

Section 1 Identification

Product identifiers

Product name: Ferris Bead 1467A Dark Red, 1467A Dark Red Slab

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

Identified uses: Sculpture wax for use in precision investment casting industry

Uses advised against: None known

Details of the supplier of the safety data sheet

Freeman Manufacturing & Supply Company

1101 Moore Road, Avon, OH 44011

Telephone (440) 934-1902

Email contactus@freemansupply.com

Emergency Telephone Number

CHEMTREC (800) 424-9300

HMIS	
H	1
F	1
R	0
PPE Sec. 8	

Section 2 Hazards Identification

Classification of the substance or mixture

Not a hazardous substance or mixture under GHS/OSHA criteria.

GHS Label elements, including precautionary statements

None

Hazards not otherwise classified (HNOC) or not covered by GHS

None known

Section 3 Composition/Information on Ingredients

Proprietary mixture of synthetic waxes, resins, and oil soluble dyes.

No ingredients are hazardous according to OSHA criteria.

No components need to be disclosed as per 29CFR Part 1910.1200.

Section 4 First Aid Measures

Description of first aid measures

Inhalation: Exposure to fumes, vapors, or smoke of overheated molten product handled in confined areas can result in irritation of the respiratory tracts, and possible discomfort to sensitive individuals. Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Skin Contact: Wash with soap and water. Molten product - Cool affected areas with running water to remove heat. In general, do not remove adhering material - it may be necessary to cut through material surrounding a limb to prevent a tourniquet effect. Seek medical attention urgently.

Eye Contact: Exposure to fumes, vapors, or smoke of overheated product can result in irritation to eyes. Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist. If molten material contacts the eye, immediately flush with plenty of running water for at least 15 minutes, holding eyelid open. Do not remove adhering material. Seek medical attention immediately.

Ingestion: Do not induce vomiting. Seek medical attention.

Most Important Symptoms/Effects

Burns should be treated as thermal burns. The material will come off as healing occurs; therefore, immediate removal from skin is not necessary

Indication of Immediate Medical Attention and Special Treatment

Hazards: Contact with molten product may cause severe burns to skin and eyes.

Treatment: Treat symptomatically.

Section 5 Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: Water mist, foam, dry chemical or carbon dioxide

Unsuitable extinguishing media: Solid water stream may scatter and spread fire

Special hazards arising from the substance or mixture

Molten material can create slippery conditions. In case of fire hazardous decomposition products may be produced such as: Carbon dioxide, carbon monoxide and complex hydrocarbons. As with most solid organic compounds, a high dust concentration of this product may form an explosive atmosphere, subject to ignition by heat and static discharge. This is an unlikely scenario but users should be aware of the risk.

Advice for firefighters

In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.

Section 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

Environmental precautions

Should not be released into the environment. Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel spilled material into suitable containers for disposal.

Section 7 Handling and Storage

Precautions for safe handling

Use only in a well-ventilated area and avoid breathing fumes and dust (dust is unlikely). Avoid skin and eye contact, especially with the molten material. Do not eat, drink or smoke whilst using this product.

Conditions for safe storage, including any incompatibilities

Keep product closed in its original packaging until used. Keep dry; avoid temperature extremes (keep between 5 & 30°C / 41 & 86°F) and direct sunlight. Keep away from sources of ignition, oxidizing agents and other chemicals.

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 unused in melt tanks and injection machines.

Section 8 Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

The following may be released from the product in a molten state

Paraffin Wax Fume CAS # 8002-74-2 NIOSH TWA: 2 mg/m³

Exposure controls

Appropriate engineering controls: Good general ventilation should be used. If applicable, use local exhaust ventilation or other engineering controls to maintain airborne levels of dust (solid product), fume or vapor (molten product) below recommended exposure limits.

Personal protective equipment

Section 8 Exposure Controls/Personal Protection

Eye/face protection: Appropriate eye protection should be worn when handling slabs and pellets, when injecting the product and when assembling patterns. A full-face shield is recommended for operations involving the transfer of molten product, i.e. refilling press reservoirs

Skin protection: When handling product at elevated temperatures, use heat-resistant gloves. With product at ambient temperatures, use cotton gloves.

Respiratory Protection

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, a NIOSH-approved organic vapor respirator equipped with a dust/mist prefilter should be used.

Other Protective Measures

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area. Avoid breathing dust, vapor, or mist. Avoid contamination of food, beverages, or smoking materials. Wash thoroughly after handling, and before eating, drinking, or smoking. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

Appearance	Waxy dark red solid
Odor	Mild
Odor threshold	No data available
pH	No data available
Melting point	Approximately 63.3°C (146.0°F)
Boiling point	No data available
Flash point (Cleveland Open Cup)	>185°C (365°F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability	No data available
Vapor pressure	No data available
Vapor density	No data available
Specific gravity	No data available
Water solubility	Insoluble
Solubility	Soluble in common organic solvents
Coefficient: n-octanol/ water	No data available
Auto-ignition temperature	No data available
Viscosity	Solid at room temperature

Section 10 Stability and Reactivity

Reactivity	None known
Chemical Stability	Stable as supplied under recommended storage conditions
Possibility of Hazardous Reactions	None known
Conditions to Avoid	The product is organic, and will be subject to surface oxidation. Avoid holding the product in the molten state when not in use. Excessive thermal exposure will degrade the product.
Incompatible Materials	Strong oxidizing agents
Hazardous Decomposition Products	Thermal oxidative decomposition can produce carbon dioxide, carbon monoxide

Section 11 Toxicological Information

Acute toxicity	No data available
Inhalation	Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons.
Dermal	Molten product will cause thermal burns on contact
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	Molten product will cause thermal burns on contact
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
Reproductive toxicity	No data available
Specific Target Organ Toxicity	
Single Exposure:	No data available.
Repeated Exposure:	No data available.
Aspiration Hazard	No data available.

Section 12 Ecological Information

Toxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT & vPvB assessment	No data available

No specific ecological information has been determined for this product. However, the product is insoluble in water and should not pose a serious threat to the environment. Users should ensure that the product is stored, handled and disposed of in such a manner that it is not released to the environment. Spent material from the flash fire furnace or autoclave must be stored in such a manner as to prevent environmental contamination, either by solid product or rain water run-off from it.

Section 13 Disposal Considerations

Disposal

Dispose of used product, unwanted product and related packaging in strict accordance with waste disposal legislation and any local authority requirements.

Section 14 Transport Information

DOT, TDG, IMDG, & IATA: Not regulated

Section 15 Regulatory Information

US Federal Regulations

EPCRA Section 302: This material contains no extremely hazardous substances.
 SARA 311/312 Codes: No hazard categories identified
 SARA 313: No components were identified

Section 15 Regulatory Information

TSCA Inventory Status: All components of this product are listed or exempted from listing on the Toxic Substances Control Act (TSCA) inventory.

California Proposition 65

This product is not known to contain any chemicals known to the State of California to cause cancer, birth defects, or reproductive harm. For more information, visit www.P65Warnings.ca.gov.

Section 16 Other Information

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