

**Section 1 Chemical Product and Company Identification**

**1.1 Product identifiers**

Product name: Ferris® Beads 2194 Aqua

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

Identified uses: Jewelry Injection Wax

**1.3 Details of the supplier of the safety data sheet**

Freeman Manufacturing & Supply Company  
 1101 Moore Road, Avon, OH 44011  
 Telephone (440) 934-1902  
 www.freemansupply.com

**1.4 Emergency telephone number**

CHEMTREC (800) 424-9300

**Section 2 Hazards Identification**

**2.1 Classification of the substance or mixture**

Not classified according to OSHA 29 CFR 1910.1200 HCS

**2.2 GHS Label elements, including precautionary statements**

No label element(s) required

**2.3 Hazards not otherwise classified**

Molten product can cause serious burns.

**Section 3 Composition/Information on Ingredients**

**3.1 Mixture of Substances**

Proprietary mixture of synthetic and natural waxes, resin(s), additive(s), and oil soluble dye(s).  
 No components need to be disclosed according to the applicable regulations.

**Section 4 First Aid Measures**

**4.1 Description of first aid measures**

**Inhalation** Get medical assistance if irritation develops or persists. If breathing is difficult, move the person to fresh air. Give artificial respiration if person is not breathing.

**Skin contact** For thermal burns, flush or submerge effected area in cold water to dissipate heat. Cover with clean bandage material. Do not peel material from skin. Get medical attention. For contact at ambient temperatures, wash with soap and water.

**Eye contact** Immediately flush with plenty of water for at least 15 minutes. If irritation persists, get medical attention immediately, preferably an ophthalmologist.

**Ingestion** If swallowed, rinse mouth with water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Consult a physician if necessary.

**Section 5 Fire Fighting Measures**

**5.1 Extinguishing media**

**Suitable extinguishing media:** Water fog, dry chemical, foam, carbon dioxide.  
**Unsuitable extinguishing media:** Do not use a solid water stream as it may scatter and spread fire.

**5.2 Special hazards arising from the substance or mixture**

**Unusual Fire and Explosion Hazards:** Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. See Section 10 for possible products of hazardous combustion.

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

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## Section 6 Accidental Release Measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Wear appropriate personal protective equipment, see Section 8.

### 6.2 Environmental precautions

Should not be released into the environment. Prevent product from entering drains.

### 6.3 Methods and materials for containment and cleaning up

Do not walk through spilled material. Avoid dust formation. Contain spillage and use clean non-sparking tools to collect material. Shovel spillage into suitable container for disposal.

## Section 7 Handling and Storage

### 7.1 Precautions for safe handling

Wear appropriate personal protective equipment, see Section 8. Avoid contact with skin and eyes. Wash thoroughly with soap and water after handling. Do not use in areas without adequate ventilation. Avoid breathing fumes. Avoid dust formation. Avoid contact with molten material.

**Specific end use(s):** Avoid heating above 100°C (212°F) during the normal investment casting process (except dewax operations). Do not let molten product stand in melt tanks and injection machines, stir product continuously.

### 7.2 Conditions for safe storage, including any incompatibilities

Store at ambient temperatures. Keep in closed container when not in use. Keep away from ignition sources, heat, open flames, and direct sunlight. Do not store with incompatible materials, see Section 10.

## Section 8 Exposure Controls/Personal Protection

### 8.1 Control parameters

Substance Name	Exposure Limit / Standard	Source
Wax fumes	2 mg/m <sup>3</sup> TWA	ACGIH

### 8.2 Exposure controls

#### Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation may be needed in special circumstances, such as poorly ventilated spaces, very hot processing, mechanical generation of dusts, etc.

### 8.3 Personal protective equipment

#### Eye/Face

Wear safety glasses equipped with side shields, or safety goggles.

#### Hands

Chemical protective gloves should not be needed when handling this material. Use gloves to protect from mechanical injury. Use gloves with insulation for thermal protection when needed.

#### Skin/Body

No precautions other than clean body-covering clothing should be needed.

#### Respiratory

The need for respiratory protection is not anticipated under normal use conditions and with adequate ventilation. If elevated airborne concentrations above applicable workplace exposure levels are anticipated, or when adverse effects such as respiratory irritation has been experienced, or where indicated by your risk assessment process, then use an approved air-purifying respirator. Use an approved air-purifying respirator with organic vapor cartridge and particulate pre-filter when vapors are generated at increased temperatures.

#### Safety Stations

Make emergency eyewash stations and washing facilities available in work area.

#### General Hygienic Practices

Wash thoroughly after handling, and before eating, drinking or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse. Avoid contamination of food, beverages, or smoking

## Ferris® Beads 2194 Aqua

### Section 9 Physical and Chemical Properties

#### 9.1 Information on basic physical and chemical properties

<b>Physical State</b>	Solid
<b>Color</b>	Aqua
<b>Odor</b>	Mild
<b>Odor Threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting Point</b>	>154°F (>68°C)
<b>VOC Content</b>	0
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	465°F (240°C)
<b>Evaporation rate</b>	No data available
<b>Flammability (solid, gas)</b>	No data available
<b>Upper/lower flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Vapor Density</b>	No data available
<b>Relative Density (g/cc)</b>	0.9 ± 0.05
<b>Water Solubility</b>	Negligible
<b>Coefficient: n-octanol/ water</b>	No data available
<b>Auto-Ignition Temperature</b>	No data available
<b>Viscosity</b>	Solid at room temperature
<b>Explosive Properties</b>	None
<b>Oxidizing Properties</b>	None

### Section 10 Stability and Reactivity

<b>10.1 Reactivity:</b>	No dangerous reaction known under conditions of normal use.
<b>10.2 Chemical stability:</b>	Stable under recommended storage conditions.
<b>10.3 Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>10.4 Conditions to avoid:</b>	Heat, sparks, open flame. Avoid dust formation.
<b>10.5 Incompatible materials:</b>	Strong oxidizing agents.
<b>10.6 Hazardous decomposition products</b>	May include: carbon monoxide, carbon dioxide

### Section 11 Toxicological Information

<b>11.1 Information on likely routes of exposure</b>	Eye contact, skin contact, ingestion
<b>Acute Oral Toxicity</b>	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
<b>Acute Dermal Toxicity</b>	No adverse effects anticipated from skin absorption.
<b>Acute Inhalation Toxicity</b>	Vapors released during thermal processing may cause respiratory irritation.
<b>Skin Corrosion/Irritation</b>	Classification criteria not met
<b>Serious Eye Damage/Eye Irritation</b>	Classification criteria not met
<b>Respiratory or Skin Sensitization</b>	Classification criteria not met
<b>Germ Cell Mutagenicity</b>	Classification criteria not met
<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by IARC, NTP, or OSHA.
<b>Reproductive Toxicity</b>	Classification criteria not met
<b>Aspiration Hazard</b>	Not relevant
<b>Specific Target Organ Toxicity (STOT)</b>	
<b>Single Exposure</b>	Not expected
<b>Repeated Exposure</b>	No data available

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### Section 12 Ecological Information

12.1 Toxicity	Not expected to be harmful to aquatic organisms
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	No data available
12.5 Results of PBT & vPvB assessment	No data available

### Section 13 Disposal Considerations

13.1 Disposal	Follow applicable Federal, State, and local regulations.
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### Section 14 Transport Information

14.1 DOT, TDG, IMO/IMDG, IATA/ICAO:	Not regulated
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### Section 15 Regulatory Information

#### 15.1 Safety, health and environmental regulations/legislation specific for the product

**Inventories:** This product complies with the following inventories: Canada DSL/NDSL, USA TSCA

**SARA 311/312 Hazards Classifications:** None

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**RCRA:** In the form delivered, this product is not considered as hazardous waste, and is not subject to reporting under the Resource Conservation and Recovery Act.

**California Proposition 65:** ⚠️ **WARNING:** This product may expose you to chemicals including o-Aminoazotoluene, which is known to the State of California to cause cancer. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Chemical Name	CAS Number	Concentration (%)	No Significant Risk Level (NSRL)
o-Aminoazotoluene	97-56-3	<0.06 (estimated)	0.2 µg/day

### Section 16 Other Information

#### 16.1 Disclaimer

The following supersedes Buyer's documents. SELLER MAKES NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict of liability arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results are based on controlled lab work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

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