1. Identification

1.1. Product identifier

Product Identity: IDELVION – Coagulation Factor IX (Recombinant), Albumin Fusion Protein

Alternate Names: rIX-FP

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

Intended use: See Technical Data Sheet.

Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name: CSL Behring GmbH
Emil-von-Behring Straße 76
35041 Marburg
Germany

Emergency
U.S. 24 hour Emergency Telephone No.
Emergency Response: (800) 424-9300
Emergency Product Information: (800) 504-5434

Customer Service EU: CSL Behring GmbH
+49 (64 21) 39-0

Customer Service U.S.: CSL Behring LLC
(610) 878-4000

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:
No GHS prevention statements

[Response]:
No GHS response statements

[Storage]:
No GHS storage statements

[Disposal]:
No GHS disposal statements
3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose CAS# 0000057-50-1</td>
<td>0.9-1.5</td>
<td>Not Classified</td>
<td>[1] [2]</td>
</tr>
</tbody>
</table>

[1] Substance classified with a health or environmental hazard.  
*The full texts of the phrases are shown in Section 16.

Non Hazardous Ingredients:  
Coagulation Factor IX (Human), Active ingredient  
Total Protein (<0.8%), NA

Water For Injection, USP, (7732-18-5), Volume adjustment

4. First aid measures

4.1. Description of first aid measures

**General**  
In all cases of doubt, or when symptoms persist, seek medical attention.  
Never give anything by mouth to an unconscious person.

**Inhalation**  
Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

**Eyes**  
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

**Skin**  
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

**Ingestion**  
Rinse from mouth and seek medical guidance. Induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

**Overview**  
Potential Health Effects:  
No adverse health effects anticipated with normal handling and use in appropriate medical setting. Medical implications of therapeutic use are described in product package insert.

**Emergency Overview:** This product is a sterile prescription pharmaceutical. It is to be administered only at the order of a licensed physician. This product is safe when used for its intended purpose and administered as directed by a physician. In addition, no adverse health effects are anticipated as a result of incidental contact or exposure to this product by those handling it or administering it in a therapeutic setting. More detailed information is available in the product package insert. Please report adverse events in patients using this product to the manufacturer at the telephone number listed above.

**Eye/skin contact:** No data. No adverse health effects reported nor anticipated.  
**Skin Absorption:** This product is not absorbed through the skin.  
**Ingestion:** Not intended for oral use. Relatively non-toxic if ingested.  
**Chronic Effects/Carcinogenicity:** None known or anticipated under normal handling and exposure conditions.
5. Fire-fighting measures

5.1. Extinguishing media
Packaging material fires may be extinguished with water, carbon dioxide, or dry chemical.

5.2. Special hazards arising from the substance or mixture
Hazardous decomposition: None known.

5.3. Advice for fire-fighters
Product is not flammable. The only potential fire hazard would involve packaging material. Packaging material fire may produce carbon monoxide and other gaseous asphyxiates plus airborne particulate matter. Firefighting personnel should respond with appropriate protective clothing, firefighting gear, and breathing equipment as trained. All other personnel should exit the area and proceed to a gathering point in an area unaffected by the fire and smoke.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up
Large Spill: Absorb spills with material suitable for aqueous solutions and dispose in solid waste container, or mop spilled material with detergent/water or bleach/water solution and dispose in sanitary sewer. Ventilate area, if desired. Small Spill: Clean area of spill with wetted toweling and dispose in solid waste container, or follow procedure for large spills.

7. Handling and storage

7.1. Precautions for safe handling
Handle containers carefully to prevent damage and spillage.

7.2. Conditions for safe storage, including any incompatibilities
Incompatible materials: None known.
Store in accordance with the conditions specified in the product package insert.
Store and transport <65°C
Store locked up or accessible for authorized persons or their representatives only

7.3. Specific end use(s)
No data available.
8. Exposure controls and personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000057-50-1</td>
<td>Sucrose</td>
<td>OSHA</td>
<td>TWA: 15mg/m³ (total) 5 mg/m³ (resp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ACGIH</td>
<td>TWA: 10 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA: 10 mg/m³ (total) 5 mg/m³ (resp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000057-50-1</td>
<td>Sucrose</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Respiratory: None required.

Eyes: None required to provide protection against this product. Eye protection may be required by procedure of administration.

Skin: None required for protection against the product. Medical-grade examination or surgical gloves may be required by procedure of administration.

Engineering Controls: Not Applicable

Other Work Practices: Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance: White to off-white powder (lyophilized)

Physical Form of Pure Concentrate: Readily soluble, with pale yellow to clear colorless solution

Odor: Unspecified

Odor threshold: Not Measured

pH: 6.9 +/- 0.5

Melting point / freezing point: Unspecified

Initial boiling point and boiling range: Unspecified

Flash Point: NA

Evaporation rate (Ether = 1): Unspecified

Flammability (solid, gas): Not Applicable

Upper/lower flammability or explosive limits: Lower Explosive Limit: NA

Upper Explosive Limit: NA

Vapor pressure (Pa): Unspecified

Vapor Density: Unspecified
Specific Gravity | Unspecified  
Molecular weight | 125kDa  
Solubility in Water | Complete  
Partition coefficient n-octanol/water (Log Kow) | Not Measured  
Auto-ignition temperature | NA  
Decomposition temperature | Unspecified  
Viscosity (cSt) | Not Measured  

9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable for period indicated on the label when stored at conditions specified in product package insert.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Keep away from light.

10.5. Incompatible materials
None known.

10.6. Hazardous decomposition products
None known.

11. Toxicological information

Acute toxicity
Single intravenous injection at doses up to 500 IU/kg was well tolerated in cynomolgus monkeys and rats. The NOAEL was considered to be 500 IU/kg for both species.

Repeat-Dose Toxicity Study:
Repeat-dose toxicity in rats and cynomolgus monkeys after intravenous injection at doses up to 500 IU/kg for up to 28 days was well tolerated with no adverse changes. The NOAEL was considered to be 500 IU/kg b.w. for both species.

Local Tolerance:
Intravenous, intra-arterial and perivenous injection was well tolerated in the rabbit with no local or systemic signs of reaction to treatment.

Safety Pharmacology:
In a rat safety pharmacology study, no effects on respiratory parameters (e.g. respiration rate, tidal volume and minute volume) were observed. The NOAEL was considered to be at least 500 IU/kg.

Thrombogenicity:
The thrombogenic potential was evaluated in the Wessler stasis model in rabbits. No thrombogenic activity up to
doses of 500 IU/kg was shown.

**Genotoxicity:**
The genotoxicity potential was assessed in the Ames test and in the in vitro-mammalian chromosome aberration test in human lymphocytes. No evidence of mutagenic activity in the bacterial system and no evidence of causing an increase in the frequency of structural chromosome aberrations was shown.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LD50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LD50, mg/L/4hr</th>
<th>Inhalation Gas LD50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

CAS Number: 0000057-50-1

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Respiratory sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>---</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

**12. Ecological information**

**12.1. Toxicity**
No ecological damage or persistence in the environment expected under normal conditions of use or with proper disposal. Environmental fate and transport of this product have not been studied.

**Aquatic Ecotoxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sucrose</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

CAS Number: 0000057-50-1
12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
This material should be disposed of in accordance with local, state and / federal regulations. Not classified as Hazardous waste.
EWC-Code: 180109 (070599)

Observe all federal, state and local regulations when disposing of this substance. Waste must be disposed of in accordance with federal, state and local environmental regulations. Uncontaminated product may be disposed by flushing down the sanitary sewer, or by mixing with a liquid sorbent and then placing mixture in the solid waste container for disposal. Incineration is the preferred method of disposal for any contaminated product.

14. Transport information

14.1. UN number
DOT (Domestic Surface Transportation) Not Applicable
IMO / IMDG (Ocean Transportation) Not Regulated
ICAO/IATA Not Regulated

14.2. UN proper shipping name
Not Applicable
Not Regulated
Not Regulated

14.3. Transport hazard class(es)
DOT Hazard Class: Not Applicable
DOT Label: ---
IMDG: Not Applicable
Sub Class: Not Applicable
Air Class: Not Applicable

14.4. Packing group
Not Applicable
Not Applicable
Not Applicable

14.5. Environmental hazards
IMDG Marine Pollutant: No

14.6. Special precautions for user
No further information

15. Regulatory information

Regulatory Overview The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)
WHMIS Classification

All components of this material are either listed or exempt from listing on the TSCA Inventory.
Not Regulated

US EPA Tier II Hazards

Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): No
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

N.J. RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Penn RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is: Not Applicable

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information contained herein is based upon data considered true and accurate. CSL Behring makes no warranties, express or implied, as to the adequacy of the information contained herein. This information is offered solely for the user's consideration, investigation, and verification. Report to the manufacturer any allegations of health effects resulting from handling or accidental contact with this material.

End of Document