

SECTION 1 -- PRODUCT IDENTIFICATION

IDENTITY (Trade Name): Vitrified Aluminum Oxide abrasive

SYNONYMS: Abrasive stone, bonded Alumina, dressing stick, glass stone, mold stone, polishing stone, roughout stone, or mounted point.

FAMILY/CHEMICAL NAME: Oxide, Glass

PRODUCT USE: Mold and die polishing, grinding, tool sharpening, dressing of grinding and cutting wheels. Vitrified aluminum oxide 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.

MANUFACTURER/SUPPLIER: BORIDE Engineered Abrasives
 2615 Aero Park Dr.
 Traverse City MI 49686-9101

ORIGINAL ISSUE DATE: March 4, 2015

TELEPHONE NUMBER: (800) 662-0336

24-HOUR EMERGENCY NUMBER: (231) 922-1959

SECTION 2 – HAZARDS IDENTIFICATION

PRIMARY ROUTES OF EXPOSURE: During or after use, the dust resulting from breakdown may be inhaled or come in contact with skin or eyes.

POTENTIAL HEALTH EFFECTS:

ACUTE: Eyes: Dust can cause irritation, redness and eye watering.

 Skin: No skin absorption hazard. May cause rash from mechanical irritation.

 Inhalation (Breathing): Nuisance dust may cause coughing or sneezing.

 Ingestion (Swallowing): Abrasive particles may cause irritation.

CHRONIC: Same as Acute.

MEDICAL CONDITION AGGRAVATED BY EXPOSURE: Nuisance dust may aggravate pre-existing conditions.

NFPA RATINGS: Health: 0; Flammability: 0; Reactivity: 0

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

| MATERIAL | CAS # | WEIGHT % | PEL | EC# |
|----------------|------------|----------|----------------------|-----------|
| Aluminum Oxide | 1344-28-1 | 60-95% | 15 mg/m ³ | 215-691-6 |
| Frit/clay bond | 65997-18-4 | 5-30% | 15 mg/m ³ | NA |

SECTION 4 – FIRST AID MEASURES

EYES: 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.

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 effect hearing and aggravate circulatory problems in the hands. Obtain medical evaluation and use proper protection.

SECTION 5 – FIREFIGHTING MEASURES

FLASH POINT: Non-flammable.

FLAMMABLE LIMITS IN AIR: Not Known.

AUTOIGNITION TEMPERATURE: Not applicable.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

FIRE FIGHTING PROCEDURES: Not applicable.

EXTINGUISHING MEDIA: Not applicable.

HAZARDOUS COMBUSTION PRODUCTS: None.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

SPILL PROCEDURES: Sweep or shovel vitrified aluminum oxide into closable container for disposal. Use a vacuum or wet clean-up for dust.

METHODS FOR CONTAINMENT: Containment is not necessary.

SECTION 7 – HANDLING AND STORAGE

HANDLING: If use conditions generate airborne dust, use in well-ventilated area and avoid breathing dust. Dust should be removed by washing or vacuuming.

STORAGE: No special storage conditions required.

PERSONAL HYGIENE: Use good personal hygiene. Wash hands before eating, drinking or smoking. Do not shake clothing, rags or other items to remove dust.

SECTION 8 – EXPOSURE CONTROLS, PERSONAL PROTECTION

| <u>MATERIAL</u> | <u>CAS #</u> | <u>WEIGHT %</u> | <u>PEL</u> | <u>Hazardous Ingredient (YES/NO)</u> |
|-----------------|--------------|-----------------|----------------------|--------------------------------------|
| Aluminum Oxide | 1344-28-1 | 60-95% | 15 mg/m ³ | no |
| Frit/clay bond | 65997-18-4 | 5-30% | 15 mg/m ³ | no |

PRECAUTIONS FOR SAFE USE AND HANDLING

HANDLING PRECAUTIONS: None known.

CONTROL MEASURES

EYE PROTECTION: Goggles or safety glasses with side shields are recommended when vitrified aluminum oxide products are used in polishing, grinding or cutting operations.

PROTECTIVE GLOVES: Recommended but not required for vitrified aluminum oxide products.

RESPIRATORY PROTECTION: Not normally required. 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.

ENGINEERING CONTROLS: Provide process enclosure or local ventilation needed to maintain dust below applicable exposure limits.

OTHER PROTECTIVE EQUIPMENT: Hearing protection may be required. See OSHA 29CFR 1910.95 for noise level statutory limits and hearing protection requirements.

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE, APPEARANCE, and ODOR: Solid; red, pink, brown, orange, blue, gray or white. No odor.

ODOR THRESHOLD: Not applicable.

DENSITY: Varies; 1.80 to 2.70

VAPOR DENSITY: Not applicable.

BOILING POINT: Not applicable.

VAPOR PRESSURE: Not applicable.

FREEZING POINT: Not applicable.

EVAPORATION RATE: Not applicable.

PH: Not applicable.

SOLUBILITY IN WATER: Not applicable.

MOLECULAR WEIGHT: Not applicable.

VOLATILE ORGANIC COMPOUNDS: No.

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable, not reactive with water.

INCOMPATIBILITY (material & conditions to avoid): None known.

HAZARDOUS POLYMERIZATION: Will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: None known.

CARCINOGENS: Not a carcinogen.

RTECS Number: BD1200000

INGESTION: Not hazardous.

INHALATION: Rat TC Lo: 200 m g/m 3/5H/28W (Intermittent) [Lungs, Thorax, or Respiration – Structural or functional change in trachea or bronchi; Lungs, Thorax, or Respiration - Chronic pulmonary edema Related to Chronic Data - death] (RTECS).

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY: No information available.

PERSISTENCE AND DEGRADABILITY: No information available.

MOBILITY IN SOIL: No information available.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHODS: Dispose in accordance with federal, state, provincial and local regulations.

SECTION 14 -- TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: None for untreated aluminum oxide.

DOT HAZARD CLASS: None for untreated aluminum oxide.

DOT ID NUMBER: None for untreated aluminum oxide.

IATA Shipping Name: Not regulated as dangerous goods.

SECTION 15 -- REGULATORY INFORMATION

TSCA Inventory Status: Listed

EINECS Number: 262-373-8

EC Number: 215-691-6

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: Not listed

REPORTABLE QUANTITY (RQ), UNDER U.S.: Not listed

SECTION 16 -- ADDITIONAL INFORMATION

SDS creation date: March 4, 2015

SDS revision date: March 4, 2015

User assumes all risks incident to the use of this product. To the best of our knowledge, the information contained herein is accurate. However, BORIDE Engineered Abrasives assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either expressed or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the material as supplied to the user.