FREEMAN Manufacturing & Supply Company

Safety Data Sheet

Freeman Flakes Tuf Guy Green

Section 1 Chemical Product and Company Identification

1.1 Product identifiers

Product name: Freeman Flakes Tuf Guy Green

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 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.

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^3 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

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Color	Green
Odor	Mild
Odor Threshold	No data available
pH	No data available
Melting Point	>158°F (70°C)
VOC Content	0
Boiling Point	No data available
Flash Point	465°F (240°C)
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
Relative Density (g/cc)	0.9 ± 0.05
Water Solubility	Negligible
Coefficient: n-octanol/ water	No data available
Auto-Ignition Temperature	No data available
Viscosity	Solid at room temperature
Explosive Properties	None
Oxidizing Properties	None

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:	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	May include: carbon monoxide, carbon dioxide

Section 11 Toxicological Information

11.1 Information on likely routes of exposure	Eye contact, skin contact, ingestion
Acute Oral Toxicity	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
Acute Dermal Toxicity	No adverse effects anticipated from skin absorption.
Acute Inhalation Toxicity	Vapors released during thermal processing may cause respiratory irritation.
Skin Corrosion/Irritation	Classification criteria not met
Serious Eye Damage/Eye Irritation	Classification criteria not met
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
Aspiration Hazard	Not relevant
Specific Target Organ Toxicity (STOT)	
Single Exposure	Not expected
Repeated Exposure	No data available

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.

Section 14 Transport Information

14.1 DOT, TDG, IMO/IMDG, IATA/ICOA: 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: 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 Prop. 65: ⚠WARNING: This product may expose you to chemicals including o-Aminoazotoluene and alpha-Methylstyrene, which are known to the State of California to cause cancer. For more information, visit www.P65Warnings.ca.gov.

Chemical Name	CAS Number	Concentration (%)	No Significant Risk Level (NSRL)
o-Aminoazotoluene	97-56-3	<0.02 (estimated)	0.2 µg/day
alpha-Methylstyrene	98-83-9	<0.03 (estimated)	Not established

Section 16 Other Information

16.1 Disclaimer

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