substances at concentration of 1% or greater. This product is not known to contain carcinogens at a concentration of 0.1% or greater. We recommend handling all chemicals with caution.







Chemical Name	CAS#
Recombinant Protein	106096-93-9
Buffer Components	
Sodium chloride	7647-14-5
Phosphoric acid, disodium salt	7558-79-4
Phosphoric acid, potassium salt (1:1)	7778-77-0
Potassium chloride	7447-40-7

## **Section 4: First Aid Measures**

## **Description of first aid measures**

Skin contact	Rinse skin with water. Immediate medical attention is not required. If symptoms occur, seek medical advice.
Eye contact	Rinse cautiously with water. Remove contact lenses, if present and easy to do. Continue rinsing for 15 minutes. If symptoms persist, seek medical attention.
Ingestion	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If symptoms occur, seek medical advice.
Inhalation	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Remove casualty personnel to fresh air. If symptoms occur, seek medical attention immediately.
Notes to physician	Treat symptomatically
Most important symptoms and effects, both acute and delayed	Not Applicable





Indication of any immediate medical attention and special treatment needed	None
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## **Section 5: Fire or Explosion Measures**

## **Extinguishing media**

Suitable extinguishing media	Water spray Carbon dioxide (CO <sub>2</sub> ) Foam Dry chemicals
Unsuitable extinguishing media	No information available
Special hazards arising from the substance or mixture	No information available
Protective equipment and precautions for firefighters	Standard procedure for chemical fires

#### Section 6: Accidental Release Measures

#### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protection equipment.

#### **Environmental precautions**

No special environmental precautions required.

## Methods and material for containment and cleaning up

Soak up with inert absorbent material.

#### Reference to other sections

See Section 8 for more information.

## **Section 7: Handling and Storage**







## Precautions for safe handling

Use personal protective equipment as required. No special handling advice is necessary.

## Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

## Specific end use(s)

For Research Use Only. Not for diagnostic or therapeutic use.

## **Section 8: Exposure Controls**

## **Control Parameters**

Exposure Limits	Contains no substances with occupational exposure limit values.
Engineering Measures	Ensure adequate ventilation, especially in confined areas

#### **Exposure Controls**

Personal Protective Equipment	Respiratory protection: In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.
	Hand protection: Wear suitable gloves.
	Glove material: Compatible chemical-resistant gloves.
	Eye protection: Tight sealing safety goggles.
	Skin and Body Protection: Wear suitable protective clothing.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
Environmental Exposure Controls	No special environmental precautions required.

**Section 9: Physical and Chemical Properties** 





Appearance	Lyophilized powder
Odor	No data
Odor Threshold	No data
Molecular Weight	No data
pH	8.0
Melting point / melting range	No data
Boiling point / boiling range	No data
Flash point	No data
Autoignition Temperature	No data
Decomposition temperature	No data
Evaporation rate	No data
Flammability (solid, gas)	No data
Upper explosion limit	No data
Lower explosion limit	No data
Vapor Pressure	No data
Vapor density	No data
Relative density	No data
Specific gravity	No data
Solubility	No data
Partition coefficient:	No data
n-octanol/water	No data
Viscosity	No data
Explosive properties	No data





Oxidizing properties	No data
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Other information: No data

# **Section 10: Stability and Reactivity**

**Reactivity:** None known

Chemical stability: Stable under normal conditions

Possibility of hazardous reaction: No information available

Conditions to avoid: No information available

Incompatible materials: No dangerous reaction known under conditions of normal use

Hazardous decomposition products: No data available

# **Section 11: Toxicological Information**

## Information on toxicological effects:

There is no evidence available indicating acute toxicity.

Principal Routes of Exposure	Potential Health Effects
Eyes	May cause eye irritation. No data available.
Skin	May cause skin irritation. No data available.
Inhalation	May be harmful by inhalation. No data available.
Ingestion	May be harmful if swallowed. No data available.
Carcinogenic	No data available.
Germ Cell Mutagen	No data available.
Sensitization	No data available.





Target Organ Effects (single and repeated exposure)	No data available.
Reproductive Toxicity	No data available.
Aspiration Hazard	No data available.

#### **Section 12: Ecological Information**

#### **Ecotoxicity**

Contains no substances known to be hazardous to the environment or not degradable in wastewater treatment plants.

**Mobility in soil:** No data available.

Persistence and degradability: No data available. Bioaccumulative potential: No data available.

#### Other adverse effects

No information available.

#### Section 13: Disposal

#### **Waste treatment methods**

Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved local disposal techniques. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

#### **Section 14: Transport Information**

IATA / ADR / DOT-US / IMDG: Not regulated in the meaning of transport regulations

**UN number:** None

**UN proper shipping name:** None **Transport hazard class(es):** None

Packing group: None

Environmental hazards: None

Special precautions for user: Not Applicable







## **Section 15: Regulatory Information**

#### **Safety Regulatory Information**

No information available.

#### **Health Regulatory Information**

No information available.

#### **Environmental Regulatory Information**

No information available.

#### **Section 16: Other Information**

Date of Creation: 18 Nov. 2022

Usage: For Research Use Only. Not for diagnostic or therapeutic use.

#### References

- CCOHS
- ILPI
- Environmental 360 Solutions
- Thermo Fisher Scientific Documents and Support

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE

**End of Safety Data Sheet**