

Section 1 Identification

1.1 Product identifiers

Product name: 12 Red Sprue

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

Identified uses: Sprue wax

1.3 Details of the supplier of the safety data sheet

Freeman Manufacturing and Supply Company
 1101 Moore Road, Avon, OH 44011
 (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 waxes, 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.

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: Molten material can create slippery conditions. 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. This is an unlikely scenario but users should be aware of the risk.
Hazardous Combustion Products: Carbon dioxide, carbon monoxide, complex hydrocarbons, irritating smoke.

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 breathing fumes. Avoid contact with skin and eyes. Wear appropriate personal protective equipment.

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

Allow molten material to cool. 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. Avoid contact with skin and eyes. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco. Do not use in areas without adequate ventilation. Avoid breathing fumes. 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 unused in melt tanks and injection machines. Stir product at all times.

7.2 Conditions for safe storage, including any incompatibilities

Store at ambient temperatures in closed containers. Keep away from ignition sources, heat, open flames, and direct sunlight. Do not heat above flash point. This material can catch fire if overheated. Do not store with incompatible materials: strong oxidizing agents.

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guideline

| Substance Name | Exposure Limit | Sources |
|----------------|-------------------------|-----------------------|
| Wax fumes | 2 mg/m ³ TWA | NIOSH REL / ACGIH TLV |

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, 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

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

Hands

Wear thermally resistant gloves and long sleeves if handling molten product.

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 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

Avoid breathing dust, vapor or mist. Wash thoroughly after handling. Remove contaminated clothing promptly and clean thoroughly before reuse. Avoid contamination of food, beverages, or smoking.

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Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
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| Physical State: | Solid |
| Color: | Red |
| Odor: | Mild |
| Odor Threshold: | No data available |
| pH: | Not applicable |
| Melting Point: | Approximately 156°F (69°C) |
| Boiling Point: | No data available |
| VOC Content: | 0 |
| Flash Point: | >365°F (185°C) |
| Evaporation Rate: | No data available |
| Flammability (solid, gas): | No data available |
| Lower Explosion Limit: | No data available |
| Upper Explosion Limit: | No data available |
| Vapor Density: | No data available |
| Specific Gravity: | 0.918 at 20°C |
| Water Solubility: | Insoluble |
| Partition Coefficient: n-octanol/water: | No data available |
| Auto-Ignition Temperature: | No data available |
| Viscosity: | Solid at room temperature |
| Explosive Properties: | Not explosive |
| Oxidizing Properties: | Not an oxidizer |

Section 10 Stability and Reactivity

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| 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: | Hazardous polymerization does not occur. |
| 10.4 Conditions to avoid: | Heat, sparks, open flame. Avoid dust formation. |
| 10.5 Incompatible materials: | Strong oxidizing agents. |
| 10.6 Hazardous decomposition products | In case of fire hazardous decomposition products may be produced: carbon monoxide, carbon dioxide, irritating smoke. |

Section 11 Toxicological Information

11.1 Information on toxicological effects

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| 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 | Classification criteria not met |
| Germ Cell Mutagenicity | Classification criteria not met |
| Carcinogenicity | 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. |
| Reproductive Toxicity | Classification criteria not met |
| Specific Target Organ Toxicity (STOT) | |
| Single Exposure | No data available |
| Repeated Exposure | No data available |
| Aspiration Hazard | Not relevant |

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Section 12 Ecological Information

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|---------------------------------------|---|
| 12.1 Toxicity | Not expected to be harmful to aquatic organisms |
| 12.2 Persistence and degradability | Expected to be inherently biodegradable |
| 12.3 Bioaccumulative potential | No data available |
| 12.4 Mobility in soil | Expected to partition to sediment and wastewater solids |
| 12.5 Results of PBT & vPvB assessment | No data available |

Section 13 Disposal Considerations

13.1 Disposal
Follow applicable Federal, State, and local regulations.

Section 14 Transport Information

14.1 DOT, TDG, IMO/IMDG, IATA/ICAO: Not regulated

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the product
Inventories: This product complies with the following inventories: Australia AICS, Canada DSL/NDSL, China IECSC, Japan ENCS, Korea KECI, New Zealand NZIOC, Philippines PICCS, USA TSCA
SARA Title III, Section 302 Emergency Planning: No chemicals in this material are subject to the reporting requirements.
SARA Title III, Section 311/312 Community Right-to-Know: None
SARA Title III, Section 313 Toxic Chemical Release Inventory: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels.
Resource Conservation and Recovery Act (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 Prop. 65: This product is not known to contain any components for which the State of California has found to cause cancer, birth defects or other reproductive harm.

Section 16 Other Information

16.1 Disclaimer

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