



Gesswein Co. Inc.

MATERIAL SAFETY DATA SHEET

Effective: September 2011

I. PRODUCT AND COMPANY IDENTIFICATION:

- Product Name - Gesswein Finishing Stones: Moldmaker and Moldmaker Plus Stones
- Trade Name - Vitrified Silicon Carbide abrasive
- Product Use - Mold and die polishing, grinding, tool sharpening, dressing of grinding and cutting wheels. Vitrified silicon carbide abrasives break down during use. The resulting dust is classified by OSHA as inert or nuisance dust. Data provided pertains primarily to the dust produced during and after use. **IMPORTANT:** Hazards may change when this product is used in conjunction with solvents, cutting fluids or other chemicals. For more complete information, consult the material safety data sheet of chemical products used with vitrified silicon carbide abrasives.
- Chemical Family - Carbide
- Synonyms - Abrasive stone, bonded silicon carbide, mold stone, polishing stone.
- Manufacturer - Gesswein Co. Inc., 201 Hancock Ave., Bridgeport CT 06605 USA
- Telephone/Fax - 203-366-5400 / 203-366-3953
- Emergency Contact - Chemtel 203-255-3924

II. HAZARDS IDENTIFICATION:

- Emergency Overview - During or after use, the dust resulting from breakdown of vitrified silicon carbide may be inhaled or come in contact with skin or eyes.
- Exposure Limits - Particulate not otherwise classified, use TLV of 10 mg/m³ for vitrified silicon carbide products.
- Potential Health Effects
 - Eye - Dust can cause irritation, redness and eye watering.
 - Skin - No skin absorption hazard for vitrified silicon carbide products. May cause rash from mechanical irritation.
 - Ingestion - Abrasive particles may cause irritation.
 - Inhalation - Nuisance dust may cause coughing or sneezing.
- Medical Condition Aggravated By Exposure - Nuisance dust may aggravate pre-existing conditions.
- Carcinogenicity - Not a carcinogen.

III. COMPOSITION / INFORMATION ON INGREDIENTS:

- Chemical Name - Vitrified Silicon Carbide

<u>Ingredients</u>	<u>CAS#</u>	<u>WEIGHT%</u>	<u>TLV</u>	<u>Hazardous Ingredient (Yes/No)</u>
Silicon Carbide	409-21-2	60-95%	10 mg/m ³	No
Frit/clay bond	65997-18-4	5-30%	10 mg/m ³	No

May Contain One of the Following Materials

Cured Resin	9003-35-4	10-30%	10 mg/m ³	No
Petroleum Oil	64742-54-7	5-25%	10 mg/m ³	No
Wax	015-86-9	10-30%	10 mg/m ³	No

Vitrified silicon carbide abrasives are ceramic articles that may be further treated with cured resin, oil, or wax. End use of vitrified silicon carbide abrasives (grinding, polishing, etc.) may produce dust which is classified as inert or nuisance dust. OSHA sets TLV (threshold limit value) for nuisance dust at 10mg/m³ for continuous exposure.

IV. FIRST AID MEASURES:

- Eye - Flush eyes with water for 15 minutes lifting upper and lower lids occasionally. Seek medical attention if irritation or pain persists.
- Skin - Thoroughly wash affected area with soap and water and isolate from exposure. If irritation or rash persists, seek medical attention.
- Ingestion - N/A
- Inhalation - If symptoms of pulmonary involvement develop (coughing, sneezing, shortness of breath) remove from exposure. If condition persists, seek medical attention.
- Other Health Risks - Grinding may create sound and vibration levels that could affect hearing and aggravate circulatory problems in the hands. Obtain medical evaluation and use proper protection.

V. FIRE and EXPLOSION HAZARD DATA:

- Flash Point - Not applicable for untreated silicon carbide abrasives.
Oil: 400°F min. Wax: 570°F min. Resin: not available.
- Flammable Limits in Air - Not known.
- Autoignition Temperature - Not applicable for untreated silicon carbide abrasives.
Oil: N/A Wax: N/A Resin: N/A
- Unusual Fire and Explosion Hazards - None for untreated silicon carbide abrasives.
Oil: None. Wax: None. Resin: None.
- Fire Fighting Procedures - Not applicable for untreated silicon carbide abrasives.

Oil and Wax: Oil and wax are surface burning materials. If water is used, apply using spray or fog nozzle.	Resin: In fire conditions, do not inhale gases. Wear positive pressure self-contained breathing apparatus.
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- Extinguishing Media - Not applicable for untreated silicon carbide abrasives.
Oil, Wax & Resin: Use water spray or fog, foam, dry chemical or CO₂.
- Hazardous Combustion Products - Not applicable for untreated silicon carbide abrasives.
Oil, Wax & Resin: Complete combustion will produce carbon dioxide and carbon monoxide.

VI. ACCIDENTAL RELEASE MEASURES:

- Spill Procedures - Sweep or shovel vitrified silicon carbide into closable container for disposal. Use a vacuum or wet clean-up for dust.
- Waste Disposal Methods - Dispose in accordance with federal, state, provincial and local regulations.

VII. HANDLING AND STORAGE:

- Handling Precaution - If use conditions generate airborne dust, use in well-ventilated area and avoid breathing dust. Dust should be removed by washing or vacuuming. See ANSI Standard B7.1 safety requirements for the use of abrasive grinding wheels.
- Personal Hygiene: - Use good personal hygiene. Wash hands before eating, drinking or smoking. Do not shake clothing, rags or other items to remove dust.
- Shipping & Storage Precautions - Not applicable for untreated silicon carbide abrasives.
Oil, Wax and Resin: Keep away from open flames and other ignition sources.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION:

- Engineering Controls - Provide process enclosure or local ventilation needed to maintain dust below applicable exposure limits. Use good industrial housekeeping and hygiene practices.
- Personal Protective Equipment
- Eye/Face Protection - Goggles or safety glasses with side shields are recommended when vitrified silicon carbide products are used in polishing, grinding or cutting operations.
- Skin Protection - Protective gloves are recommended but not required for vitrified silicon carbide products.
- Respiratory Protection - Not normally required for vitrified silicon carbide products. Selection and use of respiratory protective equipment, if warranted, should be in accordance with OSHA General Industry Standard 29 CFR 1910.134 in the U.S.A. and with CSA Standard Z94.4-M1982 in Canada.
- Other Protective Equipment - Hearing protection may be required. See OSHA 29CFR 1910.95 for noise level statutory limits and hearing protection requirements.

IX. PHYSICAL AND CHEMICAL DATA:

- Appearance and Odor - Solid; green gray or black. Slight paraffin odor for oil and wax treated products, otherwise no odor.
- pH - Not applicable
- Density - Varies, 1.50 to 2.50
- Molecular Weight - Not applicable.
- Vapor Pressure - Not applicable.
- Vapor Density - Not applicable.
- Boiling Point - Not applicable.
- Freezing Point - Not applicable.
- Solubility in Water - Not applicable.
- Evaporation Rate - Not applicable.
- Odor Threshold - Not applicable.
- Volatile Organic Compounds - No.

X. STABILITY AND REACTIVITY:

- Stability - Stable, not reactive with water for vitrified bonded silicon carbide abrasives. Oil, wax and resin: Stable at ambient temperatures and atmospheric pressure.
- Conditions to avoid - Not applicable for untreated silicon carbide abrasives. **Oil, wax and resin: Keep away from open flames and other ignition sources.**
- Incompatibility (materials to avoid) - Not applicable for untreated silicon carbide abrasives. **Oil, wax and resin: Keep away from open flames and other ignition sources.**
- Hazardous Decomposition Products - Not applicable for untreated silicon carbide abrasives. Oil, wax and resin: Not available.
- Hazardous Polymerization - Not applicable for untreated silicon carbide abrasives. Oil, wax and resin: Will not occur.

XI. TOXICOLOGICAL INFORMATION:

- Eye Contact - Dust can cause irritation, redness and eye watering.
- Skin Contact - No skin absorption hazard for vitrified silicon carbide products. May cause rash from mechanical irritation.
- Ingestion - Abrasive particles may cause irritation.
- Inhalation - Nuisance dust may cause coughing or sneezing.
- Medical Condition Aggravated By Exposure - Nuisance dust may aggravate pre-existing conditions.

XII. ECOLOGICAL INFORMATION:

No ecological information is known.

XIII. DISPOSAL CONSIDERATION:

- Waste disposal method - Dispose in accordance with federal, state, provincial and local regulations.

XIV. TRANSPORTATION INFORMATION:

- DOT Proper Shipping Name - None for untreated silicon carbide. None for oil, wax or resin treated silicon carbide.
- DOT Hazard Class - None for untreated silicon carbide. None for oil, wax or resin treated silicon carbide.
- DOT ID Number - None for untreated silicon carbide. None for oil, wax or resin treated silicon carbide.

XV. REGULATORY INFORMATION:

- SARA TITLE III - Product does not contain toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE LIST – Not listed.
 SECTION 313 TOXIC CHEMICALS LIST – Not listed.

FEDERAL RCRA HAZARDOUS WASTE – No.

REPORTABLE QUANTITY (RQ), UNDER U.S. – None.

XVI. OTHER INFORMATION:

FEDERAL RCRA HAZARDOUS WASTE – No.
 REPORTABLE QUANTITY (RQ), UNDER U.S. – None.

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