Safety Data Sheet



2-AB44 Art Bronze Wax Red - Medium

Section 1 Id	entification			
Product Identifiers			HMIS	
Product Identifiers				
Product name: 2-AB44 Art Bronze Wax Red - Medium Product Identified Uses of the Substance or Mixture and Uses Advised Against				
Relevant Identified Uses of the Substance or Mixture and Uses Advised Against F Identified uses: Wax for use in the art bronze industry R Uses advised against: None known PPE				
Freeman Manufacturing and Supply Company				
1101 Moore Road, Avon, OH 44011				
	ergency Telephone N	umber		
	MTREC (800) 424-9			
Section 2 Hazard	ls Identification			
Classification of the Substance or Mixture				
Not a hazardous substance or mixture under GHS/O				
GHS Label Elements, Including Precautionary Statement	S			
None				
Hazards Not Otherwise Classified (HNOC) or Not Covered	l by GHS			
None known				
Section 3 Composition/In	formation on Ingred	ients		
		1		
Proprietary mixture of synthetic and natural waxes,		dyes.		
No ingredients are hazardous according to OSHA crit				
No components need to be disclosed as per 29CFR P	art 1910.1200.			
Ingradiant with Warkplage Functional imite				
Ingredient with workdiace Exposure Linits	CAS Number	Percent. w/w		
Ingredient with Workplace Exposure Limits Paraffin wax	CAS Number 8002-74-2	Percent, w/w 20-100		
Paraffin wax	8002-74-2			
	8002-74-2			
Paraffin wax Section 4 First	8002-74-2			
Paraffin wax Section 4 First	8002-74-2 Aid Measures	20-100	ned areas car	
Paraffin wax Section 4 First Description of first aid measures	8002-74-2 Aid Measures	20-100 oduct handled in confi		
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of	8002-74-2 Aid Measures	20-100 oduct handled in confi		
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss	8002-74-2 Aid Measures overheated molten proble discomfort to sensitive to sensit.	20-100 oduct handled in confi sitive individuals. Mov	e to fresh air.	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sensi otoms persist. oduct – Cool affected a	20-100 oduct handled in confi sitive individuals. Mov reas with running wat	e to fresh air. ter to remove	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro heat. In general, do not remove adhering material - it	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to	20-100 oduct handled in confi sitive individuals. Mov reas with running wat	e to fresh air. ter to remove	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte	8002-74-2 Aid Measures overheated molten problem ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently.	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s	re to fresh air. ter to remove urrounding a	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro- heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte Eye Contact: Exposure to fumes, vapors, or smoke o	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation	e to fresh air. ter to remove urrounding a to eyes. Any	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte Eye Contact: Exposure to fumes, vapors, or smoke o material that contacts the eye should be washed out	8002-74-2 Aid Measures overheated molten proble discomfort to sensible discomfort to sensible duct – Cool affected at may be necessary to ention urgently. f overheated product of immediately with wat	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov	e to fresh air. ter to remove urrounding a to eyes. Any ve contact	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte Eye Contact: Exposure to fumes, vapors, or smoke o material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If the	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symptomatically. Get medical attention if symptomaterial, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attention to prevent a tourniquet effect. Seek medical attention of the eye should be washed out lenses. Get medical attention if symptoms persist. If plenty of running water for at least 15 minutes, hold	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pre heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte Eye Contact: Exposure to fumes, vapors, or smoke o material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If n plenty of running water for at least 15 minutes, hold medical attention immediately.	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symptomatically. Get medical attention if symptometers Skin Contact: Wash with soap and water. Molten proheat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attention if symptoms contact: Exposure to fumes, vapors, or smoke or material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symp Skin Contact: Wash with soap and water. Molten pro heat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical atte Eye Contact: Exposure to fumes, vapors, or smoke o material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention Most Important Symptoms/Effects	8002-74-2 Aid Measures overheated molten problem ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no ention.	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate t remove adhering ma	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with terial. Seek	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symptomatically. Get medical attention if symptomaterial, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attention to prevent a tourniquet effect. Seek medical attention interval that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention Most Important Symptoms/Effects Burns should be treated as thermal burns. The material	8002-74-2 Aid Measures overheated molten problem ible discomfort to sense otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no ention.	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate t remove adhering ma	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with terial. Seek	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symptomatically. Get medical attention if symptomaterial, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attected by Contact: Exposure to fumes, vapors, or smoke or material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If a plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention Most Important Symptoms/Effects Burns should be treated as thermal burns. The material removal from skin is not necessary	8002-74-2 Aid Measures	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate t remove adhering ma	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with terial. Seek	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if sympt Skin Contact: Wash with soap and water. Molten proheat. In general, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attected Eye Contact: Exposure to fumes, vapors, or smoke o material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If a plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention immediately. Most Important Symptoms/Effects Burns should be treated as thermal burns. The mater removal from skin is not necessary Indication of Immediate Medical Attention and Special T	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sen- otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no ention. rial will come off as he reatment	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate t remove adhering ma	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with terial. Seek	
Paraffin wax Section 4 First Description of first aid measures Inhalation: Exposure to fumes, vapors, or smoke of result in irritation of the respiratory tracts, and poss Treat symptomatically. Get medical attention if symptomatically. Get medical attention if symptomaterial, do not remove adhering material - it limb to prevent a tourniquet effect. Seek medical attected by Contact: Exposure to fumes, vapors, or smoke or material that contacts the eye should be washed out lenses. Get medical attention if symptoms persist. If a plenty of running water for at least 15 minutes, hold medical attention immediately. Ingestion: Do not induce vomiting. Seek medical attention Most Important Symptoms/Effects Burns should be treated as thermal burns. The material removal from skin is not necessary	8002-74-2 Aid Measures overheated molten pro- ible discomfort to sen- otoms persist. oduct – Cool affected a t may be necessary to ention urgently. f overheated product of immediately with wat molten material conta ing eyelid open. Do no ention. rial will come off as he reatment	20-100 oduct handled in confi sitive individuals. Mov reas with running wat cut through material s can result in irritation er. If easy to do, remov cts the eye, immediate t remove adhering ma	e to fresh air. ter to remove urrounding a to eyes. Any ve contact ly flush with terial. Seek	

Safety Data Sheet



Γ

2-AB44 Art Bronze Wax Red - Medium

Section 5 Fire-Fighting Measures

	Section 5 Fire-Fighting Measures					
Extinguishi	ag Madia					
Extinguishi						
	ble extinguishing media: Water mist, foam, dry chemical, or carbon dioxide					
	itable extinguishing media: Solid water stream may scatter and spread fire					
Special Haza						
	en 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					
	and static discharge. This is an unlikely scenario but users should be aware of the risk.					
	ective Equipment & Precautions for Fire-Fighters					
	e event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and					
prot	ective suit.					
	Section 6 Accidental Release Measures					
	ecautions, Protective Equipment, and Emergency Procedures					
	personal protection see section 8.					
	ntal Precautions					
Shou	ld not be released into the environment. Do not let product enter drains.					
Methods an	d Materials for Containment and Cleanup					
Solic	Product: Sweep up the spilled material. If it is contaminated, collect in a suitable container for disposal.					
Molt	en Product: Wear appropriate personal protective equipment – boots, eye protection, and heat resistant					
	es. Attempt to contain the spill by making dams with sand or earth. A water mist can be used to cool a spill					
	ake extreme care when doing so. Allow the spill to solidify before collecting the material for disposal. Do no					
	olten product enter drainage channels.					
100 11						
	Section 7 Handling and Storage					
Safe Handlin	ng la					
	bonly in a well ventilated area and avoid breathing fumes and dust (dust is unlikely). Avoid skin and eye					
	act, especially with the molten material. Do not eat, drink, or smoke whilst using this product.					
Safe Storage						
	, product closed in its original packaging until used. Keep dry; avoid temperature extremes (keep between 5					
	°C / 41 & 86°F) and direct sunlight. Keep away from sources of ignition, oxidizing agents and other					
	nicals.					
Specific End						
-						
	d heating above 100°C (212°F) during the normal investment casting process (except dewax operations).					
Don	ot let molten product stand unused in melt tanks and injection machines.					
	Section 8 Exposure Controls/Personal Protection					
C						
	s with Workplace Control Parameters					
	following may be released from the product in a molten state					
	ffin Wax Fume CAS # 8002-74-2 NIOSH TWA: 2 mg/m ³					
	e Engineering Controls					
	l general ventilation should be used. If applicable, use local exhaust ventilation or other engineering					
	rols to maintain airborne levels of dust (solid product), fume, or vapor (molten product) below					
reco	mmended exposure limits.					



2-AB44 Art Bronze Wax Red - Medium

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 pre-filter 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 red solid			
Odor	Mild			
Odor Threshold	No data available			
рН	No data available			
Melting Point	Approximately 83.9°C (183°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	Approximately 0.94 (20°C)			
Water Solubility	Insoluble			
Solubility	Soluble in common organic solvents			
Coefficient: n-Octanol/Water	No data available			
Auto-Ignition Temperature	No data available			
Viscosity	Approximately 40 cP (160°F)			
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 Hazardous Decomposition Products

Strong oxidizing agents Thermal oxidative decomposition can produce carbon dioxide, carbon monoxide



2-AB44 Art Bronze Wax Red - Medium

Eye Contact Skin Contact Inhalation Ingestion Acute Toxicity Skin Corrosion/Irritation	Molten product will cause thermal burns on contact with the eyes. Molten product will cause thermal burns on contact with the skin. Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons. No data available. No data available.
Skin Contact Inhalation Ingestion Acute Toxicity	Molten product will cause thermal burns on contact with the skin. Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons. No data available. No data available.
Inhalation Ingestion Acute Toxicity	Wax fumes have been reported to be irritating to the respiratory tract, especially to sensitized persons. No data available. No data available.
Ingestion Acute Toxicity	especially to sensitized persons. No data available. No data available.
Acute Toxicity	No data available. No data available.
Acute Toxicity	No data available.
	No data available.
Serious Eye Damage/Irritation	No data available.
Respiratory Sensitization	No data available.
Skin Sensitization	No data available.
Germ Cell Mutagenicity	No data available.
Carcinogenicity	No data available.
Reproductive Toxicity	No data available.
Specific Target Organ Toxicity	
Single Exposure:	No data available.
Repeated Exposure:	No data available.
Aspiration Hazard	No data available.
Sec	ction 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.
and should not pose a serious threat to the endisposed of in such a manner that it is not rele	determined for this product. However, the product is insoluble in water wironment. Users should ensure that the product is stored, handled, and eased to the environment. Spent material from the flash fire furnace or to prevent environmental contamination, either by solid product or rain
Sec	tion 13 Disposal Considerations
	x
Disposal Dispose of used product, unwanted product, unwanted product, unwanted product, unwanted product, unwanted product, unwanted products and any local authority records and any local authority and any local authority records and any local authority any local authority and any local authority any local authority any lo	roduct, and related packaging in strict accordance with waste disposal quirements.
Sec	ction 14 Transport Information
ADR/RID, IMDG, IATA, DOT, TDG	Not regulated.
Sec	tion 15 Regulatory Information
US Federal Regulations EPCRA Section 302: This material cor SARA 311/312 Codes: No hazard cate SARA 313: No components were iden	





2-AB44 Art Bronze Wax Red - Medium

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

▲ WARNING: This product may expose you to chemicals including alpha-Methylstyrene, which is 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)
ſ	alpha-Methylstyrene	98-83-9	<0.001 (estimated)	Not established

Section 16 Other Information

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.

Issue Date: November 12, 2021 Revision Date: September 16, 2022