

3:45 Zirconia - MSDS**Material Safety Data Sheet****SECTION 1 – PRODUCT IDENTIFICATION**

Product name: 3:45
Designation / Application
Intended use: Oxide ceramic
Producer/ Supplier; ZUBLER USA L.L.C.
130 Satellite Blvd NE
Suite E
Suwanee, GA 30024
U.S.A.
Phone number: (770) 921-2131

SECTION 2 – CHEMICAL COMPOSITION

Materials	CASE#	%Weight
ZrO2	1314-23-4	85 - 96
Y2O3	1314-36-9	4 - 6
Al2O3	1344-28-1	0 - 1
HfO2	12055-23-1	4 - 5

SECTION 3 – HAZARDS IDENTIFICATION

Hazard designation: Not hazardous according to 99/45/ECC
Hazard information to men and environment: N/A
Additional information: Do not inhale dust.

SECTION 4 – FIRST AID MEASURES

General Information: No special measures needed.
After Inhalation: Breathe fresh air. If irritation occurs or persists, consult a physician.
After Skin Contact: Rinse thoroughly with warm water and soap. If irritation occurs or persists, consult a physician.
After Eye Contact: Rinse open eye for several minutes under running water. If symptoms persist, consult a physician.
After Swallowing: Do not induce vomiting. Rinse mouth thoroughly with water if the person is conscious.
Information for physician: N/A.

SECTION 5 – FIRE-FIGHTING MEASURES

Flammability: No special fire fighting measures required.
Non suitable extinguishing agent: Not known
Further information: N/A

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Person related safety measures: Use a protective dust mask and object dust suction.
Environmental safety measures: No environmental hazard at intended use and disposal properly.
Cleaning/ absorption: Vacuum or sweep up and remove grinding dust.
Additional information: None for the product in solid form.

3:45 Zirconia - MSDS**Material Safety Data Sheet****SECTION 7 – HANDLING AND STORAGE**

- Safe handling procedures:** No special measure required for the product in solid form.
- Storage requirements:** If dust occurs, use a protective dust mask and object dust suction.
Keep at room temperature and avoid humidity.
- Incompatible materials:** Strong acids.
- Special packaging materials:** Use shock absorbing materials.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Permissible exposure:** 5 mg/cm³
- Ventilation and engineering controls:** Use a local exhaust when machining and grinding.
- Personal safety measures:** Avoid contact with skin, mouth, eyes and clothing. Use a respirator if an adequate local suction is not available. If dust occurs, wear protective goggles. Keep away from food or drinks while working.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- Physical form, color and odor:** Solid, white, and odorless
- Odor threshold:** N/A
- pH:** N/A
- Boiling point:** N/A
- Melting point/freezing point:** 2,680 °C
- Vapor pressure:** N/A
- Solubility in water:** None
- Coefficient of oil/water distribution:** N/A
- Specific gravity or relative density (water=1):** 6.08
- Vapor density:** N/A
- Volatile organic compounds (VOC's):** None
- Evaporation rate:** N/A

SECTION 10 – REACTIVITY AND STABILITY DATA

- Stability and reactivity:** Chemically stable
- Conditions avoid:** N/A
- Materials to avoid:** Strong acids
- Hazardous decomposition products:** None

SECTION 11 – TOXICOLOGICAL INFORMATION

There is no toxic reaction known at intended use. Inhaling dust can cause irritations and dust contact with skin may cause irritations.

SECTION 12 – ECOLOGICAL INFORMATION

No environmental hazard at intended use.

SECTION 13 – WASTE DISPOSAL

- Handling for disposal:** N/A
- Methods of disposal:** N/A

3:45 Zirconia - MSDS**Material Safety Data Sheet****SECTION 14 –TRANSPORTATION INFORMATION**

This Product is NOT classified as dangerous for IATA Transport.

SECTION 15 – REGULATORY INFORMATION

The usual precaution for the use of chemical substances should be taken. According to EC rules the product is not subject to declaration.

SECTION 16 – OTHER INFORMATION

The information contained within this safety data sheet is based on present product knowledge as of the preparation date of this document. This document and the information contained within this document shall not imply nor provide any warranty or guarantee. The information contained within this document is subject to change without notice. This document shall not constitute a binding legal agreement.

For more information contact the preparer listed below:

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*N/A = Not Applicable