

SAFETY DATA SHEET

AMTIR-1

Section 1 - Identification

Product Identifier: AMTIR-1

Manufacturer's Name: Amorphous Materials, Inc.

Address: 3130 Benton Street, Garland, Texas 75042

Phone number: 972-494-5624

Emergency number #1: (972) 494-5624

Emergency number #2: (469) 236-4142

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Section 2 – Hazard(s) Identification

Product Classified as: Non-hazardous. (See Section 9 for further explanation.)

Section 3 – Composition / Information on Ingredients

Ingredients: Germanium

Arsenic

Selenium

Product classification: Non-hazardous. (See Section 9 for further information.)

Warning statement: None considered necessary.

A Threshold Limit Value (TLV) has not been established for AMTIR-1. Nor, has the Occupational Safety and Health Administration (OSHA) set a Permissible Exposure Limit (PEL).

Section 4 - First Aid Measures

No special first aid measures are required with this product. Normal first aid procedures should be available, such as:

Eye Exposure: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. An exposed person may need assistance in keeping his or her eye lids open. Get immediate medical attention.

Skin Exposure: Wash the affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation occurs.

Inhalation: Remove exposed person to fresh air. Closely monitor the victim for signs of respiratory problems. In such cases seek immediate medical assistance.

Ingestion: Seek medical attention immediately.

Section 5 - Fire Fighting Measures

Flash Point: Not applicable

Flammable Limits: Not applicable

Special Fire Fighting Equipment Required: No special techniques are required. Use extinguisher type suitable for surrounding area.

Section 6 - Accidental Release Measures

Not applicable.

Section 7 - Handling and Storage

No special handling precautions are required other than necessary to protect the product. There are no incompatibilities.

Section 8 - Exposure Controls / Personal Protection

No special exposure controls or personal protective equipment is required in working with this product. Regular work procedures should be followed, such as:

Ventilation: Ventilation should be provided sufficient to remove any dusts, mists or odors that may evolve during processing. Local exhaust air of 100 lineal feet per minute (lfm) face velocity should be adequate.

Respiratory Protection: Ordinarily, respiratory protection is not required if adequate ventilation is provided. In unventilated areas a high efficiency respirator should be used.

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Protective Clothing: Rubber gloves or plastic face shields should be provided.

Eye Protection: Chemical workers goggles or plastic face shields should be used to provide eye protection from dusts, fumes, mists or flying particles should product break or fragment during processing.

Section 9 - Physical and Chemical Properties

Appearance: Dark colored, glassy solid

Odor: Odorless

Flammability: Non-flammable

Solubility: Insoluble in water and acids. Slightly soluble in strong alkaline solutions.

This product is compounded from toxic materials. Its final form is a dark, glassy material. The extreme chemical inertness of this glass prevents deterioration in hostile environments due to heat or chemicals. Separation of the glass back into the original elements or their oxides is only possible with high temperatures, special equipment and/or chemistry-based efforts. It does not normally occur in nature. The non-hazardous nature of this product has been echoed by OSHA and the U.S. Dept. Of Transportation. An OSHA official specifically stated “. . . for example, 29CFR1910.1018 does not apply when light emitting diodes containing gallium arsenide conductors are assembled into calculators or watches. That is because only minimal gallium arsenide will rub off onto the hands or volatilize during the process.” Gallium arsenide is a similar product. Similarly, the Chief of the Office of Hazardous Materials Standards of the U.S. Department of Transportation advised in written correspondence that “Based on information available to this office, gallium arsenide does not meet the definition of any of the hazardous materials prescribed in the Hazardous Materials Regulations (HMR; 49CFR Parts 171-180). Therefore, this material is not a hazardous material

and is not subject to the HMR.” The same applies to AMTIR-1 since it is a similar product.

Section 10 - Stability and Reactivity

Eye Protection: Non-reactive

Chemical Stability: Stable

Incompatible Materials: None

Chemical workers goggles or plastic face shields should be used to provide eye protection from dusts, fumes, mists or flying particles should product break or fragment during processing.

Section 11 - Toxicological Information

The base materials for this material are considered hazardous. However, the manufacturing process compounds the base materials into a hard, glassy (amorphously-inert) product. It will not decompose with handling or be absorbed into the skin, even at unusually high temperatures, atmospheric pressures or humidity's. Thus, there is no hazardous exposure to processors or users of this material.

Section 12 - Ecological Information

This material does not decompose or deteriorate over its lifetime and will not present a chemical environmental hazard. Like any glass, it can break into sharp-edged pieces and should be disposed, accordingly, when necessary.

Section 13 - Disposal Considerations

Waste Disposal: Due to the probable value of scrap material, waste should be collected and returned to the vendor for salvage or reclamation, whenever possible. Non-salvageable or non-reclaimable waste material should be disposed according to applicable, local, state and federal regulations.

Section 14 - Transport Information

This material DOES NOT appear on the “List of Hazardous Materials,” promulgated by the U.S. Department of Transportation. Therefore, labeling and placarding is not required. (See Section-9, Physical and Chemical Properties, for more info.)

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Section 15 - Regulatory Information

None applicable.

Section 16 - Other Information

Special Note: This Safety Data Sheet (SDS) is considered for all intents and purposes to be essentially similar to OSHA Form-174 (a non-mandatory MSDS format). It is submitted in lieu thereof.

This data is submitted gratuitously and independent of any sale of the product, to be used by you in any manner you deem fit, including verification for completeness and accuracy.

Notwithstanding, while believed to be correct, Amorphous Materials, Inc. makes no representation with respect to the completeness or accuracy, of the information contained, herein.

For additional information about this form and your rights, contact the U.S. Department of Labor, Occupational Safety and Health Administration.

www.osha.gov

(800) 321-OSHA (6742)

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