# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **Factor XIIa Human, 0.5 mg**

**Other means of identification**

**Product code** 412HA

**Recommended use** Research use only.

**Recommended restrictions** Use in accordance with supplier's recommendations.

**Manufacturer/Importer/Supplier/Distributor information**

**Corporate Headquarters**
BioMedica Diagnostics Inc.
94 Wentworth Road, PO Box 1030
Windsor, Nova Scotia CANADA B0N 2T0

**Contact person**
Corporate Phone: 1-902-798-5105
Corporate Fax: 1-902-798-1025
Email: info@biomedicadiagnostics.com Website: www.biomedicadiagnostics.com

**Emergency Telephone Numbers**
US, Canada, Puerto Rico & Virgin Islands 1-800-255-3924
International +1-813-248-0585 Australia 1-300-954-583
Brazil 0-800-591-6042 China 400-120-0751
India 000-800-100-4086 Mexico 01-800-099-0731

**Contract number** MIS9591327

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Hazard symbol** None.

**Signal word** None.

**Hazard statement** The mixture does not meet the criteria for classification.

**Precautionary statement**

**Prevention** Observe good laboratory hygiene practices.

**Response** Wash with plenty of water.

**Storage** Store away from incompatible materials.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**Hazard(s) not otherwise classified (HNOC)** None known.

## 3. Composition/information on ingredients

**Mixtures**

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

## 4. First-aid measures

**Inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** For skin contact flush with large amounts of water while removing contaminated clothing. Get medical attention if irritation develops and persists.

**Eye contact** In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.

**Ingestion** If material is ingested, immediately contact a poison control center.

**Most important symptoms/effects, acute and delayed** Ingestion may cause irritation and malaise.

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|---|---|
| **Indication of immediate medical attention and special treatment needed** | Provide general supportive measures and treat symptomatically. |
| **General information** | Ensure that medical personnel are aware of the material(s) involved. |

## 5. Fire-fighting measures

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|---|---|
| **Suitable extinguishing media** | Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire. |
| **Unsuitable extinguishing media** | None known. |
| **Specific hazards arising from the chemical** | None known. |
| **Special protective equipment and precautions for firefighters** | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| **Fire fighting equipment/instructions** | Use standard firefighting procedures and consider the hazards of other involved materials. |
| **General fire hazards** | The product is not flammable. |

## 6. Accidental release measures

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|---|---|
| **Personal precautions, protective equipment and emergency procedures** | Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. |
| **Methods and materials for containment and cleaning up** | Absorb spill with vermiculite or other inert material. Dispose of waste in accordance with all applicable federal, state, local and provincial environmental regulations, per Section 13. |
| **Environmental precautions** | Do not allow to enter drains, sewers or watercourses. |

## 7. Handling and storage

| | |
|---|---|
| **Precautions for safe handling** | Avoid inhalation of mists or aerosols. Avoid contact with skin and eyes. Avoid prolonged and repeated contact. Provide adequate ventilation. The source material for this product is of human origin and has been found to be non-reactive for Hepatitis B Surface Antigen (HBsAg), Hepatitis C Virus (HCV) and Human Immunodeficiency Virus Type 1 and Type 2 (HIV-1, HIV-2) using registered methods. As no known test method can provide complete assurance that products derived from human specimens will not transmit HBsAg, HCV, HIV-1, HIV-2 or other blood-borne pathogens, this reagent should be handled as recommended for any potentially infectious human specimen. |
| **Conditions for safe storage, including any incompatibilities** | Store in closed original container at temperature -70°C . Store in a closed container away from incompatible materials. |

## 8. Exposure controls/personal protection

| | |
|---|---|
| **Occupational exposure limits** | No exposure limits noted for ingredient(s). |
| **Biological limit values** | No biological exposure limits noted for the ingredient(s). |
| **Appropriate engineering controls** | Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors. |

**Individual protection measures, such as personal protective equipment**

| | |
|---|---|
| **Eye/face protection** | Wear approved safety glasses or goggles. |
| **Skin protection** | |
| **Hand protection** | Wear appropriate chemical resistant gloves. |
| **Other** | Wear lab coat or other protective garments. Remove contaminated clothing promptly. |
| **Respiratory protection** | Under normal conditions, respirator is not normally required. |
| **Thermal hazards** | Wear appropriate thermal protective clothing, when necessary. |
| **General hygiene considerations** | Handle in accordance with good industrial hygiene and safety practice. |

## 9. Physical and chemical properties

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|---|---|
| **Appearance** | Clear, colorless solution. |
| **Physical state** | Liquid. |
| **Form** | Liquid. |
| **Color** | Not available. |

| | |
|---|---|
| **Odor** | None. |
| **Odor threshold** | Not available. |
| **pH** | 5.3 |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not applicable. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit - lower (%)** | Not available. |
| **Flammability limit - upper (%)** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |
| **Solubility(ies)** | |
| **Solubility (water)** | Water soluble. |
| **Partition coefficient (n-octanol/water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |
| **Other information** | |
| **Explosive properties** | Not explosive. |
| **Oxidizing properties** | Not oxidizing. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical stability** | Stable under normal storage and handling conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerization does not occur. |
| **Conditions to avoid** | None under normal conditions. |
| **Incompatible materials** | Strong oxidizers, strong acids, and strong bases. |
| **Hazardous decomposition products** | None expected under normal conditions of use. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Vapors may irritate throat and respiratory system and cause coughing. |
| **Skin contact** | Prolonged skin contact may cause redness, irritation and dry skin. |
| **Eye contact** | Splashes in the eyes may cause redness and irritation. |
| **Ingestion** | May cause discomfort if swallowed. |
| **Symptoms related to the physical, chemical and toxicological characteristics** | Ingestion may cause irritation and malaise. |

**Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** | May cause discomfort if swallowed. |
| **Skin corrosion/irritation** | Prolonged skin contact may cause redness, irritation and dry skin. |
| **Serious eye damage/eye irritation** | May cause eye irritation. |

**Respiratory or skin sensitization**

| | |
|---|---|
| **Respiratory sensitization** | Not classified. |
| **Skin sensitization** | No data available. |
| **Germ cell mutagenicity** | Not classified. |
| **Carcinogenicity** | Not classified. |

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

| | |
|---|---|
| **Reproductive toxicity** | Not classified. |
| **Specific target organ toxicity - single exposure** | Not classified. |
| **Specific target organ toxicity - repeated exposure** | Not classified. |
| **Aspiration hazard** | Not classified. |
| **Chronic effects** | No data available. |
| **Further information** | No other specific acute or chronic health impact noted. |

## 12. Ecological information

| | |
|---|---|
| **Ecotoxicity** | No ecotoxicity data noted for the ingredient(s). |
| **Persistence and degradability** | No data is available on the degradability of this product. |
| **Bioaccumulative potential** | Not available. |
| **Mobility in soil** | Not available. |
| **Mobility in general** | The product is soluble in water. |
| **Other adverse effects** | The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |

## 13. Disposal considerations

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|---|---|
| **Disposal instructions** | Dispose in accordance with all applicable regulations. Contract with a licensed chemical disposal agency. |
| **Hazardous waste code** | The waste code should be assigned in discussion between the user, the producer and the waste disposal company and/or appropriate testing. |
| **Waste from residues / unused products** | Dispose in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| **Contaminated packaging** | Empty containers should be taken to an approved waste handling site for recycling or disposal. |

## 14. Transport information

**DOT**

Not regulated as dangerous goods.

**IATA**

Not regulated as dangerous goods.

**IMDG**

Not regulated as dangerous goods.

| | |
|---|---|
| **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | Not applicable. |

## 15. Regulatory information

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|---|---|
| **US federal regulations** | This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. |

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. New Jersey Worker and Community Right-to-Know Act**

Not listed.

**US. Pennsylvania Worker and Community Right-to-Know Law**

Not listed.

**US. Rhode Island RTK**

Not regulated.

**US. California Proposition 65**

Not Listed.

**International Inventories**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | Yes |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 01-December-2017

**Revision date** 12-July-2017

**Version #** 02

**NFPA ratings**

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