

**SIGMA-ALDRICH****Material Safety Data Sheet**

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 Version 1.60

**Section 1 - Product and Company Information**

**Product Name** Fibroblast Growth Factor, Basic, Fragment1-24 bovine  
**Product Number** F5895  
**Brand** Sigma Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052

**Emergency Phone:** 314-776-6555**Section 2 - Composition/Information on Ingredient**

<b>Substance Name</b>	<b>CAS #</b>	<b>SARA 313</b>	<b>EC no</b>	<b>Annex I Index Number</b>
FIBROBLAST GROWTH FACTOR BOVINE	62031-54-3			No

**Formula**  
**Synonyms**

**Section 3 - Hazards Identification****Emergency Overview**

Caution: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

**HMIS Rating**

Health: 1 Flammability: 0 Reactivity: 0

**NFPA Rating**

Health: 1 Flammability: 0 Reactivity: 0

For additional information on toxicity, please refer to Section 11.

**Section 4 - First Aid Measures****Oral Exposure**

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

**Inhalation Exposure**

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

**Dermal Exposure**

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

**Eye Exposure**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Section 5 - Fire Fighting Measures**

**Autoignition Temp:** N/A

**Extinguishing Media****Suitable**

Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

**Firefighting****Protective Equipment**

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

**Section 6 - Accidental Release Measures****Methods for Cleaning Up**

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

**Section 7 - Handling and Storage****Handling****User Exposure**

Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

**Storage****Suitable**

Keep tightly closed. Store at -20°C

**Section 8 - Exposure Controls / PPE****Engineering Controls**

Safety shower and eye bath. Use only in a chemical fume hood.

**Personal Protective Equipment****Respiratory**

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator.

**Hand**

Protective gloves.

**Eye**

Chemical safety goggles.

**General Hygiene Measures**

Wash thoroughly after handling.

**Section 9 - Physical/Chemical Properties****Appearance**

**Color**  
White

**Form**  
Lyophilisate

Molecular Weight	N/A
pH	N/A
BP/BP Range	N/A
MP/MP Range	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Solubility	N/A

N/A = not available

## Section 10 - Stability and Reactivity

### Stability

Stable

Stable

### Conditions of Instability

Heat sensitive. Air and light sensitive.

### Hazardous Decomposition Products

#### Hazardous Decomposition Products

Carbon monoxide, carbon dioxide, and nitrogen oxides

### Hazardous Polymerization

#### Hazardous Polymerization

Will not occur.

## Section 11 - Toxicological Information

### Route of Exposure

#### Skin Contact

May cause skin irritation.

#### Skin Absorption

May be harmful if absorbed through the skin.

#### Eye Contact

May cause eye irritation.

#### Inhalation

May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

### Ingestion

May be harmful if swallowed.

### Signs and Symptoms of Exposure

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### Conditions Aggravated by Exposure

In vivo this compound lacks both cell and species specificity since it is a mitogenic agent for cells as diverse as fibroblasts, chondrocytes, the Y1 adrenal cell line, glial cells or endometrial cells obtained from murine, bovine and human sources.\*

RTECS Number: LK3641300

### Chronic Exposure- Mutagen

<u>Species</u>	<u>Dose</u>	<u>Cell Type</u>	<u>Mutation test</u>
Human	10 UG/L	Other cell types	Unscheduled DNA synthesis
Rat	10 UG/L	Other cell types	DNA inhibition
Mouse	50 UG/L	fibroblast	Unscheduled DNA synthesis
Mouse	100 UG/KG	Other cell types	Unscheduled DNA synthesis

## Section 12 - Ecological Information

No data available.

## Section 13 - Disposal Considerations

### Appropriate Method of Disposal of Substance or Preparation

Contact a licensed professional waste disposal service to dispose of this material.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

## Section 14 - Transport Information

### DOT

Proper Shipping Name: None

Non-Hazardous for Transport This substance is considered to be nonhazardous for transport.

### IATA

Non-Hazardous for Air Transport Non-hazardous for air transport.

## Section 15 - Regulatory Information

### US Classification and Label Text

#### US Statements

Caution: The chemical, physical, and toxicological properties of this product have not been thoroughly investigated. Exercise due care.

### United States Regulatory Information

SARA Listed: No

### Canada Regulatory Information

#### WHMIS Classification

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

## Section 16 - Other Information

### Disclaimer

For R&D use only. Not for drug, household or other uses.

**Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. SigmaAldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice packing slip for additional terms and conditions of sale. Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

