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SECTION 4. FIRST AID MEASURES

EYE CONTACT: Check for and remove all contact lenses. Flush eyes immediately with water or physiological saline for at least 15 minutes while lifting upper and lower lids. Do not use eye ointment. Seek medical attention.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

INHALATION: If difficulty breathing, move to fresh air at once. Apply artificial respiration if breathing has stopped. Seek medical attention.

SKIN CONTACT: Wash contact area thoroughly with soap and water. Remove contaminated clothing. Launder before reuse. Seek medical attention if erythema develops.

SECTION 5. FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE: NA

EXPLOSION DATA: Not sensitive to mechanical impact or static discharge.

EXTINGUISHING MEDIA: NA

NOTE: Many dusts and aerosols may exhibit explosive characteristics if ignited by static discharge or spark. Exercise care to avoid causing dusting or misting operations such as grinding or drilling.

FIRE AND EXPLOSION HAZARDS: NA

FIRE FIGHTING PROCEDURE: NA

FLAMMABILITY: Not flammable in presence of open flame, sparks, excessive heat and static discharge.

FLAMMABLE LIMITS LEL: NA

FLAMMABLE LIMITS UEL: NA

FLASHPOINT: NA

SECTION 15. REGULATORY INFORMATION (CONT'D)

CANADA

DSL: Components included on inventory.

WHMIS HAZARD CLASS (ES): Class D, Division 2, Subdivision B: Materials cause other toxic effects, toxic material.

WHMIS TRADE SECRET REGISTRY NUMBER(S): Not Applicable

WHMIS SYMBOLS: Stylized T

EUROPEAN ECONOMIC COMMUNITY (EEC)

EINECS Inventory: Components included on inventory

EEC SYMBOL(S): Irritant

EEC RISK® PHRASES: R36/37/38 Irritating to eyes, respiratory system, and skin

R48/20 HARMFUL: Danger of serious damage to health by prolonged exposure

EEC SAFETY PHRASES:
S22 Do not breathe dust
S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39 Wear suitable protective clothing, gloves, and eye and face protection
S7/8 Keep container tightly closed and dry

SECTION 16. OTHER INFORMATION

This MSDS contains information and recommendations based upon our present knowledge and data believed to be reliable. All data shown here are subject to reasonable variation and are supplied as an accommodation to the buyer. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This MSDS applies only to the product in its “as manufactured” state, since the application to which the product is subjected may change its characteristics. The buyer is responsible for determining the safety, toxicity, and suitability of the product under the conditions of their use of the product. Buyers also have the responsibility for insuring that the MSDS is available to their employees, product users, and handlers.

NAV = Not Available  NE = Not Established  NA = Not Applicable  ND = Not Determined  EV = Under Evaluation
SECTION 6. ACCIDENTAL RELEASE MEASURES

CLEAN-UP PROCEDURE: Sweep, scoop, or vacuum the discharged material. Respiratory protection should be worn at all times and skin contact should be avoided. Observe environmental regulations.

SECTION 7. HANDLING AND STORAGE

Avoid contact with eyes, skin, and clothing. Avoid breathing dust. For industrial use only! Harmful if inhaled. Do not take internally. May cause irritation. Wear chemical splash goggles, gloves, and protective clothing. Use adequate ventilation and employ respiratory protection where dust may be generated. Wash thoroughly after handling. Store in a cool, dry place. Keep container closed when not in use. Always mix well before using.

SECTION 12. ECOLOGICAL INFORMATION

Crystalline silica (quartz) is not known to be an environmental hazard.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Sweep up excess; flush area with large quantities of water. Material could be disposed of in approved landfill according to Federal, state, and local regulations.

EUROPEAN COMMUNITY WASTE DISPOSAL KEY: Not known

UNCLEANED PACKAGINGS: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

DOT I.D. NO.: NOT REGULATED
DOT SHIPPING NAME: NA
DOT HAZARD CLASS: NOT REGULATED
DOT LABEL: NONE
OTHER: NA
NMF CLASSIFICATION: HIGH TEMPERATURE BONDING MORTAR

SECTION 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:
TSCA Status: Components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substances Inventory.
SARA TITLE III: Section 302 Extremely Hazardous Substances: None above detection limits.
Section 311/312 (40 CFR 370) Hazardous Categories: Carcinogen Irritant
There are no listed chemicals above detection limits in this compound.
CERCLA: None

STATE REGULATIONS:
California: proposition 65 substances (components) known to the State of California to cause cancer and reproductive toxicity and subject to warning and discharge requirements under the “Safe Drinking Act of 1986”. It has not been determined and cannot be ascertained that this product would not expose users to the listed chemicals at the very low levels prescribed in the regulations. Therefore, it is the user's responsibility to determine if the percent of hazardous/carcinogenic ingredients listed elsewhere in the MSDS comply with State of California regulations.
SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

See Section 2 for the components that have limit values that require monitoring at the workplace. This product contains encapsulated silica. By OSHA letter of interpretation, the silica is not considered respirable in either the cement paste form or cured cement form. However, if the cured cement is polished, ground or chipped during the processing, handling or use, the silica may be released as an airborne respirable particle. In these instances appropriate personal protection equipment and local ventilation controls must be employed.

EYE PROTECTION: Safety glasses with side shields, chemical-type goggles, or face shield. Contact lenses should not be worn.

RESPIRATORY PROTECTION: Any dust respirator for 5 times PEL or less. Any fume respirator or high efficiency particulate filter respirator for 10 times PEL or less. If TLV of any component is exceeded, use appropriate respiratory protection or ventilate in accordance with OSHA Regulation 29 CFR Part 1910.

SKIN PROTECTION: Suitable protective gloves (neoprene, butyl rubber, or FKM). Clothing should be clean, long-sleeved work clothes. Synthetic apron. Boots. Wash thoroughly before eating, smoking, applying cosmetics, etc. Thoroughly launder work clothes before reuse. Safety shower nearby.

VENTILATION: Normal ventilation for good working conditions should be used.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

% VOLATILE BY VOLUME: NA
APPEARANCE AND ODOR: White powder; odorless.
BOILING POINT: NA
COEFFICIENT OF WATER/OIL DISTRIBUTION: NA
EVAPORATION RATE: NA
MELTING POINT: NA
ODOR THRESHOLD: Not available
pH: NA
SPECIFIC GRAVITY: 8.75#/gallon
SOLUBILITY IN WATER: <15%

SECTION 11. TOXICOLOGICAL INFORMATION

ACGIH NOT AVAILABLE
IARC YES

EFFECTS OF ACUTE EXPOSURE: Refer to Section 3.
EFFECTS OF CHRONIC EXPOSURE: Refer to Section 3.

MUTAGENIC EFFECTS: If not addressed in Section 3, the data is not available.
REPRODUCTIVE TOXICITY: If not addressed in Section 3, the data is not available.

TERATOGENIC EFFECTS: If not addressed in Section 3, the data is not available.

NAME(S) OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS AND EFFECTS: If not addressed in Section 3, data is not available.

ADDITIONAL INFORMATION: Crystalline Silica (Quartz)

Silicosis - The major concern is silicosis caused by the inhalation of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute.

Cancer - Silica is listed by IARC and NTP as having sufficient evidence to be a carcinogen in humans and in experimental animals for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (group 1).

Scleroderma - There is evidence that exposure to respirable crystalline silica or silicosis is associated with incidence of scleroderma of the lungs.

Tuberculosis - Individuals with silicosis are at risk to develop tuberculosis, if exposed to persons with tuberculosis.

Nephrotoxicity - Recent studies suggest that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of kidney disorders.

LC50/LD50: There is no data available.

ADDITIONAL INFORMATION: The LD50 (oral, rat) for sodium silicate is reported to be in the range 1300-1600 mg/kg, depending on the ratio.

EYE IRRITANT: Yes
INGESTION IRRITANT: Yes
INHALATION IRRITANT: Yes
RESPIRATORY SENSITIZER: No
SKIN IRRITANT: Yes
SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

See Section 2 for the components that have limit values that require monitoring at the workplace.*

This product contains encapsulated silica. By OSHA letter of interpretation, the silica is not considered respirable in either the cement paste form or cured cement form. However, if the cured cement is polished, ground or chipped during the processing, handling or use, the silica may be released as an airborne respirable particle. In these instances appropriate personal protection equipment and local ventilation controls must be employed.

EYE PROTECTION: Safety glasses with side shields, chemical-type goggles, or face shield. Contact lenses should not be worn.

RESPIRATORY PROTECTION: Any dust respirator for 5 times PEL or less. Any fume respirator or high efficiency particulate filter respirator for 10 times PEL or less. If TLV of any component is exceeded, use appropriate respiratory protection or ventilate in accordance with OSHA Regulation 29 CFR Part 1910.

SKIN PROTECTION: Suitable protective gloves (neoprene, butyl rubber, or FKM). Clothing should be clean, long-sleeved work clothes. Synthetic apron. Boots. Wash thoroughly before eating, smoking, applying cosmetics, etc. Thoroughly launder work clothes before reuse. Safety shower nearby.

VENTILATION: Normal ventilation for good working conditions should be used.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

% VOLATILE BY VOLUME: NA
APPEARANCE AND ODOR: White powder; odorless.
BOILING POINT: NA
COEFFICIENT OF WATER/OIL DISTRIBUTION: NA
EVAPORATION RATE: NA
MELTING POINT: NA
ODOR THRESHOLD: Not available
pH: NA
SPECIFIC GRAVITY: 8.75#/gallon
SOLUBILITY IN WATER: <15%

SECTION 10. STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid dampness, keep dry until used.
HAZARDOUS DECOMPOSITION PRODUCTS: None
HAZARDOUS POLYMERIZATION: Will not occur.
INCOMPATIBILITY: (Materials to avoid) None
STABILITY: Stable under ordinary conditions of use and storage.

SECTION 11. TOXICOLOGICAL INFORMATION

ACGIH NOT AVAILABLE
IARC YES

EFFECTS OF ACUTE EXPOSURE: Refer to Section 3.
EFFECTS OF CHRONIC EXPOSURE: Refer to Section 3.

MUTAGENIC EFFECTS: If not addressed in Section 3, the data is not available.
REPRODUCTIVE TOXICITY: If not addressed in Section 3, the data is not available.
TERATOGENIC EFFECTS: If not addressed in Section 3, the data is not available.

NAME(S) OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS AND EFFECTS: If not addressed in Section 3, data is not available.

ADDITIONAL INFORMATION: Crystalline Silica (Quartz)

Silicosis - The major concern is silicosis caused by the inhalation of respirable crystalline silica dust. Silicosis can exist in several forms, chronic (or ordinary), accelerated, or acute.

Cancer - Silica is listed by IARC and NTP as having sufficient evidence to be a carcinogen in humans and in experimental animals for the carcinogenicity of quartz and cristobalite. The overall IARC evaluation was that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (group 1).

Scleroderma - There is evidence that exposure to respirable crystalline silica or silicosis is associated with incidence of scleroderma of the lungs.

Tuberculosis - Individuals with silicosis are at risk to develop tuberculosis, if exposed to persons with tuberculosis.

Nephrotoxicity - Recent studies suggest that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of kidney disorders.

LC50/LD50: There is no data available.

ADDITIONAL INFORMATION: The LD50 (oral, rat) for sodium silicate is reported to be in the range 1300-1600 mg/kg, depending on the ratio.

EYE IRRITANT: Yes
INGESTION IRRITANT: Yes
INHALATION IRRITANT: Yes
RESPIRATORY SENSITIZER: No
SKIN IRRITANT: Yes
SECTION 12. ECOLOGICAL INFORMATION

Crystalline silica (quartz) is not known to be an environmental hazard.

SECTION 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Sweep up excess; flush area with large quantities of water. Material could be disposed of in approved landfill according to Federal, state, and local regulations.

EUROPEAN COMMUNITY WASTE DISPOSAL KEY: Not known

UNCLEANED PACKAGINGS: Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

DOT I.D. NO.: NOT REGULATED
DOT SHIPPING NAME: NA
DOT HAZARD CLASS: NOT REGULATED
DOT LABEL: NONE
OTHER: NA
NMF CLASSIFICATION: HIGH TEMPERATURE BONDING MORTAR

SECTION 15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:
TSCA Status:
Components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

SARA TITLE III:
Section 302 Extremely Hazardous Substances: None above detection limits.
Section 311/312 (40 CFR 370) Hazardous Categories:
Carcinogen
Irritant

There are no listed chemicals above detection limits in this compound.
CERCLA: None

STATE REGULATIONS:
California: proposition 65 substances (components) know to the State of California to cause cancer and reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Act of 1986".
It has not been determined and cannot be ascertained that this product would not expose users to the listed chemicals at the very low levels prescribed in the regulations. Therefore, it is the user's responsibility to determine if the percent of hazardous/carcinogenic ingredients listed elsewhere in the MSDS comply with State of California regulations.

SECTION 6. ACCIDENTAL RELEASE MEASURES

CLEAN-UP PROCEDURE: Sweep, scoop, or vacuum the discharged material.
Respiratory protection should be worn at all times and skin contact should be avoided. Observe environmental regulations.

SECTION 7. HANDLING AND STORAGE

Avoid contact with eyes, skin, and clothing.
Avoid breathing dust.
For industrial use only!
Harmful if inhaled.
Do not take internally.
May cause irritation.

Wear chemical splash goggles, gloves, and protective clothing.
Use adequate ventilation and employ respiratory protection where dust may be generated.
Wash thoroughly after handling.
Store in a cool, dry place.
Keep container closed when not in use.
Always mix well before using.
SECTION 4. FIRST AID MEASURES

EYE CONTACT: Check for and remove all contact lenses. Flush eyes immediately with water or physiological saline for at least 15 minutes while lifting upper and lower lids. Do not use eye ointment. Seek medical attention.

INGESTION: If swallowed, do not induce vomiting. Give large quantities of water. Seek medical attention immediately. Never give anything by mouth to an unconscious person.

INHALATION: If difficulty breathing, move to fresh air at once. Apply artificial respiration if breathing has stopped. Seek medical attention.

SKIN CONTACT: Wash contact area thoroughly with soap and water. Remove contaminated clothing. Launder before reuse. Seek medical attention if erythema develops.

SECTION 5. FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE: NA

EXPLOSION DATA - Not sensitive to mechanical impact or static discharge.

EXTINGUISHING MEDIA: NA

NOTE: Many dusts and aerosols may exhibit explosive characteristics if ignited by static discharge or spark. Exercise care to avoid causing dusting or misting operations such as grinding or drilling.

FIRE AND-explosion HAZARDS: NA

FIRE FIGHTING PROCEDURES: NA

FLAMMABILITY - Not flammable in presence of open flame, sparks, excessive heat and static discharge.

FLAMMABLE LIMITS LEL: NA

FLAMMABLE LIMITS UEL: NA

FLASHPOINT: NA

SECTION 15. REGULATORY INFORMATION (CONT'D)

CANADA
DSL: Components included on inventory.

WHMIS HAZARD CLASS (ES):
Class D, Division 2, Subdivision B: Materials cause other toxic effects, toxic material.

WHMIS TRADE SECRET REGISTRY NUMBER(S): Not Applicable

WHMIS SYMBOLS: Stylized T

EUROPEAN ECONOMIC COMMUNITY (EEC)
EINECS Inventory: Components included on inventory

EEC SYMBOL(S): Irritant

EEC SAFETY PHRASES:
S22 Do not breathe dust
S24/25 Avoid contact with skin and eyes
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S36/37/39 Wear suitable protective clothing, gloves, and eye and face protection
S7/8 Keep container tightly closed and dry

SECTION 16. OTHER INFORMATION

This MSDS contains information and recommendations based upon our present knowledge and data believed to be reliable. All data shown here are subject to reasonable variation and are supplied as an accommodation to the buyer. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This MSDS applies only to the product in its “as manufactured” state, since the application to which the product is subjected may change its characteristics. The buyer is responsible for determining the safety, toxicity, and suitability of the product under the conditions of their use of the product. Buyers also have the responsibility for insuring that the MSDS is available to their employees, product users, and handlers.

NAV = Not Available  NE = Not Established  NA = Not Applicable  ND = Not Determined  EV = Under Evaluation
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: OMEGABOND® 300 Air Set Cement
SUPPLIER: OMEGA Engineering, Inc.
ADDRESS: PO Box 4047
Stamford, CT 06907
TELEPHONE: (203) 359-1660
ITEM NUMBER: OB-300
ITEM DESCRIPTION: OMEGABOND® 300 Adhesive Cement Powder
PRODUCT DESCRIPTION: High Temperature Bonding Mortar
CHEMICAL FAMILY: Sodium Silicate Cement; aNa₂O·bSiO₂
REVISION DATE: 01/19/12
PRODUCT USE: High temperature bonding/adhesive compounds

SECTION 2. COMPOSITION AND DATA ON COMPONENTS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>CAS #</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>% WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>SODIUM SILICATE</td>
<td>1344-09-8</td>
<td>NE</td>
<td>NE</td>
<td>&lt;40%</td>
</tr>
<tr>
<td>SILICA, CRYSTALLINE</td>
<td>14808-60-7</td>
<td>0.025 MG/M³ TWA</td>
<td>0.1 MG/M³ STEL</td>
<td>&lt;90%</td>
</tr>
</tbody>
</table>

NOTES: Exposure values shown for guidance only. Please follow applicable regulations.

SECTION 3. HAZARDS IDENTIFICATION

HMIS rating
- Health: 1
- Flammability: 0
- Reactivity: 0
- Personal protection: A

THRESHOLD LIMIT VALUE: SiO₂ - 0.025 mg/m³

EFFECTS OF OVEREXPOSURE: Since this product is a mixture, there is no exposure limit established for it. Hazardous components and their associated permissible exposure limits are listed in the section titled "Composition and Data on Components". Specific health hazards from the various ingredients include:
- SILICOSIS: Repeated inhalation of respirable free silica dust may cause delayed lung injury. May cause skin irritation or burns to eyes, respiratory tract, and stomach
- INHALATION: Sneezing, burning, or itching in nose and throat
- EYE: Pain, redness, and tearing
- SKIN: Itching or burning
- INGESTION: Burning of mouth, throat, and stomach