

Section 1. Product and Company Identification**Product Name:** Pentra-Shield®**Product use:** Concrete anti-scaling, dust proofer, hardener, sealer.**Effective Date:** 31 October 2013

Manufacturer Information: Convergent Concrete Technologies
115 North 1380 West
Orem, UT 84057
Telephone number: 801-375-2280

USA Emergency Phone Number:**INFOTRAC (24-hr/7 days): 1-800-535-5053****Outside the United States: Call collect 1-352-323-3500****For Medical Emergency: Call 1-800-535-5053****Section 2. Hazard Identification****GHS Pictograms:****GHS Signal Word:** WARNING

This product is alkaline. Avoid contact with eyes and skin. Keep out of reach of children.

The product may be harmful if it is inhaled or swallowed.

POTENTIAL HEALTH EFFECTS:**CODE OF HAZARD STATEMENTS:****Physical hazards**

None.

Health Hazards

H303-may be harmful if swallowed.

H312-Harmful in contact with skin.

H319-Causes serious eye irritation.

H333-May be harmful if inhaled.

Environmental hazards

None.

CODE OF PRECAUTIONARY STATEMENTS:**General**

P101-Keep out of reach of children.

P103-Read label before use.

Prevention statements

P202-Do not handle until all safety precautions have been read and understood.

P262-Do not get in eyes, on skin or on clothing.

P264-Wash thoroughly after handling using this product.

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

P284-Wear respiratory protection.

Response statements

P312-Call a POISON CENTER or doctor/physician if you feel unwell.

P331-DO NOT induce vomiting.

P340, Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P352, Wash with plenty of soap and water.

P362, Take off contaminated clothing and wash before reuse.

Storage

P403-Store in well-ventilated place.

P404-Store in a closed container.

ROUTES OF ENTRY: Eye contact, skin adsorption, ingestion and inhalation.**CARCINOGENICITY:** None know at this time.

Section 3. Ingredients and Hazards Identification

Components				
Component	CAS #	EINECS No	% by weight	REACH Reg. #
Silane	Prop.	Prop.	1-10	No
Silane	Prop.	Prop.	1-10	Yes
Lithium Silicate	12627-14-4	235-730-0	10-50	Yes
Water	7732-18-5	231-791-2	Balance	No

REACH Registration number is the EINECS # and CAS#: lithium silicate is 23573001267144.

Section 4. First Aid Measures

Eye Contact: Flush eyes with water immediately while holding eyelids open. Remove contacts, if worn, after initial flushing and continue flushing for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: Use soap and water to remove from the skin, remove contaminated clothing, clean thoroughly before reuse.

Inhalation: Move to fresh air. If not breathing, give rescue breathing. If breathing is difficult, give oxygen. Seek medical attention if breathing is still difficult.

Ingestion: If swallowed, get medical attention immediately. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person.

Section 5. Fire Fighting Measures

Flash Point: Not flammable

Flammability Limits: NE

Fire Fighting Media: Dry chemical, carbon dioxide, and water spray.

Special Fire Fighting Procedures: First responders need to wear full-bunker gear with SCBA, never enter a confined space unless fully protected with proper personal protective equipment (PPE). Material is alkaline and may cause the floor to be slippery.

Section 6. Accidental Release Measures

Clean-up Procedures: Material is alkaline wear proper PPE. Stop the source of the release if you are not put at risk. Use absorbent material (such as sand or kitty litter) to absorb the spill, use plastic shovel to pick up absorbent for disposal.

Spills and Leaks: Dispose in accordance to local, state or federal regulations.

Section 7. Handling and Storage

Handling: Do not get into eyes. Do not taste or swallow. Wash thoroughly after handling.

Storage: Store in original labeled container. Keep in cool and dry areas.

Section 8. Exposure Control/Personal Protection

Introductory Remarks: Consider the potential hazards of this product outlined in section 3. Use process exposures such as local exhaust ventilation, to control over exposure to airborne levels above recommended exposure limits.

Personal Protection:

Eyes: Wear safety goggles or safety glasses to prevent eye contact.

Body: Long sleeve shirts, long pants, socks, rubber boots and chemical resistant gloves.

Hands: Chemical resistant gloves

Respiratory: Wear an approved respirator (NIOSH TC-84A rated or EN 14387) that provides protection from this product if the airborne concentrations exceed the recommended exposure limits.

Other: None

Section 9. Physical and Chemical Properties

Odor/Color	Odorless & white liquid	Vapor Pressure	< 2.2 torr @ 68 °F (20 °C)
pH	11.0	Density(water=1)	1.056 @ 68°F (20 °C)
VOC	< 50g/L	Solubility	> 95 % in water
Evaporation rate(water=1)	< 1.0	Boiling Point	212 °F (100 °C)
Freezing point	0 °C (32 °F)	Vapor density (air=1)	> 1

Section 10. Stability and Reactivity

Chemical Stability: Considered stable under normal ambient temperatures.

Hazardous Decomposition: If complete combustion, oxides of carbon and silicates are formed.

Hazardous Polymerization: Will not occur.

Incompatibility~ Materials to Avoid: May react with strong oxidizing agents and strong acids.

Section 11. Toxicological Information

Acute Eye Irritation: Irritating.

Acute Skin Irritation: Chronic exposure may be irritating.

Acute Dermal Toxicity: Not expected to be toxic through the skin.

Acute Inhalation Toxicity: Not determined, expected to be an irritant to the respiratory system.

Carcinogenic Effects: None

Existing Medical Conditions Aggravated by Exposure: Exposure to eyes and skin may cause irritation to pre-existing conditions.

Section 12. Ecological Information

Ecotoxicity: The toxicity of this product has not been determined.

Environmental Fate: This product should be expected to be readily biodegradable.

Section 13. Disposal Considerations

Waste Disposal Method: What ever cannot be saved for recovery or recycling should be managed by the local, state or Federal Regulations.

Container Handling and Disposal: All containers should be triple rinsed and disposed of according to local, state and Federal regulations.

Section 14. Transport Information

Ground Classification: Not regulated by US DOT

Shipping Name: Pentra-Shield®

Technical Shipping Name: None

UNFIC: None

ID Number: None

Packaging Group: None

Labels: No US DOT Labels

Not regulated by IATA or IMO

Section 15. Regulatory Information

EPCRA 311/312 Categories: Immediate (Acute) Health Effects:	Yes
Delayed (Chronic) Health Effects:	Yes
Fire Hazard:	No
Sudden Release of Pressure	No
Reactivity:	No

European Community:  irritating (Xi) substances

Right to know classification: All ingredients are listed in CA, FL, MA, MI, MN, PA and NJ.

TSCA: All ingredients listed or exempt from listing.

Reportable Quantity (RQ): None

Prop. 65: None

WHMIS: Xi (Irritant to the eyes and skin)

All ingredients are listed as chemical inventories of ACIS, ECL, EEC, ENCS, EU, Israel, MAC, MAK, MITI,

PICCS, SWISS, Taiwan, USA and UK

ABBREVIATIONS:

CAS # Chemical Abstract Service Number

EINECS European Inventory of existing
Commercial Chemical Sales

°C Celsius temperature scale

°F Fahrenheit temperature scale

Prop. Proprietary

PE Personal Protective Equipment

TLV Threshold Limit Value

TWA Time Weighted Average

STEL Short-term Exposure Limit

PEL Permissible Exposure Limit

OSHA Occupational Safety & Health

NIOSH National Institute of Safety & Health

NFPA National Fire Protection Agency

WHMIS Workplace Hazardous Materials Information
System

NTP National Toxicology Program

IARC Int. Agency for Research on Cancer

RCRA Resource Conservation Recovery Act

TSCA Toxic Substance Control Act

EC50 Effective Dose

LC50 Lethal Inhalation Concentration

LD50 Lethal Dose

CAS Chemical Abstract Service Number

LEL Lower explosive limit

UEP Upper explosive limit

NDA No Data Available

ND Not determined

NE None established

NA Not Applicable

< Less Than or Equal To

> Greater Than or Equal To

CNS Central Nervous System

CI China

DSL Canada

ECL Korean Existing Chemicals List

EEC European Economic Commission

ENCS Japanese Existing and New Chemical List

EU European Union

MAC Netherlands

MAK Germany

MITI Japan

PICCS Philippines

SWISS Giftliste 1

UK United Kingdom

USA United States

VOC Volatile organic content

ACGIH American Conference of Government
Industrial Hygienists

SARA Superfund Amendments and Reauthorization Act

AICS Australian Inventory of Chemical Substances

IARC International Agency for Research on Cancer

Taiwan List of Toxic Chemical Substances regulated under Taiwan Toxic Chemical Substances
Control Act of 1086

Section 16. Other Information

Hazardous Material Information (HMIS)**National Fire Protection Association (NFPA)**

Health	1	1	Health
Fire	0	0	Fire
Reactivity	0	0	Instability
Personal Protection	E		NA

Health 4 Deadly 3 Extreme Danger 2 Dangerous 1 Slight hazard 0 No hazard

Fire 4 < 73 °C 3 < 100 °C 2 < 200 °C 1 >200 °C 0 Will not burn

Reactivity/Instability 4 – May detonate 3 Explosive 2 Unstable 1 Normally stable 0 Stable

Risk phrases: R36, Irritating to eyes; R37, Irritating to respiratory system; and R38, Irritating to skin.

Safety phrases: S2, Keep out of reach of children; S24, Avoid contact with skin; S25, Avoid contact with eyes; S37, Wear suitable gloves; and S39, Wear eye/face protection.

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