SAFETY DATA SHEET
XTREME SHIELD

REVISION: June 6, 2016
SUPERSEDES: November 8, 2010
VERSION NO.: 1

Section 1: Product and Company Identification:

1.1 Product Identifier

Product Form:	Mixture
Identification of Substance:	Lithium stabilized colloidal silica and acrylic polymer solution
Product Name:	Xtreme Shield
Synonym:	Colloidal silica and polyacrylic acid solution
CAS Number:	12627-14-4
Index Number:	Not available.
EINECS Number:	235-730-0
REACH Registration Number:	Not registered by NNT
Formula:	SiO_2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use:	Concrete coatings.
Restrictions on Use:	For industrial use only, not for food, drug or home use.

1.3 Details of the supplier of the safety data sheet

Company Identification:	Xtreme Hard Densifier 9924 Universal Blvd. Suite 224-115, Orlando, FL 32819 888-203-6791
Internet:	www.XtremeHardDdensifier.com

1.4 Emergency telephone number

In Case of Emergency:	CHEMTREC: 1-800-424-9300 International CHEMTREC: +1 (703) 527-3887 24 Hours/Day: 7 Days/Week

Section 2: Hazard(s) Identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Not classified.

Classification according to Regulation (EC) No. 1272/2008 (CLP)

Not classified.

Classification according to Directive 67/548/EEC and 1999/45/EC (including amendments)

Not classified.

2.2 Label Elements

Not labelled.

Signal Word: Not applicable.

Hazard Pictogram: Not applicable.

Hazard Statement(s): Not applicable.

Precautionary Statement(s): Not applicable.

2.3 Other Hazards

Components do not meet the criteria for a PBT or vPvB substance.

2.4 Unknown acute toxicity (GHS US)

No information available.

Section 3: Composition / Information on Ingredients

Mixture consisting of the following components:

Component Name:	Product Identifier	GHS Classification	Percent By Weight
Silicon Dioxide: REACH: 05-2117294571-38-0000	CAS: 7631-86-9 EINECS: 231-545-4 Index: Not available	Not classified	3
Polyacrylic acid:	Trade secret, not a hazardous substance	Not classified	15
Dipropylene Glycol n-Butyl Ether:	CAS: 29911-28-2 EINECS: 249-951-5 Index: Not available	Not classified	3
Water:	CAS: 7732-18-5 EINECS: 231-791-2 Index: Not available	Not classified	76
Lithium hydroxide monohydrate:	CAS: 1310-66-3 EINECS: 603-454-3 Index: Not available	Acute Tox 4, H302, Harmful if swallowed. Skin Corr. 1A, H314, Causes severe skin burns and eye damage.	<1

Impurities: Present at a level below that to be taken into account for classification.

Stabilizing Additives: Present at a level below that to be taken into account for classification.

The supplier currently has no knowledge on additional ingredients that are classified and that contribute to the classification of this substance.

See Section 16 for a list of hazards if identified above.

Section 4: First-Aid Measures

4.1 Description of first aid measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of the eye and lids with water. Get medical attention.

Skin Contact: In case of contact, immediately flush skin with plenty of water for several minutes. Remove contaminated clothing. Get medical attention if skin irritation develops or persists.

Inhalation: If inhaled, remove to fresh air. If not breathing, clear person's airway and give artificial respiration. If breathing is difficult, qualified medical personnel may administer oxygen. Get medical attention.

Ingestion: If a person is conscious and can swallow, immediately give two glasses of water (16 oz. or 500 ml.) but do not induce vomiting. If vomiting occurs, give fluids again. Do not give anything by mouth to an unconscious or convulsing person. Get medical attention.

First Aid Facilities: Eye wash station.

Advice to Physicians: No further relevant information available.

4.2 Most important symptoms and effects, both acute and delayed

Acute or delayed effects are not anticipated.

4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

Section 5: Fire-Fighting Measures

5.1 Extinguishing Media

Suitable Extinguishing Media:	All are suitable. Use water spray, dry chemical, foam or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.
Unsuitable extinguishing media:	None known.

5.2 Special hazards arising from the substance or mixture

Flammability of the product:	Material will not burn in a fire. Containers can build pressure if exposed to heat or fire.
Special Hazard Arising from the Chemical:	None known.
Fire Hazard:	None known.
Explosion Hazard	None known.
Reactivity:	None known.

5.3 Advice for firefighters

Special Protective Equipment for Fire-fighters:	Wear standard full firefighter turn-out gear (full bunker gear) and respiratory protection (SCBA).

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Eye protection and impervious gloves. An approved air-purifying respirator should be worn if dust or mist is present.

6.1.1 For non-emergency personnel

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions

Prevent entry into sewers and waterways.

6.3 Methods and material for containment and cleaning up

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

6.4 Reference to other sections

For more information on exposure controls and personal protection or disposal considerations, check section 8 and 13 of this SDS.

Section 7: Handling and Storage

7.1 Precautions for safe handling

Minimum feasible handling, and temperatures should be maintained. Avoid generating mist during use. Use only in well ventilated area.

7.1.1 Protective measures

Use only in well ventilated areas. As a precautionary measure, the wearing of standard work gear is suggested.

7.1.2 Advice on general occupational hygiene

Avoid inhalation, ingestion and contact with eyes. General occupational hygiene measures are required to ensure a safe handling of the substance. These measures involve good personal and housekeeping practices (i.e. regular cleaning with suitable cleaning devices), no eating, drinking and smoking at the workplace and wearing standard working clothes and shoes unless otherwise stated. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Shower and change clothes at end of work shift. Do not wear contaminated clothing at home.

7.2 Conditions for safe storage, including any incompatibilities

Keep from freezing. Periods of exposure to high temperatures should be minimized. Provide sufficient ventilation in storage and workrooms. Store in a cool dry area.

7.3 Specific end use(s)

No additional information available. Refer to Section 1.2 of this SDS.

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters

8.1.1 National Limit Values

Occupational Exposure Limits

Silicon Dioxide, CAS 7631-86-9

Country	Occupational exposure limit	Reference period	Reference
USA	80 mg/m³/%SiO2	8 hours	OSHA PEL - http://www.cdc.gov/niosh/idlh/7631869.html
UK	6 mg/m³ (inhalable)	8 hours	Health and Safety Executive- http://www.hse.gov.uk/pubns/priced/eh40.pdf
Germany	4 mg/m³ (inhalable)	8 hours	Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (MAK Commission): http://www.dfg.de/en/dfg_profile/statutory_bodies/senate/health_hazards/index.html
Belgium	10 mg/m³	8 hours	Service public fédéral Emploi, Travail et Concentration sociale: http://www.emploi.belgique.be/WorkArea/showcontent.aspx?id=23914
Austria	2 mg/m³ (inhalable)	8 hours	http://www.arbeitsinspektion.gv.at/NR/rdonlyres/F173280B-D4FB-44D2-8269-8DB2CB1D2078/0/GKV2011.pdf

8.1.2 DNELs and PNECs

Silicon Dioxide, CAS 7631-86-9

DNEL (Derived No Effect Level)	
Route of Exposure/Environmental protection target	**DNEL**
Inhalation - Long term/systemic effects	4 mg/m³
PNEC (Predicted No Effect Concentration)	

No information available

8.2 Exposure Controls

Engineering Controls:	Ventilation adequate to meet occupational exposure limits.
Hygiene Measures:	Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be changed and laundered or dry-cleaned.
Respiratory:	Airborne concentrations should be kept to lowest levels possible. If
Hands:	Wear impervious gloves such as neoprene.
Eyes:	Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.
Skin:	Wear clean body-covering clothing; impervious gloves such as neoprene. Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.
Environmental Exposure Controls:	Adverse effects of this material on the environment have not been evaluated. Proper disposal techniques to isolate and recover material should be implemented.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance (Physical State, Color):	Opaque white liquid. The product is a water-based material.
Upper/lower flammability or explosive limits:	Not determined.
Volatile by Weight:	80%
Odor:	Slight ammonia.
Vapor Pressure:	2260 kPs (17 mm Hg) at 20°C water
Odor Threshold:	Not determined.
Vapor Density:	Not determined.
pH:	10-11
Relative Density:	1050 kg/m^3
Melting point/freezing point:	Not determined.
Solubility in Water:	Soluble in water.
Initial boiling point and boiling range:	100° C (212° F) water
Flashpoint:	Not applicable.
Evaporation Rate:	Slow (Butyl Acetate = 1)
Flammability (solid, gas):	Material will not burn in a fire.
Partition Coefficient:	Not determined.
Auto-ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
Viscosity:	Less than 20 cP
Specific Gravity:	1.05
Freezing Point:	0°C (32° F) water
Explosion Limits:	Not applicable.
Oxidizing Properties:	Not an oxidizer.

9.2 Other information

Not applicable.

Section 10: Stability and Reactivity

10.1 Reactivity

Not determined.

10.2 Chemical Stability

Stable.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

No recommendations.

10.5 Incompatible materials

Water reactive materials, strong oxidizers.

10.6 Hazardous decomposition products

Dried product can burn, yielding acrylic monomers and/or organic residue and carbon monoxide.

Section 11: Toxicological Information

11.1 Information on toxicological effects

Acute toxicity:

LD50, Rat, Oral Values for classification:

Silicon Dioxide:	3160 mg/kg
Dipropylene Glycol n-Butyl Ether:	3700 mg/kg

Polyacrylic Acid: >5000 mg/kg based on materials of similar composition. No data is available on the polyacrylic acid formulation.

Lithium hydroxide monohydrate: 368 mg/kg

Skin corrosion/irritation: Avoid contact with skin, may cause skin irritation or dryness.

Eye damage / eye irritation: Avoid contact with eyes, may cause irritation.

Inhalation: Use breathing protection when aerosol or mist is formed. Breathing dried dust or spray mist causes irritation. OSHA exposure limit: Amorphous Silica = 20 mppcf (5 mg/M^3) SiO_2 respirable dust or mist. 8-hour time weighted average. Exposure analysis method: NIOSH Manual of Analytical Methods, 3rd edition, Method 7501.

Ingestion Effects: Repeated ingestion or ingestions of large doses of soluble lithium compounds is reported to cause temporary mental function impairment. Repeated ingestion or ingestion of large doses of soluble lithium compounds during pregnancy is reported to cause fetal abnormalities.

Sensitization: No sensitizing effect known.

Chronic Effects: No further relevant information available.

Carcinogenicity No data indicating any concern for carcinogenicity.

Section 12: Ecological Information

12.1 Aquatic Toxicity, Silicon Dioxide CAS #7631-86-9

Not harmful to aquatic organisms.

12.2 Persistence and degradability

Bioconcentration potential is low.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB Assessment

The PBT and vPvB criteria of Annex XIII to the Regulation do not apply to this product.

12.6 Other adverse effects

No further relevant information available.

Section 13: Disposal Considerations

This information presented only applies to the materials as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Disposal Considerations:	The product should be recycled or solidified for disposal in a landfill approved for chemical waste.
United States:	The product is not a RCRA hazardous waste.

Section 14: Transport Information

The product is not restricted for transportation.

Sections 14.1 - 14.4

Regulations

U.S. D.O.T.: Not regulated.

ICAO/IATA: Not regulated.

IMO/IMDG: Not regulated.

ADR: Not regulated.

14.5 Environmental Hazards

Not an environmental hazard for transport.

14.6 Special precautions for user

None.

14.7 Transport bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

Section 15: Regulatory Information

15. 1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Worldwide Chemical Inventories

EINECS (EU):	All ingredients listed
TSCA (USA):	All ingredients listed
DSL (Canada):	All ingredients listed
AICS (Australia):	All ingredients listed
ENCS (Japan):	All ingredients listed
ECL (Korea):	All ingredients listed
PICCS (Philippines):	All ingredients listed
IECSC (China):	All ingredients listed

State Right-to-Know Laws:	Section 3 of this SDS lists all components of the product.
California Proposition 65:	No ingredients listed.
SARA Section 311/312 (29 CFR 1910.1200) Hazards:	Product is not classified as hazardous.
SARA 313, 304 and CERCLA 102 (A):	No ingredients listed.
WHMIS:	Not controlled.
Controlled Products Regulations:	This SDS contains all the information items specified in Schedule 1, Column 3 of the Controlled Products Regulations in a 16-heading format.

15. 2 Chemical safety assessment

A chemical safety assessment has not been carried out.

Section 16: Other Information

List of relevant hazard phrases:
H302, Harmful if swallowed.
H314, Causes severe skin burns and eye damage.

National Fire Protection Association (U.S.A.) 704 Hazard Rating: Health-1, Flammability-0, Reactivity-0, Special-None

HMIS® Hazard Rating:	Health-1, Flammability-0, Reactivity-0, Protective Equipment - B; safety glasses, gloves.
Recommended Use:	The product is recommended for use in coatings for concrete. Other uses have not been investigated and may have other hazards. For industrial use only, not for food, drug or home use.
Work Alert:	Workers using the product should read and understand this SDS and be trained in the proper use of this material.
Other Special Considerations:	None known.
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Revision Date:	June 6, 2016
Supersedes:	November 8, 2010