OXCON SYSTEMS LLC ACCELERATOR SDS

Section 1 – Product Identification

1.1 Product Identifier

Product name: OXCON Systems Accelerator

1.2 Intended Uses of the Product

OXCON Systems Accelerator is a rapid-setting calcium sulfoaluminate (CSA) cement product used as a binding ingredient in concrete mixes which are used in construction.

1.3 Responsible Party/Company

OXCON SYSTEMS
7700 N Hayes Dr,
Valley Center,KS 67147

1.4 Further information obtainable from: www.oxconsytems.com
Contact phone number: (316) 832-0063

Section 2 – Hazards Identification

Danger! Overexposure to OXCON Systems Accelerator mixed with water can cause skin or eye damage in the form of chemical (caustic) burns, including third-degree burns. The same type of injury can occur if wet or moist skin has prolonged exposure to dry OXCON Systems Accelerator.

OSHA/HCS Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

2.1 Classification of the Substance or Mixture

GHS-US Classification:

Acute toxicity – Category 4 (Oral)
Skin corrosion/irritation – Category 1
Skin sensitization – Category 1
Serious eye damage/eye irritation – Category 1
STOT-SE – Respiratory irritation – Category 3
Carcinogenicity/inhalation – Category 1A
STOT-RE – Lung damage – Category 1

2.2 Label Elements

Hazard pictograms (GHS-US):

Signal Word (GHS-US): Danger

Hazard Statements (GHS-US):

H302: Harmful if swallowed.
H314: Causes severe skin burns and eye irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.
H350: May cause cancer.
H372: Causes damage to the lungs through prolonged or repeated exposure.

Precautionary Statements (GHS-US):

P301+330, P331: IF SWALLOWED: Rinse mouth. Do not induce vomiting.
P303+361, P353, 363: IF ON SKIN: Take off immediately all contaminated clothing. Wash with plenty of water. Wash contaminated clothing before reuse.
P304+340, P310: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or physician.
P305+351+338, 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 Center or physician.
P308+313, P314: IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.
P332+313, P362: IF SKIN irritation occurs: Get medical immediate attention. Take off contaminated clothing.
P333+313, P321: If Skin irritation or rash occurs: get immediate medical attention.
P363: Wash contaminated clothing before reuse.

P403+233: Store in a well-ventilated area with container tightly closed.
P401: If stored in bulk, keep area secure.
P401: Material stockpiled in bulk or in silage may present an engulfment hazard. Personnel should not enter bulk storage areas unless they have been trained in the hazards of entering and working in such areas.
405: Store locked up.

P501: Dispose of contents and empty containers in accordance with Federal, state, and local environmental regulations (see Section 13).

2.3 Other hazards

OXCON Systems Accelerator mixed with water can cause skin or eye damage in the form of chemical (caustic) burns, including third-degree burns. The same type of injury can occur if wet or moist skin has prolonged exposure to dry OXCON Systems Acceleratorand water mixture has a pH > 12.

2.4 Unknown Acute Toxicity

No data available.

Section 3 – Composition/Information on Ingredients

3.1 Substance

Not applicable.

3.2 Mixture

OXCON Systems Accelerator is a mixture of materials consisting of calcium compounds, aluminum compounds, crystalline silica (quartz), iron III oxide, and other additives.

Ingredient/component	CAS No.	Concentration percent wt.
Portland Cement (containing)	(CAS # 65997-15-1)	0-10
- Tri Calcium Silicate, 3CaO.SiO2	(CAS #12168-85-3)	5-10
- Di Calcium Silicate, 2CaO.SiO2	(CAS #10034-77-2)	10-30
- Tri Calcium Aluminate, 3CaO.Al2O3	(CAS #12042-78-3)	2-8
- Calcium Aluminoferrite, a solid solution	(CAS #12068-35-8)	5-10
Gypsum CaSO4-2H2O	(CAS #13397-24-5)	0-1.0
Crystalline Silica	(CAS #14808-60-7)	0-0.10
Anhydrite CaSO4		20-30
Calcium Sulfoaluminate		40-50

Composition comments

OXCON Systems Accelerator is made from materials mined from the earth and processed using energy provided by the burning of fuels. OXCON Systems Accelerator is a rapid hardening concrete product. Trace amounts of naturally occurring; potentially harmful chemicals might be detected during chemical analysis. Trace constituents may include, but not necessarily limited to, magnesium, potassium, and sodium oxides.

OXCON Systems Accelerator is not listed as a carcinogen by NTP, OSHA, ACGIH or IARC. However it may contain trace amounts (<0.1%) of substances listed as a carcinogen by NTP, OSHA, ACGIH and/or IARC: chromium VI compounds (hexavalent chromium), nickel or lead.

SECTION 4 – First Aid Measures

4.1 Description of First Aid Measures

Eye contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention immediately. Call a poison center or physician. Chemical burns must be treated promptly by a physician.

Skin contact: Take off immediately all contaminated clothing and rinse skin with plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs, get medical attention.

Inhalation: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. Immediately call a poison control center or a physician.

Ingestion: Do not induce vomiting. If subject is conscious, rinse the mouth with water to remove any material and drink plenty of water to dilute any swallowed material. Do not give drink or attempt to force water to an unconscious person. Contact a poison center or physician.

4.2 Most Important Symptoms and Effects, Acute and Delayed

Eye contact: Causes serious eye damage and/or eye irritation and may scratch eye surface due to particle abrasion. May cause chemical burns resulting in corneal damage.

Skin contact: Causes severe skin burns. Symptoms may include redness, pain, blisters. Do not allow product to harden around any body part or allow continuous, prolonged contact with skin. May cause sensitization by skin contact.

Inhalation: May irritate nose and throat if dust is inhaled. Prolonged or repeated inhalation of respirable dust may lead to respiratory tract or lung damage.

Ingestion: May cause irritation and burns of mouth, throat, stomach and digestive tract if swallowed. May cause nausea or vomiting.

4.3 Recommendations for Immediate Medical Care or Special Treatment

Seek immediate medical attention for inhalation of large quantities of dust or exposure of wet material over large areas of skin. Seek immediate medical attention if material comes into contact with eyes and cannot be immediately removed.

SECTION 5 – Fire-Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Use media appropriate for surrounding fire.
Unsuitable extinguishing media: Do not use water jet or water-based fire extinguishers.

5.2 Special Hazards Arising from the Substance or Mixture

Fire hazard: Product does not burn however its packaging may.

5.3 Advice for Fire Fighters

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Keep upwind of fire. Wear full firefighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

Hazardous decomposition products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides and metal oxide/oxides.

SECTION 6 – Accidental Release Measures

6.1 Personal Precautions, Protective Equipment, and Emergency Procedures

General measures: Avoid creating dust. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Avoid contact with skin and eyes.

6.2 Environmental Precautions Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has entered the environment, including waterways, soil or air. Materials can enter waterways through drainage systems.

6.3 Methods and Material for Containment and Cleaning Up

For containment: Barricade material to prevent additional spillage.
Cleanup methods: Scoop or vacuum up spilled material while avoiding dust creation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Scoop up wet material and place in approved container. Allow wet material to harden before disposal.

6.4 Reference to Other Sections See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7 – Handling and Storage

7.1 Precautions for Safe Handling

Precautions: Use appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in anyprocess in which this product is used. Avoid the use of contact lenses while handling this product. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Do not eat, drink, smoke, or chew gum or tobacco while using this product. Use only with adequate ventilation. Ensure the use of good housekeeping procedures to prevent the accumulation of dust. Wear appropriate respiratory protection when ventilation is inadequate (see Section 8 – Exposure Controls/Personal Protection).

Hygiene measures: Do not eat, drink, smoke, or chew gum or tobacco in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for Safe Storage

Storage conditions: Keep out of the reach of children. Store as dry cement. Avoid any dust buildup by frequent cleaning and suitable construction of the storage area. Do not store in an area equipped with emergency water sprinklers. Clean up spilled material promptly. Keep in the original container or an approved alternative made from a compatible material and keep the container tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Conditions to avoid: Water/moisture exposure will cause material to generate heat. Keep away from fluoride compounds, strong acids and oxidizers. Cement products dissolve in hydrofluoric acid, producing corrosive silicon tetrafluoride gas.

7.3 Specific End Uses OXCON Systems Accelerator is rapid-setting calcium sulfoaluminate (CSA) cement product used as a binding ingredient in concrete mixes which are used in construction.

SECTION 8 – Exposure Controls/Personal Protection

8.1 Control Parameters

Exposure limits for individual components:

Concentration percent wt.	OSHA PEL (mg/m^3)	ACGIH TLV (mg/m^3)	NIOSH REL(mg/m^3)
Calcium oxide (quicklime)	5	2	2
Aluminum oxide, as alumina	15 (T); 5	10 (containing no asbestos and <1% crystalline silica)	Not established
Aluminum sulfate	2	10 (inhalable particles)	2 (IDLH)
Crystalline silica (as quartz)	0.05 (I)	0.025 (I)	0.05 (I)
Iron III oxide	15 (T); 5 (R)	5 (R)	Not established
Nuisance dust (PNOC)	15 (T); 5 (R)	10 (T); 3 (R)	Not established
T = total dust, R = respirable fraction, I = inhalable aerosol.			

8.2 Exposure Controls

Engineering controls: Use product outdoors and in well-ventilated areas; otherwise employ natural or mechanical ventilation or other engineering controls to maintain exposure within applicable exposure limits.

Personal protective equipment: Protective clothing, gloves, eye protection, insufficient ventilation wear respiratory protection.

Skin and body: Wear long sleeved shirts and trousers while using this product. Wear water-proof boots. If working in dusty conditions, impervious over garments are recommended.

Hands: Protective gloves with wrist/arm cuffs should be worn to avoid direct contact with skin.

Face and eyes: Safety glasses with side shields or protective goggles should be worn while using this product. For extremely dusty conditions, non-vented goggles or goggles with indirect venting are recommended. Avoid contact lens wear when using this product.

Respiratory:	The use of a NIOSH approved dust respirator or filtering facepiece is recommended in poorly ventilated areas or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2).
Personal hygiene:	Clean water should always be readily available for skin and (emergency) eye washing. Periodically wash areas contacted by OXCON Systems Accelerator with a pH neutral soap and clean, uncontaminated water. If clothing becomes saturated with OXCON Systems Accelerator, garments should be removed and replaced with clean, dry clothing.
Environmental controls:	Emissions from ventilation or work process equipment should be monitored to verify compliance with the requirements of environmental protection legislation. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Other information:	Do not eat, drink, or smoke while using this product; avoid hand-to-mouth contact.

SECTION 9 – Physical and Chemical Properties

Physical state:	Solid
Appearance:	Powder
Color:	Grey
Odor:	Odorless
Odor threshold:	No data available
pH:	12 - 13 (Highly alkaline when wet)
Relative evaporation rate (n-butyl acetate=1):	No data available
Melting point:	>1,000° C
Freezing point:	No data available
Boiling point:	>1,000° C
Flash point:	Not combustible
Auto-ignition temperature:	Not applicable
Decomposition temperature:	Not determined
Flammability limits in air:	Not flammable
Vapor pressure:	Not applicable
Relative vapor density at 20 °C:	Not applicable
Relative density:	3.15 (Water = 1)
Solubility:	Slight. (Water: 0.1 - 1 %)
Log Pow:	No data available
Log Kow:	No data available
Viscosity, kinematic:	No data available
Viscosity, dynamic:	No data available
Explosive properties:	No data available
Oxidizing properties:	No data available
Explosive limits:	No data available

9.2 Other Information	No other information available.

SECTION 10 – Stability and Reactivity

10.1 Reactivity	This product reacts with water to form hardened cementitious compounds, releasing heat and producing a strong alkali solution.
10.2 Chemical Stability	Product is stable under proper storage conditions. Keep dry while in storage.
10.3 Possibility of Hazardous Reactions	No dangerous reactions are known under conditions of normal use. Do not mix with other chemical products.
10.4 Conditions to Avoid	This product is incompatible with the following materials: oxidizing materials, acids, aluminum and ammonium salt. OXCON Systems Accelerator is highly alkaline and will react with acids to produce a violent, heat-generating reactions. Toxic gases or vapors may be given off depending on the acid involved. Reacts with acids, aluminum metals and ammonium salts.
10.5 Incompatible Materials	Aluminum powder and other alkali and alkaline earth elements will react in wet grout or concrete, liberating hydrogen gas. Limestone ignites on contact with fluorine and is incompatible with acids, alum, ammonium salts, and magnesium. Silica reacts violently with powerful oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride, and oxygen difluoride yielding possible fire and/or explosions. Silicates dissolve readily in hydrofluoric acid producing a corrosive gas — silicon tetrafluoride.
10.6 Hazardous Decomposition Products	None known

SECTION 11 – Toxicological Information

11.1 Information on toxicological effects

OXCON Systems Accelerator is a mixture of materials consisting of calcium compounds, aluminum compounds, crystalline silica (quartz), iron III oxide, and other additives.

Acute toxicity:	Not classified.
LD50/LC50 data:	Not classified.
Skin corrosion/irritation:	Causes irritation or chemical burns if exposed to moisture on skin.
Critical eye damage/irritation:	Causes serious eye injury due to chemical burns or mechanical irritation.
Respiratory or skin sensitization:	Not reported/no data available.
Germ cell mutagenicity:	Not reported/no data available.
Teratogenicity:	Not reported/no data available.
Carcinogenicity:	Material contains trace amounts of crystalline silica, which may cause lung cancer through repeated or prolonged exposure to dust.
Specific target organ toxicity (Single exposure):	May cause respiratory irritation.
Specific target organ toxicity (Repeated exposure):	May cause damage to lungs through repeated or prolonged exposure.
Reproductive toxicity:	Not reported/no data available.
Aspiration respiratory hazard:	Not reported/no data available.

Symptoms: Eye contact: Redness and itching. Extended contact may lead to corneal abrasion/ulceration.

Symptoms: Skin contact: Redness and itching. Extended contact may lead to chemical burns.

Symptoms: Inhalation: Coughing, sneezing, mucous discharge and dyspnea. Extended contact may lead to chemical burns.

Symptoms: Ingestion: Irritation and chemical burns of mouth and throat.

Other toxicological information: No additional data available.

Component	Toxicity	Carc: IARC	Carc: NTP	Carc: OSHA
Calcium oxide (quicklime)	Oral LD50 >2000 mg/kg (female Rat)	Not listed	Not listed	Not listed
Aluminum oxide, as alumina	Oral LD50 > 5000 mg/kg (Rat) LD50 inhalation > 2.3 mg/l 4 h	Not listed	Not listed	Not listed
Aluminum sulfate	LD50 Oral Rat > 2,000 mg/kg Inhalation: No data available LD50 Dermal Rabbit > 5,000 mg/kg Inhalation: No data available	Not listed	Not listed	Not listed
Crystalline silica (as quartz)	Oral LD50 Rat >22,500 mg/kg LC50 Carp >10,000 mg/L (72 hr.)	Group 1	Known	Not listed
Iron III oxide	Oral LD50 > 10000 mg/kg (Rat)	Not listed	Not listed	Not listed
Nuisance dust (PNOC)	Not applicable	Not listed	Not listed	Not listed

SECTION 12 – Ecological Information

12.1 General ecotoxicity Not classified.

12.2 Persistence and Biodegradability No data available.

12.3 Bioaccumulation potential No data available.

12.4 Mobility in soil to groundwater No data available.

12.5 Other adverse effects Avoid release to the environment. Prevent material from entering sewers, drains, ditches or waterways.

SECTION 13 – Disposal Considerations

13.1 Waste treatment methods

Waste disposal recommendations: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Untreated waste should not be released to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe manner. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues.

Additional information: Avoid creating or breathing dust during disposal. Avoid contact with skin and eyes.

Ecology – waste materials: Avoid release to the environment. Prevent material from entering sewers, drains, ditches or waterways

SECTION 14 – Transport Information

UN number Not regulated.

Proper UN shipping name: Not applicable.

Transport hazard class: Not applicable.

Packing group number: Not applicable.

Environmental hazard/IMDG code: Not available.

Special guidance or precautions: Transport product in sealed containers. Avoid creating dust. Avoid release to the environment. Ensure that persons transporting the product know what to do in the event of an accidental release or spillage.

SECTION 15 – Regulatory Information

U.S. Federal regulations: This product contains one or more chemical components or ingredients that may require identification and/or reporting under SARA Section 302, SARA Section 311/312/313, CERCLA and/or TSCA. An examination of the components of this product should be conducted by a qualified environmental professional to determine if such identification or reporting is required by federal law.

- Components: Calcium oxide, aluminum oxide, aluminum sulfate, silica (crystalline), iron III oxide.

State regulations: This product contains one or more chemical components or ingredients that are included or listed on the hazardous substances lists for one or more of the following states: California, Maine, Massachusetts, Minnesota, New Jersey, Pennsylvania and Rhode Island. An examination of the components of this product should be conducted by a qualified environmental or safety and health professional to determine the specific requirements for those states.

- Components: Calcium oxide, aluminum oxide, aluminum sulfate, silica (crystalline), iron III oxide.

California Proposition 65:  WARNING! This product contains crystalline silica and may also contain chemicals (trace metals) known to the State of California to cause cancer, birth defects or other reproductive harm. California law requires the above warning in the absence of definitive testing to prove the defined risks do not exist.

SECTION 16 – Other Information

History

Last Revised: 2 June 2021

Previous versions: 1 June 2018
1 June 2015

Additional information

Working safely with this product requires the user to recognize that OXCON Systems Accelerator chemically reacts with water, and that some of the intermediate products of this reaction (that is, those present while the grout product is “setting”) pose a far greater hazard than dry OXCON Systems Accelerator.

Wet OXCON Systems Accelerator can cause caustic burns to unprotected skin, sometimes referred to as cement burns. Employees cannot rely on pain or discomfort to alert them to cement burns because cement burns may not cause immediate pain or discomfort. By the time an employee becomes aware of a cement burn, much damage has already been done. The safest method to use OXCON Systems Accelerator is to avoid contact with exposed skin completely. Any employee experiencing a cement burn is advised to see a health care professional immediately.

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of OXCON Systems Accelerator as it is commonly used, the sheet cannot anticipate and provide the all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the information furnished in this safety data sheet does not address hazards that may be posed by other materials not commonly mixed with cement products. Users should review other relevant safety data sheets before working with this cement product.

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