

### 1 Identification of substance:

- **Product name:** *BD™ Fibronectin, human*
- **Catalog number:** 354008, 356008, 356009
- **Manufacturer/Supplier:**  
 BD Biosciences - Discovery Labware  
 2 Oak Park  
 Bedford, MA 01730  
 Tel: 877.232.8995
- **Information department:** *Technical services*
- **Emergency information:**  
*In case of a chemical emergency, spill, fire, exposure, or accident contact BD Discovery Labware at 800.334.5229, or ChemTrec at 800.424.9300.*

### 2 Composition/Data on components:

- **Chemical characterization**
- **Description:**  
*Human Fibronectin lyophilized from CAPS buffer containing sodium chloride and calcium chloride, pH 11.0*
- **Dangerous components:** *CAPS, Sodium chloride, Calcium chloride dihydrate*

CAS NO.	Description	%
1135-40-6	3-(Cyclohexylamino)-1-propanesulfonic acid CAPS Xn; R 21/22 <i>Danger: Skull and crossbones 3.1.O/3, 3.1.D/3</i>	66%
7647-14-5	sodium chloride Xi; R 36/37/38 <i>Warning: Exclamation mark 3.2/2, 3.3/2A, 3.8/3</i>	26%
10035-04-8	Calcium Chloride Dihydrate Xn, Xi; R 22-36/37/38 <i>Danger: Skull and crossbones 3.1.O/3, 3.2/2, 3.3/2A, 3.8/3</i>	4%

### 3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**  
*R 21/22 Harmful in contact with skin and if swallowed.*  
*R 36/37/38 Irritating to eyes, respiratory system and skin.*
- **Classification system**  
*The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.*
- **NFPA ratings (scale 0-4)**



Health = 2  
 Fire = 0  
 Reactivity = 0

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**· GHS label elements****Warning**

3.1/4 - Harmful if swallowed.

3.1/4 - Harmful in contact with skin.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

3.8/3 - May cause respiratory irritation.

**· Prevention:**

Avoid breathing dust/fume/gas/mist/vapours/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

**· Response:**

**IF SWALLOWED:** Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN:** Wash with plenty of soap and water.

**IF INHALED:** Remove to fresh air and keep at rest in a position comfortable for breathing.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

**· Storage:**

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

**· Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**4 First aid measures****· General information**

Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

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

· **After skin contact** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.

· **After swallowing** Seek immediate medical advice.

**5 Fire fighting measures****· Suitable extinguishing agents**

CO<sub>2</sub>, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.

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**Product name: BD™ Fibronectin, human****· Protective equipment:** No special measures required.

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## 6 Accidental release measures

- **Person-related safety precautions:** Ensure adequate ventilation
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:** Ensure adequate ventilation.
- **Additional information:**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

## 7 Handling and storage

- **Handling**
- **Information for safe handling:**
  - Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** 2-8° C
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with limit values that require monitoring at the workplace:**
  - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal Protective Equipment**
- **General protective and hygienic measures**
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Wash hands before breaks and at the end of work.
  - Avoid contact with the eyes and skin.
- **Breathing equipment:**
  - In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses

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· **Body protection:** Protective work clothing (lab coat).**9 Physical and chemical properties:**· **General Information**

<b>Form:</b>	Solid.
<b>Color:</b>	White
<b>Odor:</b>	Characteristic

· **Change in condition**

<b>Melting point/Melting range:</b>	Not determined
<b>Boiling point/Boiling range:</b>	Not determined

· **Flash point:** Not applicable· **Auto igniting:** Product is not self igniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Vapor pressure:** Not applicable· **Density:** Not determined· **Solubility in / Miscibility with**

<b>Water:</b>	Soluble
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· **pH-value:** Not applicable· **Solvent content:**

<b>Organic solvents:</b>	0.0 %
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· **Solids content:** 100.0 %**10 Stability and reactivity**· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.· **Materials to be avoided:** Incompatible material: strong oxidizers.· **Dangerous reactions** No dangerous reactions known· **Dangerous products of decomposition:**Nitrogen oxides (NO<sub>x</sub>)Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>)

Hydrogen chloride (HCl)

Sulfur oxides (SO<sub>x</sub>)**11 Toxicological information**· **Acute toxicity:**· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** Irritating effect.· **Sensitization:** No sensitizing effects known.· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

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Irritant

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### 12 Ecological information:

- **General notes:** Water hazard class 2 (Self-assessment): hazardous for water.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
 After the product is used, disinfect with bleach (sodium hypochlorite), or an approved disinfectant, or incinerate, or autoclave at 121 C for at least 15 minutes before disposing. Must not be disposed of with solid waste.  
 Dispose of material in accordance with federal (40 CFR 261), state and local requirements.  
 This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -
- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -
- **UN "Model Regulation":** -

### 15 Regulations

- **SARA Section 355 (extremely hazardous substances)**  
 None of the ingredients is listed.
- **SARA Section 313 (specific toxic chemical listings)**  
 None of the ingredients is listed.
- **TSCA (Toxic Substances Control Act)**

1135-40-6	3-(Cyclohexylamino)-1-propanesulfonic acid CAPS
7647-14-5	sodium chloride
- **California Proposition 65 - Chemicals known to cause cancer**  
 None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

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

None of the ingredients is listed.

**· Carcinogenicity categories****· IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

**· NTP (National Toxicology Program)**

None of the ingredients is listed.

**· TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

**· Product related hazard information:**

The product has been classified and marked in accordance with regulations on hazardous materials.

**· Hazard symbols:**

Xn Harmful

**· Hazard-determining components of labeling:**3-(Cyclohexylamino)-1-propanesulfonic acid  
CAPS**· Risk phrases:**21/22 Harmful in contact with skin and if swallowed.  
36/37/38 Irritating to eyes, respiratory system and skin.**· Safety phrases:**7 Keep container tightly closed.  
23 Do not breathe gas/fumes/vapour/spray.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
36/37 Wear suitable protective clothing and gloves.  
60 This material and its container must be disposed of as hazardous waste.**· National regulations****· Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.**16 Other information:**

To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities 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.

**· Department issuing MSDS:** Safety and Environment Department**· Contact:** Technical Service Representative**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement internationale concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

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*IMDG: International Maritime Code for Dangerous Goods*

*DOT: US Department of Transportation*

*IATA: International Air Transport Association*

*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*

*ICAO: International Civil Aviation Organization*

*ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)*

*GHS: Globally Harmonized System of Classification and Labelling of Chemicals*

*ACGIH: American Conference of Governmental Industrial Hygienists*

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

*NFPA: National Fire Protection Association (USA)*

USA