

# SAFETY DATA SHEET

SDS for XPF® Radiation Attenuating Apparel

SECTION 1	IDENTIFICATION
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- (a) Product Identifier: XPF® Radiation Attenuating Apparel
- (b) Synonyms: Radiation Protection Apparel, Radiation Protection Technology, X-Ray Protection Garments, Radiation Attenuation Device
- (c) Use: For shields against ionizing radiation such as X-rays, Fluoroscopy or CT technology.
- (d) Manufacturer: BLOXR Solutions, LLC  
2250 S 1300 West, Suite C  
Salt Lake City, UT 84119  
855-256-9729  
Emergency Phone Number: 801-590-9880

SECTION 2	HAZARD(S) IDENTIFICATION
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- (a) Classification: Not classified as a hazardous material
- (b) Signal word: Not applicable
- (c) Eyes: May be irritating to eyes  
Skin: May be irritating to skin  
Inhalation: May be irritating to respiratory system  
Ingestion: None expected
- (d) Not applicable



SECTION 3	COMPOSITION/INFORMATION ON INGREDIENTS
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- (a – b) Chemical name and concentration range:  
Bismuth Oxide, 0-90%  
Neutral Non-Phthalate Plastisol, 5-95%  
Barium Sulfate, 0-90%
- (c) CAS Number: None

SECTION 4	FIRST-AID MEASURES
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- (a) Eyes: If irritation occurs, rinse opened eye cautiously for several minutes under running water. Remove contact lenses, if present and easy to do. Then consult a doctor.  
Skin: If irritation occurs wash with water and soap and rinse thoroughly. Seek immediate medical advice.  
Inhalation: If inhalation occurs, supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice.  
Ingestion: Seek immediate medical advice if swallowed.
- (b) Important symptoms: not applicable
- (c) Indication of immediate medical attention: Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

SECTION 5	FIRE-FIGHTING MEASURES
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- (a) Extinguishing media: Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- (b) Specific hazards: In case of fire, the following can be released: oxides of carbon, hydrogen chloride, metal oxide fume.
- (c) Special equipment precautions: Wear self-contained respirator. Wear fully protective impervious suit.

SECTION 6	ACCIDENTAL RELEASE MEASURES
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- (a) Precaution: Keep product free of tears or cracks to prevent release.
- (b) Method for cleaning up: Dispose of apparel in accordance with local, regional, national, international laws and regulations.

SECTION 7	HANDLING AND STORAGE
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- (a) Precautions: The product is combustible and should be stored away from ignition sources and oxidizing agents. If necessary to prevent exposure, wear protective gloves/protective clothing/eye protection/face protection.
- (b) Conditions: Store in cool, dry place, recommended storage and use temperature below 35 degrees Celsius (95 degrees Fahrenheit).

SECTION 8	EXPOSURE CONTROLS/PERSONAL PROTECTION
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- (a) PEL limit: not applicable
- (b) Engineering controls: not applicable
- (c) Individual protection measures: The usual precautionary measures for handling chemicals should be followed.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
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- (a) Appearance: Solid form; tan/light green color
- (b) Odor: odorless
- (c) Odor threshold: not applicable
- (d) pH: not applicable
- (e) Melting point/freezing point: >150°F
- (f) Initial boiling point and boiling range: Not determined
- (g) Flash point: Not applicable
- (h) Evaporation rate: No data available
- (i) Flammability: No data available
- (j) Upper/lower flammability or explosive limits: Product does not present an explosion hazard
- (k) Vapor Pressure: not determined
- (l) Vapor density: not determined
- (m) Relative density: approx. 3 g/cm<sup>3</sup> at 20°C (68°F)
- (n) Solubility(ies): Insoluble
- (o) Partition coefficient: n-octanol/water: not determined
- (p) Auto-ignition temperature: not determined
- (q) Decomposition temperature: not determined
- (r) Viscosity: Not applicable

SECTION 10	STABILITY AND REACTIVITY
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- (a) Reactivity: Not applicable
- (b) Chemical Stability: Stable
- (c) Possibility of hazardous reactions: None known
- (d) Conditions to avoid: Decomposition will not occur if used and stored according to instructions.
- (e) Incompatibility: None known
- (f) Hazardous Decomposition Products: Hydrogen chloride

SECTION 11	TOXICOLOGICAL INFORMATION
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- (a) Route of exposure: Bismuth and bismuth compounds are often poorly absorbed.
- (b) Symptoms: May be irritant to skin, eyes and mucous membranes. Should absorption occur, exposure may cause loss of appetite, headache, skin rash, exodermatitis, kidney injury and

jaundice. Repeated or prolonged exposure may cause a bismuth line or black spots on the gums, foul breath and salivation.

- (c) Delayed and immediate effects: Acute and chronic toxicity of this substance is not fully known.
- (d) Numerical measures: LD/LC50 values that are relevant for classification:
  - a. Oral, LD50 10 gm/kg (mouse), 5 gm/kg (rat)
- (e) Listing in NTP or IARC or OSHA: Not applicable

SECTION 12	ECOLOGICAL INFORMATION
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See disposal section 13 considerations for more information.

SECTION 13	DISPOSAL CONSIDERATIONS
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Follow applicable local/state/regional/national/international laws and regulations.

SECTION 14	TRANSPORT INFORMATION
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Not applicable

SECTION 15	REGULATORY INFORMATION
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All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory. All components of this product are listed on the Canadian Domestic Substances List (DSL).

SECTION 16	OTHER INFORMATION
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National Fire Protection Association (NFPA) Ratings: This information is intended solely for the use of individuals trained in the NFPA system.

- Health: 1
- Flammability: 1
- Reactivity: 0

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Revision Level: B (formerly 79007A, 4/21/16; ENG 730-01 REV B, 8/10/15; ENG 730-01 REV A, 11/20/13)

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