

IN CASE OF EMERGENCY CALL: 1-800-424-9300

PREPARED BY: Peter B. Aylen, President
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MATERIAL SAFETY DATA SHEET

*Abbreviations used:*N/av. = Not available
N/ap. = Not applicable
ppm = parts per million

TLV = Threshold Limit Value

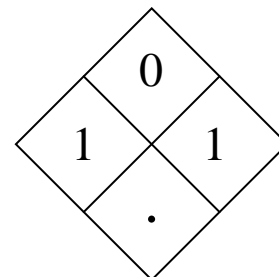
NFPA Hazard Rating:
4-Extreme, 3-High, 2-Moderate,
1-Slight, 0-None, X-Blank**WHMIS HAZARD RATING:**

N/ap.

NFPA HAZARD RATING:

Health - 1, Flammability - 0, Reactivity - 1

SECTION I - PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: ZORBPLUS
CHEMICAL NAME: Diatomaceous Earth
TRADE NAME: ZORBPLUS
CHEMICAL FAMILY: Silica
MATERIAL USE: All Purpose Absorbent

SECTION II - HAZARDOUS INGREDIENTS OF MATERIAL

For sampling silica dusts refer to NIOSH Analytical Method 7500 or OSHA method ID 142

HAZARDOUS INGREDIENTS	%	CAS NUMBER OR UN NUMBER OR NA NUMBER	OSHA PEL (ACGIH TLV)	LD50/ LC 50 SPECIES AND ROUTE
Diatomaceous Earth	Typical Analysis 65%	61790-53-2	see below	N/av.
Free Crystalline Silica or Silica, quartz	<1%	14808-60-7	N/av.	N/av.

SECTION III - PHYSICAL DATA FOR MATERIAL

PHYSICAL STATE: Solid
VAPOR PRESSURE (mm Hg): N/ap. **VAPOR DENSITY (Air = 1):** N/ap.
FREEZING POINT: N/ap. **BOILING POINT:** N/ap.
SPECIFIC GRAVITY (Water=1): 1.8 **DENSITY (20 degrees Celsius):** 35lb/cu. ft.
ODOR AND APPEARANCE: No odor, Buff to off-white powder, granules, nuggets
SOLUBILITY IN WATER: Insoluble, forms colloidal suspension
pH: 5 - 6 (10% slurry), slightly acidic in water

SECTION IV - FIRE AND EXPLOSION DATA

FLAMMABILITY (IF YES, UNDER WHICH CONDITIONS?) No
MEANS OF EXTINCTION: N/ap.
FLASHPOINT AND METHOD: N/ap.
AUTOIGNITION TEMPERATURE: N/ap.

PRODUCT IDENTIFIER: ZorbPlus

SECTION IV - FIRE AND EXPLOSION DATA (CONTINUED)

HAZARDOUS COMBUSTION PRODUCTS: N/ap.
EXPLOSION DATA (SENSITIVITY IMPACT): No
SPECIAL PROCEDURES: N/ap.
UPPER FLAMMABILITY LIMIT (% BY VOLUME): N/ap.
LOWER FLAMMABILITY LIMIT (% BY VOLUME): N/ap.
SENSITIVITY TO STATIC DISCHARGE: No

SECTION V - HEALTH HAZARDS

ROUTES OF EXPOSURE AND EFFECTS:

Inhalation: Acute (short term) exposure to dust levels exceeding the PEL may cause irritation of respiratory tract resulting in a dry cough. Chronic (long term) exposure to crystalline free silica contained by airborne diatomaceous earth and bentonite dust where levels are higher than TLV's may lead to the development of silicosis or other respiratory problems. Persistent dry cough, throat irritation and labored breathing on exertion are symptomatic. Exposure may aggravate existing upper respiratory tract diseases such as asthma, bronchitis or emphysema.

Eyes: Irritant.

Skin: Possible drying results in dermatitis.

Ingestion: No adverse effects.

Permissible Exposure Limits:	OSHA PEL	ACGIH	CAS
(for airborne, nuisance dusts)	8 hr TWA	TLV	8 hr EL
Diatomaceous earth			
Total dust	15 mg/m ³	Not detected	4 mg/m ³
Respirable dust	5 mg/m ³	Not detected	1.5 mg/m ³
Crystalline quartz (respirable)	0.1 mg/m ³	0.1 mg/m ³	0.1 mg/m ³

Note: If crystalbolite or tridymite are present, use 1/2 of the OSHA PEL or ACGIH TLV for crystalline quartz.

Diatomaceous Earth is listed and IARC Monograph 42 (1987) rates crystalline free silica as Category 2A.

EFFECTS OF CHRONIC EXPOSURE TO PRODUCT:

Exposure to quantities of crystalline silica dust, in the forms of quartz, crystalbolite or tridymite, may be present in airborne dust. If the concentration levels are in excess of the OSHA Permissible Limit (PEL-TWA 8hrs) of 0.05mg/m³ or the ACGIH Threshold Limit Value (TLV) of 0.05mg/m³, the crystalline silica is a known cause of silicosis, a progressive, sometimes fatal, lung disease. From the International Agency for Cancer Research (IARC), a 1987 review of "Silica and Some Silica" coded Monograph 42 concluded crystalline free silica was rated in Category 2AA as "probable carcinogen to humans." NTP rates "Silica, crystalline (respirable)" - "reasonably anticipated to be a carcinogen". OSHA has not classified Crystalline Free Silica as a carcinogen.

Inhalation of crystalline free silica dust below the permissible exposure limits of occupational standard setting agencies will minimize, if not eliminate, potential risk of lung cancer.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY (IF NO, UNDER WHICH CONDITIONS): Yes
INCOMPATIBILITY WITH OTHER SUBSTANCES (IF YES, WHICH ONES): Yes, Hydrofluoric acid - silica may react violently
REACTIVITY, AND UNDER WHAT CONDITIONS: N/ap.
HAZARDOUS DECOMPOSITION PRODUCTS: N/ap.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

PERSONAL PROTECTIVE EQUIPMENT:

Bureau of Mines or NIOSH approved respirators for protection against pneumoconiosis producing dusts recommended when dust is present. If the dust concentration is less than ten (10) times the Permissible Exposure Limit (PEL) use quarter or half mask respirator with replacement dust filter or single use dust respirator with valve. If dust concentration is greater than ten (10) times and less than one hundred (100) times the PEL use full faceplate respirator with replaceable dust filter; if greater than one hundred (100) and less than two hundred (200) times the PEL use power air purifying (positive pressure) respirator with replaceable filter; if greater than two

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE (CONTINUED)

PERSONAL PROTECTIVE EQUIPMENT (CONTINUED):

hundred (200) times the PEL use type C, automatic-air respirator, continuous flow type (positive pressure), with full face piece, head or helmet.

GLOVES (SPECIFY): Not needed under normal conditions of use.

RESPIRATOR (SPECIFY): Avoid breathing dust. Use respirators approved NIOSH/OSHA for silica bearing dust.

EYE (SPECIFY): Use protective goggles in high dust conditions.

FOOTWEAR (SPECIFY): As required on jobsite.

CLOTHING (SPECIFY): Wear coveralls in high dust conditions.

ENGINEERING CONTROLS (SPECIFY, E.G. VENTILATION, ENCLOSED PROCESS):

Local - control within recommended TLV/PEL, mechanical filtration to minimize dust. Refer to ACGIH publication "Industrial Ventilation" or similar publications for design of ventilation systems.

LEAK AND SPILL PROCEDURE: Vacuum clean spillage, wet sweep or wash away. Avoid creating dust.

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

HANDLING PROCEDURES: Avoid creating dust. Repair or properly dispose of broken bags. Use wet process or enclosed handling.

STORAGE REQUIREMENTS: Store in a dry place to maintain product quality. Keep containers closed and in good condition. Repair damaged containers.

SPECIAL SHIPPING INFORMATION: None

SECTION VIII - FIRST AID MEASURES

SPECIFIC MEASURES:

Inhalation: Remove victim to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Acute inhalation can cause dryness of the nasal passage and congestion of the upper respiratory tract.

Ingestion: Do not induce vomiting. Short-term exposure not considered harmful. Drink generous amounts of water to reduce bulk and drying effects.

Eye: Wash with generous quantities of water. Consult physician if irritation persists. May cause irritation or inflammation.

Skin contact: Remove contaminated clothing. Wash with soap and water until clean. Use moisture renewing lotions if dryness occurs. Not absorbed by the skin. May cause dryness.

SECTION IX - DEPARTMENT OF TRANSPORTATION

HAZARDOUS MATERIALS DESCRIPTION: None

TECHNICAL NAME: None

HAZARDOUS CLASS: None

IDENTIFICATION NUMBER: None

LABEL(S) REQUIRED: None

SECTION X - ENVIRONMENTAL DATA

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW INFORMATION:

This product contains no 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 (SARA 313 - Toxic Chemical Release Reporting).

EPA SARA 311/312 Hazard Classification: This product is considered hazardous under OSHA and SARA Title III, Section 301. Category: Chronic Health.

CERCLA Section 103: This product is not subject to CERCLA reporting requirements as it is sold. Refer to CERCLA regulations to determine if used product mixed with other chemicals or materials may be reportable. Many states have more stringent release reporting requirements. Reports spills required under federal, state and local regulations.

EPZ Toxic Substance Control Act (TSCA): All of the ingredients are listed on the TSCA Chemical Substances Inventory.

DOT Marine Pollutants: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

Disclaimer: All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances. No warranty or guarantee, expressed or implied is made by Absorbent Products Ltd., as to the information, or as to the safety, toxicity or the effect of this product.