

**Section 1 Identification**

**1.1 Product identifiers**

Ferris® 2283-A Green Water Soluble Wax

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

Non-filled investment casting wax specifically formulated for the jewelry industry. For professional use only.

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

Freeman Manufacturing & Supply Company  
1101 Moore Road, Avon, OH 44011-4043 USA  
Telephone: +1 800 321-8511  
Email: wax@freemansupply.com

**1.4 Emergency telephone number**

CHEMTREC +1 800 424-9300

**Section 2 Hazards Identification**

**2.1 Classification of the substance or mixture**

Not classified according to OSHA 29 CFR 1910.1200

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

No label element(s) required

**2.3 Hazards not otherwise classified**

Molten product may cause serious burns.

**Section 3 Composition/Information on Ingredients**

**3.1 Mixture of Substances**

Proprietary mixture of synthetic waxes, synthetic polymers, and 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:** Move person to fresh air. Get medical assistance if irritation develops or persists.

Give artificial respiration if person is not breathing.

**Skin contact:** Wash off with plenty of soap and water. Get medical assistance if irritation develops or persists.

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.

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

**Ingestion:** If swallowed, consult a physician. Rinse mouth with water. Never give anything by mouth to an unconscious person.

**Section 5 Fire Fighting Measures**

**5.1 Extinguishing media**

Use fine water spray, water fog, or foam Do not use high volume water jet, carbon dioxide (CO<sub>2</sub>), or dry powder.

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

**Unusual Fire and Explosion Hazards:** Do not use direct water stream, as it may spread fire. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Product is a waxy solid and is not expected to form dust. Organic dusts at sufficient concentration may form explosive mixtures in air.

**Hazardous Combustion Products:** Carbon dioxide, carbon monoxide, nitrogen oxides, irritating smoke

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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### Section 6 Accidental Release Measures

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

Wear appropriate personal protective equipment, see section 8.

#### 6.2 Environmental precautions

Do not release into the environment. Prevent from entering soil, ditches, sewers, waterways and/or groundwater.

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

Do not walk through spilled material. Contain spillage and use clean non-sparking tools to collect material into suitable container for disposal. Flush any residue with water.

### Section 7 Handling and Storage

#### 7.1 Precautions for safe handling

Do not heat material above 200°F. Avoid breathing vapors. Provide appropriate exhaust ventilation.

Do not get in eyes or mouth or on skin. Keep away from sources of ignition. Use normal precautions when handling hot molten liquid solutions. Dust should not be generated under normal use conditions.

#### 7.2 Conditions for safe storage

Store at temperatures not exceeding 30°C (86°F) in closed containers. Avoid prolonged exposure to heat or air. Keep away from sources of heat, sparks, or open flames. Shelf life: Use within 24 months from receipt.

### Section 8 Exposure Controls/Personal Protection

#### 8.1 Control parameters

**Exposure limits:** Contains no substances with applicable occupational exposure limit values.

#### 8.2 Exposure controls

**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, closed systems, or respiratory and eye protection 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:** With product at ambient temperatures, use safety glasses equipped with side shields.

Use a full-face shield and safety glasses if handling heated material.

**Hands:** Use gloves chemically resistant to this material when prolonged or frequent repeated contact could occur. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: neoprene, polyvinyl chloride (PVC) or butyl rubber gloves. When handling product at elevated temperatures, use heat-resistant gloves.

**Skin/Body:** Prevent skin contact, wear long sleeves and/or coveralls.

**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, use an N95 dust mask for limited exposure. For prolonged exposure use an air-purifying respirator. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

**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 breathing dust, vapor or mist. Avoid contamination of food, beverages, or smoking materials.

### Section 9 Physical and Chemical Properties

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

<b>Physical State:</b>	Waxy solid
<b>Color:</b>	Green
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	No data available

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### Section 9 Physical and Chemical Properties

<b>pH:</b>	4.0-8.0 (5% aqueous solution)
<b>Melting Point:</b>	>140°F (>60°C)
<b>Boiling Point:</b>	>200°F (>93°C)
<b>Decomposition Temperature:</b>	No data available
<b>Flash Point:</b>	Approximately 475°F (246°C)
<b>Flammability:</b>	Not ignitable
<b>Lower Explosion Limit:</b>	No data available
<b>Upper Explosion Limit:</b>	No data available
<b>Vapor Density:</b>	No data available
<b>Specific Gravity:</b>	1.2
<b>Water Solubility:</b>	Soluble
<b>Partition Coefficient: n-octanol/water:</b>	No data available
<b>Autoignition Temperature:</b>	No data available
<b>Viscosity:</b>	Solid at room temperature, >1,500 cP at 150°F

### Section 10 Stability and Reactivity

#### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

#### 10.3 Possibility of hazardous reactions

No dangerous reactions known under conditions of normal use.

#### 10.4 Conditions to avoid

Do not heat material above 200°F. Protect from freezing. Avoid sunlight, heat, sparks, open flame.

#### 10.5 Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

#### 10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials.

Decomposition products can include and are not limited to: Aldehydes, alcohols, ethers, carbon dioxide, carbon monoxide, carboxylic acids, nitrogen oxides, polymer fragments

### Section 11 Toxicological Information

#### 11.1 Information on toxicological effects

<b>Acute oral toxicity</b>	LD50 (Rat): > 10,000 mg/kg (Estimated)
<b>Acute inhalation toxicity</b>	No data available
<b>Acute dermal toxicity</b>	No data available
<b>Skin corrosion/irritation</b>	Prolonged exposure is not likely to cause significant skin irritation. May cause a more severe response if skin is abraded.
<b>Serious eye damage/irritation</b>	May cause slight temporary eye irritation. Corneal injury is unlikely.
<b>Respiratory and skin sensitization</b>	Not expected. Not classified due to lack of data.
<b>Germ cell mutagenicity</b>	Not expected. Not classified due to lack of data.
<b>Aspiration hazard</b>	Based on physical properties, not an aspiration hazard.
<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>	No data available
<b>Specific Target Organ Toxicity (STOT)</b>	
- single exposure	Not expected. Not classified due to lack of data.
- repeated exposure	Not expected. Not classified due to lack of data.

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### Section 12 Ecological Information

12.1 Toxicity	No data available
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

All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. The preferred options include sending to a licensed/permitted incinerator or other thermal destruction method. Take precautions to guard against the formation of dust clouds during incineration.

### Section 14 Transport Information

14.1 DOT, IATA, IMDG	Not regulated as dangerous goods
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### Section 15 Regulatory Information

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

**United States TSCA Inventory (TSCA):** All components of this product are in compliance with the inventory.

**Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312:** No SARA Hazards

**SARA Section 302:** This material does not contain any components with a section 302 EHS TPQ.

**SARA Section 313:** This product does not contain chemicals at levels which require reporting under this statute.

**Pennsylvania Right To Know:** 1-Vinyl-2-Pyrrolidone, - Vinyl Acetate Polymer (CAS 25086-89-9) 20%

**Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65):** ⚠️ WARNING: This product may expose you to chemicals including acetaldehyde, 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)
Acetaldehyde	75-07-0	≤0.01 (estimate)	90 µg/day (Inhalation)

### 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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