

# Material Safety Data Sheet

## 1. MATERIAL & COMPANY IDENTIFICATION

**Product Name** : SmartBond AN

**Manufacturer** : S3 Technologies Sdn Bhd

**Address** : 31-2<sup>nd</sup> Floor Jalan Sri Hartamas 7, Taman Sri Hartamas, 50480, Kuala Lumpur Malaysia

**Contact** : Tel: (60)3 6201 0161 Fax: (60)3 6206 2681

## 2. HAZARDS IDENTIFICATION

### GHS Classification

Skin corrosion/irritation : Category 2

Serious eye damage/eye irritation : Category 1

Specific target organ toxicity-  
single exposure : Category 3 (Respiratory System)

### GHS Label Elements



Hazard Pictograms :

Signal Word : Danger

Hazard Statement : H315 Causes skin irritation.  
: H318 Causes serious eye irritation.

## Precautionary Statements

: H335 May cause respiratory irritation.

### : **Prevention:**

P261 Avoid breathing dust/fume/ gas/ mist/ vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

### : **Response:**

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P301+P340+ P312 IF INHALED: Removed victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTRE or doctor/ physician if you feel unwell.

P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE or doctor/ physician.

P332+P313 If skin irritation occurs: Get medical advice/ attention.

### : **Storage:**

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

### : **Disposal:**

P501 Dispose of contents/ container in accordance with national regulations.

## **Other hazards which do not result in classification.**

None Known

### **3. COMPOSITION / INFORMATION ON INGREDIENTS**

**OPC** : Grey Portland Cement Tricalcium silicate (3CaO.SiO<sub>2</sub>) and dicalcium silicate (2CaO.SiO<sub>2</sub>) are Portland cement's constituent, along with varying amount of alumina, tricalcium aluminate and iron oxide as tetracalcium aluminoferrate. Small amounts of magnesia, sodium, potassium, and sulfur are also present. Chromium may be present in the finish cement since kiln's refractory lining and steel balls used in the finish-milling operations are possible sources.

**CAS Reg. No.** : 65997-15-1  
**OSHA PEL** : 10 mg/m<sup>3</sup> TDust  
**ACGIH TLV** : 10 mg/m<sup>3</sup> TDust

**Silica Sand** : Silica oxide (SiO<sub>2</sub>) is essential constituent in silica sand.

**CAS Reg. No.** : 14808-60-7  
**OSHA PEL** : 10 mg/m<sup>3</sup>  
**ACGIH TLV** : 0.1 mg/m<sup>3</sup> crystalline silica  
**Non-Metallic Aggregate** : Emery

**CAS Reg. No.** : Not applicable

**Chemical additives** : Proprietary additive  
**CAS Reg. No.** : Proprietary mixture (Not Available)

### **4. FIRST AID MEASURES**

**General Advice** : Move out of dangerous area.  
: Consult a physician.  
: Show this safety data sheet to the doctor in attendance.

**If Inhaled** : Move to fresh air.  
: Consult a physician after significant exposure.

**In case of skin contact** : Remove contaminated shoes and clothing immediately.

	<p>: Rinse affected areas with large amounts of water followed by washing the area with soap and water.</p> <p>: If irritation persists, seek medical assistance.</p>
In case of eye contact	<p>: Immediately flush eyes include under eye lids with copious amounts of water until victim is transported to an emergency medical facility.</p> <p>: Remove contact lenses.</p> <p>: Keep eye wide open while rinsing.</p> <p><b>Contact the physician immediately! This material is abrasive and can cause corneal edema!</b></p>
If swallowed	<p>: Clean mouth with water and drink afterwards plenty of water.</p> <p>: Do not give milk or alcoholic beverages.</p> <p>: Never give anything by mouth to an unconscious person.</p> <p>: Obtain medical attention.</p>
Most important symptoms and effects, both acute and delayed	<p>: Irritant effects</p> <p>Cough</p> <p>Respiratory disorder</p> <p>Excessive lachrymation</p> <p>Dermatitis</p> <p>See section 11 for more detailed information on health effects and symptoms.</p> <p>Causes skin irritation.</p> <p>Causes serious eye damage.</p> <p>May cause respiratory irritation.</p>
Notes to physician	<p>: Treat symptomatically.</p>

## 5. FIRE-FIGHTING MEASURE

Suitable extinguishing media	: Use extinguishing media like water spray, carbon dioxide, chemical foams type, applied appropriate for the surrounding fire.
Specific Hazards	: Non-Combustible material
Specific extinguishing method	: Standard procedure for chemical fires.
Special protective equipment for firefighters	: In the event of fire, wear self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures	: Wear protective equipment to prevent skin and eye contact. : Provide adequate ventilation. : Notify safety personnel of large leaks.
Environmental precautions	: Do not allow material to enter drain or waterways.
Methods and materials for containment and cleaning	: Sweep, vacuum or shovel spilled material whilst trying to minimize dust generation. : Dispose according to local authority guidelines.

## 7. HANDLING AND STORAGE

Advice on handling	: Wear protective eyeglass or chemical safety goggles, per OSHA eye and face protection regulations. : Wear other protective clothing such as gloves, boots, and aprons to prevent skin contact.
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	: Wear a NIOSH approved respirator for prolonged exposure or exposure above the TLV.
	: Never eat, drink and smoke in the work area.
	: Launder soiled clothing before wearing.
Suitable extinguishing media	: Use extinguishing media like water spray carbon
Conditions for safe storage	: Store in a cool, dry, and well-ventilated area in the original packaging.
	: Prevent packaging from physical damage.
	: Observe label precautions.
	: Store in accordance with local regulations.

## **8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Engineering Controls	: Provide general and local ventilation systems to maintain airborne concentrations below the OSHA PELs and ACGIH TLV. Local exhaust ventilation is preferred since it prevents contaminant dispersion into the work and area by controlling it at its source.
Personal Protection	: When handling or mixing the dry product, avoid inhaling dust.
	: Wear dust mask, safety glasses, chemical resistant apron, and impervious gloves.
	: Precaution should be taken to avoid skin or eye contact or ingesting the product.
	: Always wash hand before eating, drinking or using the toilet.
	: Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	: Grey Powder
<b>Odor</b>	: Odorless
<b>Odor Threshold</b>	: No data available
<b>pH</b>	: 12
<b>Melting Point/ Range/ Freezing Point</b>	: No data available
<b>Boiling Point/ Boiling Range</b>	: No data available
<b>Flash Point</b>	: Not applicable
<b>Evaporation Rate</b>	: No data available
<b>Flammability</b>	: No data available
<b>Upper explosion limit</b>	: No data available
<b>Lower explosion limit</b>	: No data available
<b>Vapour pressure</b>	: No data available
<b>Relative vapour density</b>	: No data available
<b>Solubility</b>	: Insoluble but undergo hydration
<b>Partition Coefficient n-octanol/water</b>	: No data available
<b>Auto-ignition temperature</b>	: No data available
<b>Decomposition temperature</b>	: No data available
<b>Viscosity</b>	: Not applicable
<b>Freezing Point</b>	: Not applicable
<b>Flammability</b>	: Not applicable

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	: No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	: Stable at normal temperatures when kept dry. When wet, sets to a hard lump with evolution of small amounts of heat.
<b>Possibility of hazardous reactions</b>	: No hazards to be specially mentioned.
<b>Conditions to avoid</b>	: No data available
<b>Incompatible materials</b>	: No data available
<b>Hazardous decomposition products</b>	: Calcium hydroxide forms when water is added. Containing Portland cement, it is an alkaline, abrasive, and hygroscopic material.

## **11. TOXICOLOGICAL INFORMATION**

### **Ingestion**

: Ingestion of the powder may cause burns in esophagus and stomach.

### **Inhalation**

: Chronic bronchitis may result from long term exposure. There are reports of x-ray changes without symptoms in cement workers exposed to Portland cement.

### **Eye Contact**

: May cause corneal edema.

### **Skin Contact**

: Dry cement will not cause alkaline burns. Some individuals appear to tolerate brief skin contact with wet cement, but others develop extensive skin burns. Repeated or prolonged skin exposure can cause dermatitis, including skin dryness, fissures, eczematous rashes, and dystrophy of the nails. Extensive burns with dermal necrosis can occur. Allergic dermatitis may result from the presence of heavy metals such as chromium in the mixture.

## **12. ECOLOGICAL INFORMATION**

### **Eco-toxicity**

: No data available

### **Persistence and degradability**

: No data available

### **Bioaccumulative potential**

: No data available

### **Mobility in soil**

: No data available

### **Other adverse effects**

#### **Product:**

This product is not biodegradable. Avoid contaminating waterways.

### **13. DISPOSAL CONSIDERATIONS**

#### **Disposal methods**

#### **Waste from residues**

: Do not contaminate ponds, waterways, or ditches with chemical or used containers.

: Product should be disposed in accordance with local regulations and legal requirements.

#### **Contaminated packaging**

: Empty remaining contents

: Dispose of as unused product.

: Do not re-use empty containers.

### **14. TRANSPORT INFORMATION**

No special packaging requirement. Not classified as dangerous goods under the United Nations Transport Recommendations.

### **15. REGULATORY INFORMATION**

Not classified as dangerous under current regulation.

### **16. OTHER INFORMATION**

The information contained in this MSDS is provided for use in assessing the hazardous nature of material. Information was prepared carefully, using current references available to us. Information provided is to be the best of our knowledge and belief, accurate and reliable as of the date indicated. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself/ herself as to the suitability and completeness of information provided here for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information.