

Vitrocote™ Material Safety Data Sheet

SECTION 1: PRODUCT IDENTIFICATION: Vitrocote™ 10, Vitrocote™ 20

APPEARANCE:	Opaque powder, solid	HMIS RATINGS:	
COLOR:	White	Health:	1 Slight
ODOR:	Odorless	Flammability:	0 Minimal
MOHS HARDNESS:	5.0 – 5.5	Reactivity:	0 Minimal
CASRN:	1332-09-8 (CASRN Index Name: Pumice)		
EINECS	310-127-6 (Naturally occurring substance)		

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL DESCRIPTION: A mixture of naturally occurring inert, non-toxic, non-crystalline aluminosilicates and silicates of sodium, potassium, calcium, iron, and magnesium.

SECTION 3: HAZARDOUS COMPONENT INFORMATION

HAZARDOUS INGREDIENTS:	OSHA PEL	ACGIH TLV	NIOSH TWA	Wt. %
Quartz: CAS# 14808-60-7 (naturally occurring ingredient)				
Respirable Quartz:	0.1 mg/m ³	0.1 mg/ m ³ (TWA)	50 µg/ m ³ (TWA)	>0.1 to <1.0 %
Nuisance Dust:				
Respirable	5 mg/m ³	5 mg/m ³		
Total Dust	15 mg/m ³	10 mg/m ³		

SECTION 4: HAZARDS IDENTIFICATION

This product may contain low levels of respirable quartz (respirable crystalline silica). **Prolonged and/or massive inhalation** of airborne respirable crystalline silica dust may cause lung disease (silicosis), historically an occupational hazard for miners, quarry workers, sandblasters, foundry workers, granite cutters, etc. This product is considered a **nuisance dust** by the ACGIH and OSHA. Use NIOSH approved respirator where TLV may be exceeded.

SECTION 5: FIRST AID PROCEDURES

EYES:	Flush with water; consult a physician and/or obtain competent medical assistance as necessary.
SKIN:	No recommendation, non-toxic.
INHALATION:	Move to fresh air; consult a physician and/or obtain competent medical assistance as necessary.
INGESTION:	No recommendation, non-toxic.

SECTION 6: FIRE HAZARDS

FIRE FIGHTING PROCEDURES:

Non-flammable and non-explosive.

EXTINGUISHING MEDIA:

Non-flammable and non-explosive.

CONDITIONS TO AVOID:

Avoid breathing dust. Avoid creating dust in closed areas. Use adequate ventilation recommended by NIOSH/ OSHA for crystalline silica.

HAZARDOUS COMBUSTION PRODUCTS:

Not known to occur. Grits 600 mesh and finer may cause electrostatic discharge.

SECTION 7: ACCIDENTAL RELEASE MEASURES

If uncontaminated, recover and reuse. If contaminated, collect in suitable containers for disposal. Use appropriate method to avoid creating dust.

SECTION 8: HANDLING AND STORAGE

GENERAL MEASURES:

Local exhaust required for dust removal. Refer to OSHA 1910.24, ASTM and/or ANSI Standards. Do not exceed OSHA PEL or ACGIH TLV. Use approved respirator if dust is present. Store under cool, dry, well ventilated conditions. Keep container closed when not in use.

SECTION 9: EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL HYGIENIC PRACTICES**PERSONAL PROTECTIVE EQUIPMENT:**

Side shield safety glasses recommended. NIOSH recommends against wearing contact lenses. Appropriate respiratory protection is required when exposure to dust may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910. 134) and manufacturer's recommendations.

WORK PRACTICES AND ENGINEERING CONTROLS:

Eyewash fountains should be easily accessible.
Use process enclosures, local exhaust ventilation, or other engineering controls to control dust below recommended exposure limits.

PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE:

Eliminate dust sources.

RECOMMENDED EXPOSURE LIMITS:

OSHA PEL: Crystalline Quartz (Respirable) 0.1 mg/m³ (TWA-TLV)
 ACGIH TLV: Crystalline Quartz (Respirable) 0.1 mg/m³ (TWA-TLV)
 NIOSH TWA: Crystalline Quartz (Respirable) 0.05 mg/m³

SECTION 10: PHYSICAL AND CHEMICAL PROPERTIES

Water Solubility: Negligible	Boiling point: N/A
Specific Gravity:	Melting Point: Approx. 1600°F
Density - 2.4 gm/cm ³	Loss On Ignition (LOI): 1-3%
Bulk Density - 1.3 gm/cm ³ (varies with compaction, particle size)	Vapor Pressure: N/A

SECTION 11: STABILITY AND REACTIVITY

GENERAL STABILITY CONSIDERATIONS:

Stable under recommended handling and storage conditions.

INCOMPATIBLE MATERIALS:

None known.

HAZARDOUS DECOMPOSITION PRODUCTS:

Not anticipated under normal or recommended handling and storage conditions.

HAZARDOUS POLYMERIZATION:

Not anticipated under normal or recommended handling and storage conditions.

SECTION 12: TOXICOLOGICAL INFORMATION

CARCINOGENICITY INFORMATION:

A component of this product, respirable quartz (respirable crystalline silica), is listed as a carcinogen in IARC Vol. 68, 1997. There is no evidence to indicate the trace amounts present in this product have a carcinogenic effect. These carcinogen warnings are applicable only if the product will be used in a way that disperses

airborne particles of respirable size and worker exposure can result in prolonged and / or massive inhalation of such respirable size particles.

SECTION 13: ECOLOGICAL INFORMATION

This product is not expected to produce any adverse environmental effects.

SECTION 14: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

For waste disposal product may be buried in approved land disposal facility in accordance with federal, state and local regulations.

SECTION 15: TRANSPORTATION INFORMATION

Not regulated by DOT.

SECTION 16: REGULATORY INFORMATION

CHEMICAL INVENTORIES:

U.S. TSCA: Included on TSCA inventory as a naturally occurring substance.
European EINECS: Included on EINECS inventory.
DSL: Included on DSL inventory.

SARA TITLE III**Sections 302 and 304:**

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

Section 313:

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

CERCLA

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302. 4.

NSF

This product is registered to the NSF Registration Guidelines for Proprietary Substances and Nonfood Compounds (2002), NSF Registration No. 126901.

RCRA

This product is not a hazardous waste as listed in 40CFR261. 33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

UL

This product is non-flammable and meets the UL746A Standard for Polymeric Materials Short Term Property Evaluations and has passed the UL94 Tests for Flammability of Plastic Materials for Parts in Devices and Appliances with UL94HB and UL94VO ratings, which conclude that this product is considered "self-extinguishing".

USFDA

This product/similar products comply with 21 CFR 182 Subpart C and 21 CFR 174.5(d)(1) and meets requirements for use in polymers intended for use in food handling and packaging.

USP

This product is USP Class VI Compliant as defined in USP XXII, Part 88.

SECTION 17: OTHER INFORMATION

LIST OF ACRONYMS:

ACGIH: American Conference of Governmental Industrial Hygienists
ANSI: American National Standards Institute
ASTM: American Society for Testing and Materials
BECAM: Bovine Eye and Chicken Chorioallantoic Membrane
CASRN: Chemical Abstracts Service Registry Number
CERCLA: Comprehensive Emergency Response, Compensation and Liability Act
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL: Domestic Substances List (Canadian)
EINECS: European Inventory of Existing Commercial Chemical Substances
HMIS: Hazardous Materials Identification System
IARC: International Agency for Research on Cancer
ISO: International Organization for Standardization
N/A: Not Applicable
NIOSH: National Institute of Occupational Safety and Health
NSF: National Sanitary Foundation
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit (OSHA)
RCRA: Resource Conservation and Recovery Act
SARA: Superfund Amendment Reauthorization Act
TLV: Threshold Limit Values (registered trademark of ACGIH)
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
UL: Underwriters Laboratories
USFDA: United States Food and Drug Administration
USP: United State Pharmacopeia