

Material Name: Elemix® Concrete Additive, Aged

MSDS ID: ELEMIX-0137

Section 1 - Product and Company Identification

Synonyms: Foamed Polystyrene
Chemical Name: Expanded Polystyrene

Chemical Family: Plastic

Material Use: Building and Construction Industry

Chemical Formula: Article

SYNTHEON Inc. <u>EMERGENGY Telephone Numbers</u>:

Building 25, Avenue A

North America (Canada and US): 1-888-765-6554 (SGS) (24 hours)

Buncher Commerce Park

Mexico and South America: +32.3.575.1130 (SGS) (24 hours)

Leetsdale, PA 15056

Product Information Telephone Number: +1-412-749-0442 Product Information Email: <u>elemix@syntheoninc.com</u>

Section 2 - Hazards Identification

HMIS Ratings: Health: 1* Fire: 1 Physical Hazard: 0 Personal Protection: Safety Glasses, Gloves

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe * = Chronic hazard

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Emergency Overview

Product is a solid, white, foamed bead and may have a slightly fruity, aromatic odor. This product is not considered flammable according to OSHA, but will burn on prolonged exposure to flame or high temperature. Product may outgas residual blowing agent that can collect in confined areas and is highly flammable in the presence of open flames, lit cigarettes, sparks, static electricity discharges or heat. This product may be irritating to the eyes, skin and respiratory system. When heated to decomposition, product emits acrid smoke and irritating fumes. Slipping hazard.

Potential Health Effects: Eve

Contact with hot or molten material may cause severe thermal injury including, in extreme contact, possible blindness. Eye contact with powder or fines may cause mechanical irritation.

Potential Health Effects: Skin

Contact with hot or molten material may cause severe thermal burns. Skin contact with powder or fines may cause mild irritation that is increased by mechanical rubbing or if skin is dry.

Potential Health Effects: Ingestion

Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances. Mechanical irritation and blockage of the digestive tract are possible.

Potential Health Effects: Inhalation

Inhalation of fine particles may cause respiratory irritation. Dust and fumes produced during handling and processing may cause irritation to the respiratory system.

Section 3 - Composition/Information on Ingredients

CAS No.	Component	Percent by Wt.
9003-53-6	Polystyrene	>99

Additional Information

This product is not hazardous under 29 CFR 1910.1200 (Hazard Communication).

This product is not a controlled product under Canadian WHMIS regulations.

This product is not regulated as hazardous material/dangerous goods for transportation.

See Section 8 for applicable exposure limits. See Section 11 for applicable toxicity data.

Page 1 of 9 Revision Date: October 29, 2012 Print Date: October 28, 2010

MSDS ID: ELEMIX-0137

Material Name: Elemix® Concrete Additive, Aged

Section 4 - First Aid Measures

First Aid: Eyes

Remove contact lenses, if worn, and immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention if symptoms develop or persist.

First Aid: Skin

Wash affected area with soap and water. Seek medical attention if symptoms develop or persist. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product, or molten product that has cooled, from skin without medical assistance.

First Aid: Inhalation

Move affected individual to non-contaminated air. Loosen tight clothing such as a collar, tie, belt or waistband to facilitate breathing. Seek immediate medical attention if the individual is not breathing, is unconscious or if any other symptoms persist.

First Aid: Ingestion

Product is not expected to be absorbed from the gastrointestinal tract. DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

First Aid: Notes to Physician

Burns should be treated as thermal burns. Molten resin detaches as healing occurs; therefore, immediate removal from the skin is not necessary. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient. After adequate first aid, no further treatment is necessary unless symptoms reappear. Ingested material should pass through the digestive system without injury.

Section 5 - Fire Fighting Measures

See Section 9: Physical Properties for flammability limits, flash point and auto-ignition information.

General Fire Hazards

This product is not considered flammable according to OSHA, but will burn on prolonged exposure to flame or high temperature. Accumulated dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapors are also present. May accumulate hazardous static charge. Product may contain residual blowing agent which can accumulate in confined space. Blowing agents are a dangerous fire and explosion risk. Vigorously supports combustion. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Move bulk bags from the fire area if this can be done without risk.

Explosion Hazards

Product may contain residual blowing agent which can accumulate in confined space. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Accumulated fine dusts may form an explosive mixture with air. Take precautionary measures to prevent contact with electrostatic discharges. Risk of dust-air explosion is increased if flammable vapors are present.

Hazardous Combustion Products

Styrene, oxides of carbon, and other toxic gases at elevated temperatures.

Extinguishing Media

Dry chemical, foam, carbon dioxide, water fog or spray. Use water to cool fire-exposed bulk bags and to protect personnel. Do not use direct water stream.

Fire Fighting Equipment/Instructions

Position upwind. Keep unnecessary personnel away. Move bulk bags from fire area if you can do so without risk. Fight fire from maximum distance or use unmanned holders or monitor nozzles. Immediately withdraw in case of fire and tank venting or heat discoloration of a container. Fire fighters should wear full-face, self-contained breathing apparatus and thermal protective clothing. Avoid inhaling any smoke and combustion products. Remove and clean or destroy any contaminated clothing. Cool bulk bags with flooding quantities of water until well after the fire is out. Control runoff waters to prevent entry into sewers, drains, ditches, underground or confined spaces and waterways.

Page 2 of 9 Revision Date: October 29, 2012 Print Date: October 29, 2012

MSDS ID: ELEMIX-0137

Material Name: Elemix® Concrete Additive, Aged

Section 6 - Accidental Release Measures

Evacuation Procedures

Isolate area. Keep unnecessary personnel away. Alert stand-by emergency and fire fighting personnel.

Small Spills

Spilled product may create a dangerous slipping hazard. Eliminate all sources of ignition. Consider isolating the spill or leak area immediately until ambient air sampling results indicate that the pentane vapor (blowing agent) concentration is below the flammable range. Use appropriate non-sparking tools to put the spilled solid in an appropriate waste disposal container.

Large Spills

Flammable vapors may be released from spills. Use water spray curtain to divert vapor drift. Eliminate all sources of ignition. Consider evacuating the spill or leak area immediately until ambient air sampling results indicate that the pentane vapor (blowing agent) concentration is below the flammable range. Prevent entry of product into sewers, drains, ditches, underground or confined spaces and waterways. Dike if needed.

Special Procedures

Contact local police/emergency services and appropriate emergency telephone numbers provided in Section 1. Ensure that statutory and regulatory reporting requirements in the applicable jurisdiction are met. Wear appropriate protective equipment and clothing during cleanup. Individuals without appropriate protective equipment should be excluded from area of spill until cleanup has been completed.

Damaged or Suspect Damaged Containers

If bulk bags are damaged or suspected to have been damaged during transit, open the truck trailer door slowly and ventilate for 15 minutes. Never permit smoking. Test the atmosphere to ensure the air is free of pentane (blowing agent) before entering.

Section 7 - Handling and Storage

Handling Procedures

Handle in contained and properly designed equipment systems. Handle and process this product in a cool, wellventilated place. Provide adequate ventilation at all times. Avoid ingestion and inhalation. Keep this product from heat, sparks, lit smoking materials (cigarettes), static electricity discharges or open flame. Ground and bond all material handling and transfer equipment to dissipate buildup of static electricity. Keep handling areas free of loose beads and dust accumulation. Mechanical operations involving this product should be done in such a manner as to prevent or minimize dust generation. Fines or dust contained in granular resins may accumulate in material handling systems. If permitted to accumulate, these fines or dust can, under certain conditions, pose an explosion hazard. Every effort should be made to prevent suspension, concentration or accumulation of fines or dusts in, or around, material handling systems. For additional information on control of static and minimizing potential dust and fire hazards, refer to NFPA 654, "Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids, 2006 Edition." Spilled product may create a dangerous slipping hazard. Keep away from incompatibles such as oxidizing agents and organic materials. Keep this material in a cool, well-ventilated place.

Maintain sufficient air circulation and ventilation to prevent flammable concentrations from forming, especially in low-lying areas. After opening the bulk bag in a well-ventilated area, allow 15 minutes for the accumulated pentane (blowing agent) to dissipate. Partially opened bulk bags represent a potentially serious hazard because the insides of the container permit a space for the pentane to accumulate.

Shipping containers, trucks and trailers should be ventilated for at least 15 minutes prior to unloading.

Print Date: October 29, 2012 Page 3 of 9 Revision Date: October 29, 2012

Material Name: Elemix® Concrete Additive, Aged

Storage Procedures

Store only in sealed original bulk bag in a dry, cool, well-ventilated area out of direct sunlight. Store product away from incompatible materials, heat, sparks, lit smoking materials (cigarettes), static electricity discharges, open flame, or any other potential ignition sources. Do not store near spark-producing equipment. Shatter-proof lighting and intrinsically safe electrical systems are recommended. Store according to applicable standards and regulations for flammable materials. Have appropriate monitoring/detection and extinguishing capabilities readily available in storage areas (e.g. flammable gas detectors, fixed systems such as sprinkler and deluge systems, portable fire extinguishers). Storage areas should be clearly identified, well-illuminated, and clear of obstruction. Adequate security must be provided so that unauthorized personnel do not have access to product.

MSDS ID: ELEMIX-0137

Remove bulk bags from storage area prior to opening. Bulk bags should be opened only in well ventilated areas. Use only properly grounded and bonded systems when handling or transferring product. Use only non-sparking or static dissipative tools. Re-seal previously opened bulk bag liners prior to placing partial bags into storage. Do not enter filled bulk bags or attempt to walk on bulk bags or spilled product due to risk of slipping and possible suffocation.

See Section 8: Exposure Controls/Personal Protection for appropriate Personal Protective Equipment. See Section 10 for information on Incompatibilities.

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines

A: General Product Information

Refer to published exposure limits - utilize effective control measures and PPE to maintain worker exposure to concentrations that are below these limits. Ensure that eyewash stations and safety showers are in close proximity to work locations.

B: Component Exposure Limits

ACGIH, OSHA, NIOSH, EPA, Alberta and Ontario exposure limit lists have been checked for major components listed with CAS registry numbers. Other exposure limits may apply; check with authorities.

*NOTE: The Vacated OSHA Permissible Exposure Limits (PELs) are those provided in the 1989 update to OSHA's Air Contaminants Standard 29 CFR 1910.1000. These limits were vacated by the U.S. Court of Appeals, Eleventh Circuit buy may be enforceable in some states.

Polystyrene (9003-53-6)

ACGIH: 10 mg/m3 TWA (inhalable particles, recommended); 3 mg/m3 TWA (respirable particles,

recommended) (related to Particulates (insoluble or poorly soluble) not otherwise specified

OSHA (Vacated)*: 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) (related to Particulates not

otherwise regulated)

15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction) (related to Particulates not OSHA (Final):

otherwise regulated)

10 mg/m3 TWA (total particulate); 3 mg/m3 TWA (respirable particulate) (related to Alberta:

Particulates not otherwise regulated)

10 mg/m3 TWA (inhalable); 3 mg/m3 TWA (respirable) (related to Particulates (insoluble or Ontario:

poorly soluble) Not Otherwise Classified (PNOC))

ENGINEERING CONTROLS

Engineering methods to reduce hazardous exposure are preferred controls. Methods include mechanical ventilation (dilution and local exhaust), process or personal enclosure, remote and automated operation, control of process conditions, leak detection and repair systems and other process modifications. Ensure all exhaust ventilation systems are discharged to outdoors, away from air intakes and ignition sources. Supply sufficient replacement air to make up for air removed by exhaust systems. Administrative (procedure) controls and use of personal protective equipment may also be required.

Page 4 of 9 Revision Date: October 29, 2012 Print Date: October 29, 2012

Material Name: Elemix® Concrete Additive, Aged

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses during normal handling. Wear full-face shield if contact with molten material is likely.

Personal Protective Equipment: Skin/Hands/Feet

Use impervious gloves when handling product. Work clothing that sufficiently prevents skin contact should be worn such as coveralls and/or long sleeves and pants. Fire resistant (i.e., Nomex) or natural fiber clothing (i.e., cotton or wool) is recommended. Synthetic clothing can generate static electricity and is not recommended where a flammable vapor release may occur. Wear safety footwear with good traction to prevent slipping. Static dissipative (SD) rated footwear is recommended.

MSDS ID: ELEMIX-0137

Personal Protective Equipment: Respiratory

If engineering controls and ventilation are not sufficient to prevent buildup of dusts or vapors, appropriate NIOSH approved air-purifying respirators or self-contained breathing apparatus (SCBA) appropriate for exposure potential should be used. Air-supplied breathing apparatus must be used when oxygen concentrations are low or if airborne concentrations exceed the limits of the air-purifying respirators.

Personal Protective Equipment: General

Personal protective equipment (PPE) should not be considered a long-term solution to exposure control. Employer programs to properly select, fit, maintain and train employees to use equipment must accompany PPE. Consult a competent industrial hygiene resource, the PPE manufacturer's recommendation and/or applicable regulations to determine hazard potential and ensure adequate protection.

Section 9 - Physical & Chemical Properties

Physical State and Appearance:	Solid foamed beads	Color:	White
Odor:	Slightly fruity, aromatic	pH:	Not applicable
Vapor Pressure:	Not available	Vapor Density at 0°C (Air=1):	Not available
Boiling Point:	Not available	Melting Point:	240°C (464°F) (Polystyrene)
Solubility (H2O):	Insoluble	Specific Gravity (Water=1):	<1
Auto Ignition:	427°C (800.6°F) (Polystyrene)	Softening Point:	Not available
Flash Point:	Not available	Flash Point Method:	Not available
Lower Flammable Limit (LFL):	Not available	Upper Flammable Limit (UFL):	Not available
Flammability Classification:	Not available		

Section 10 - Stability & Reactivity Information

Chemical Stability

This product is stable under normal use conditions for shock, vibration, pressure or temperature.

Instability

No information is available.

Chemical Stability: Conditions to Avoid

Keep this product from heat, ignition sources, static electricity discharges and incompatible materials.

Incompatibility

Not resistant to oxidizing agents, dissolves in organic solvents. Powders or dusts may form an explosive mixture with air. Risk of dust-air explosion is increased if flammable vapours are also present.

Possibility of Hazardous Reactions or Hazardous Polymerization

Hazardous polymerization not likely to occur.

Corrosivity

Not corrosive to the common metals.

Hazardous Decomposition

Styrene, oxides of carbon, and other toxic gases at elevated temperatures.

Print Date: October 29, 2012 Page 5 of 9 Revision Date: October 29, 2012

Material Name: Elemix® Concrete Additive, Aged

Section 11 - Toxicological Information

A: Acute Toxicity - General Product Information

This product has not been tested. Exposure to high levels of dust or heated fumes may be irritating to the eyes. Skin/eye contact with molten or heated material may cause burns. Vapors/heated fumes may be irritating to the respiratory system.

MSDS ID: ELEMIX-0137

B: Acute Toxicity - LD50/LC50

No LD50/LC50's are available for this product's components.

C: Chronic Toxicity - General Product Information

No information for the product as a tested mixture.

D. Chronic Toxicity - Carcinogenic Effects

ACGIH, EPA, IARC, OSHA, and NTP carcinogen lists have been checked for selected similar materials or those components with CAS registry numbers.

Polystyrene (9003-53-6)

IARC: Supplement 7 [1987]; Monograph 19 [1979] (Group 3 (not classifiable))

Section 12 - Ecological Information

Ecotoxicity

The information below is based on knowledge of the components and the ecotoxicity of similar products. Sewer/waterway obstruction: marine life may indest beads which may obstruct their digestive tract. Product is expected to be non-toxic but small particles may have physical effects on aquatic and terrestrial organisms.

Component Analysis - Ecotoxicity - Aquatic Toxicity

No ecotoxicity data are available for this product's components.

Environmental Fate/Mobility

No information available for the product as a tested mixture. This product will float in freshwater and/or seawater. May be persistent in aquatic and terrestrial systems. Product should be recovered from water and land following spills.

Persistence/Degradability

No information available for the product as a tested mixture. Expected to be inherently non-biodegradable. Integrated environmental half-life expected to be >= 100 days. Do not allow product to enter sewer or waterways. Blowing agents are expected to rapidly volatize from soil and water.

Bioaccumulation/Accumulation

No information available for the product as a tested mixture. It is considered to have little potential for bioaccumulation or food chain concentration.

Section 13 - Disposal Considerations

U.S./Canadian Waste Information

A: General Product Information

This product, if discarded, is not expected to be a hazardous waste according to US or Canadian regulations. The use, mixing or processing of this product may alter its properties or hazards. Check local, state, federal and provincial environmental regulations prior to disposal. Preferred disposal methods for polymers in order of preference are: 1) clean and reuse if possible; 2) recover and resell through plastic recyclers or resin brokers, 3) incinerate with waste heat recovery and 4) landfill. Reuse, recycling, storing, transportation and disposal must be in accordance with applicable federal, state/provincial and local regulations. DO NOT ATTEMPT DISPOSAL BY UNCONTROLLED IGNITION. Open burning of plastics at landfills is not acceptable.

See Section 7: Handling and Storage and Section 8: Exposure Controls/Personal Protection for additional handling information that may be applicable for safe handling and the protection of employees.

Waste generator is advised to carefully consider hazardous properties and control measures needed for other materials that may be found in the waste.

Page 6 of 9 Revision Date: October 29, 2012 Print Date: October 29, 2012

MSDS ID: ELEMIX-0137

Material Name: Elemix® Concrete Additive, Aged

B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

Section 14 - Transportation Information

International Air Transport Association (IATA) and International Civil Aviation Organization (ICAO) Information

Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

International Maritime Dangerous Goods (IMDG) Code

Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

US DOT Information

Shipping Name: NOT REGULATED as Hazardous Material for Transportation.

Canadian TDG Information

Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

ADR Transportation Regulations

Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

RID Transportation Regulations

Shipping Name: NOT REGULATED as Dangerous Goods for Transportation.

Section 15 - Regulatory Information

A: International Regulations

The monomer is listed by EINECS for polystyrene homopolymer.

Component Analysis - International Inventory Status

Component	CAS No.	US - TSCA	EU - EINECS	CANADA - DSL
Polystyrene	9003-53-6	Yes	Exempt	Yes

B: USA Federal & State Regulations

Ongoing occupational hygiene, medical surveillance programs, site emission or spill reporting may be required by federal or state regulations. Check for applicable regulations.

USA OSHA Hazard Communication Class

This material is not considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

USA Right-to-Know - Federal

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

USA Right-to-Know - State

None of this product's components are listed on the state lists for NJ or PA. Some components (including those present only in trace quantities, and therefore not listed in this document) may be included on the Right- To- Know lists of other U.S. states. The reader is therefore cautioned to contact his or her SYNTHEON Inc. representative for further U.S. State Right- To- Know information.

C: Canadian Regulations - Federal and Provincial

Canadian Environmental Protection Act (CEPA): All components of this product are on the Domestic Substances List (DSL), and are acceptable for use under the provisions of CEPA.

WHMIS Ingredient Disclosure List (IDL)

No components are listed in the WHMIS Ingredient Disclosure List (IDL).

WHMIS Classification

Workplace Hazardous Materials Information Systems (WHMIS): This product has been classified in accordance with Canadian Controlled Product Regulations (CPR) hazard criteria and this MSDS contains complete CPR-required information.

Other Regulations

Ongoing occupational hygiene, medical surveillance programs, site emission or spill reporting may be required by federal or provincial regulations. Check for applicable regulations.

Page 7 of 9 Revision Date: October 29, 2012 Print Date: October 29, 2012

Material Name: Elemix® Concrete Additive, Aged

Section 16 - Other Information

Label Information

Product is a solid, white, foamed bead and may have a slightly fruity, aromatic odor. This product is not considered flammable according to OSHA, but will burn on prolonged exposure to flame or high temperature. Product may outgas residual blowing agent that can collect in confined areas and is highly flammable in the presence of open flames, lit cigarettes, sparks, static electricity discharges or heat. This product may be irritating to the eyes, skin and respiratory system. When heated to decomposition, product emits acrid smoke and irritating fumes. Slipping hazard. FIRST AID:

MSDS ID: ELEMIX-0137

SKIN: Wash affected area with soap and water. Seek medical attention if symptoms develop or persist. In case of contact with molten product, cool rapidly with water and seek immediate medical attention. Do not attempt to remove molten product, or molten product that has cooled, from skin without medical assistance.

EYES: Remove contact lenses, if worn. Immediately flush eyes with water for at least 15 minutes, while holding eyelids open. Seek medical attention if symptoms develop or persist.

INHALATION: Move affected individual to non-contaminated air. Loosen tight clothing such as a collar, tie, belt or waistband to facilitate breathing. Seek immediate medical attention if the individual is not breathing, is unconscious or if any other symptoms persist.

INGESTION: Product is not expected to be absorbed from the gastrointestinal tract. DO NOT INDUCE VOMITING. Loosen tight clothing such as a collar, tie, belt or waistband. Seek immediate medical attention.

IN CASE OF A SPILL: Eliminate all sources of ignition. Use appropriate non-sparking and grounded tools and equipment to put the spilled solid in an appropriate waste disposal container. Prevent entry into sewers, basements or confined areas; dike if needed. Slipping hazard.

References

Available on request.

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Transport of Dangerous Goods by Road; ADR/RID = European Agreement of Dangerous Goods by Road/Rail; BOD = Biochemical Oxygen Demand; CAS = Chemical Abstracts Service; CEPA = Canadian Environmental Protection Act; CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act; CFR = Code of Federal Regulations; CPR = Controlled Products Regulations; DFG = Deutsche Forschungsgemeinschaft; DOT = Department of Transportation; DSL = Domestic Substances List; EC50 = Effective Concentration 50%; EEC = European Economic Community; EINECS = European Inventory of Existing Commercial Chemical Substances; ELINCS = European List of Notified Chemical Substances; EPA = Environmental Protection Agency; EU = European Union; FDA = Food and Drug Administration; GHS = Globally Harmonized System for the Classification and Labelling of Chemicals; HCS = Hazard Communication Standard; HMIS = Hazardous Materials Identification System; IARC = International Agency for Research on Cancer; IATA = International Air Transport Association; ICAO = International Civil Aviation Organization; IDL = Ingredient Disclosure List; IDLH = Immediately Dangerous to Life or Health; IMDG = International Maritime Dangerous Goods; IMO = International Maritime Organization; ISHL = Industrial Safety and Health Law; Kow = Octanol/water partition coefficient; LC50 = Lethal Concentration 50%; LD50 = Lethal Dose 50%, LEL = Lower Explosive Limit; LFL = Lower Flammable Limit; LLV = Level Limit Ceiling Limit (Sweden dust); MAK = Maximum Concentration Value in the Workplace; MITI = Ministry of International Trade and Industry; MSDS = Material Safety Data Sheet; NAB = Threshold Values (Indonesia); NCEC = National Chemical Emergency Centre; NDSL = Non-Domestic Substances List; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; NJTSR = New Jersey Trade Secret Registry; NTP = National Toxicology Program; OEL = Occupational Exposure Limit; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; PNOC = Particulates Not Otherwise Classified; PPE = Personal Protective Equipment; PRTR = Designated Chemical Substance Law (Japan); PSD = Short Term Exposure Limit (Indonesia); RCRA = Resource Conservation and Recovery Act; REACH = Registration, Evaluation, Authorisation and Restriction of Chemical Substances; REL = Recommended Exposure Limit; RID = Transport of Dangerous Goods by Rail; SARA = Superfund Amendments and Reauthorization Act; SCBA = Self Contained Breathing Apparatus; SDS = Safety Data Sheet; SEPA = State Environmental Protection Administration; STEL = Short Term Exposure Limit; TDG = Transportation of Dangerous Goods; TLV = Threshold Limit Value; TSCA = Toxic Substances Control Act; TWA = Time Weighted Average; UEL = Upper Explosive Limit; UFL = Upper Flammable Limit; VLA-ED = Valor límite Ambiental de Exposición Diaria (Environmental Exposure Daily Limit Value); VME = valeur limite d'exposition (Occupational Exposure Limits); WHMIS = Workplace Hazardous Materials Information

Safety Data Sheet Prepared by: SYNTHEON Inc.

Safety Data Sheet Information Telephone Number: +1-412-749-0442

Safety Data Sheet Information Email: elemix@syntheoninc.com

MSDS History

Original Issue Date: 28 October 2010

Revised: 25 August 2011 Revised: 29 October 2012

Other Information

Notice to Reader

Page 8 of 9 Revision Date: October 29, 2012 Print Date: October 29, 2012

Material Name: Elemix® Concrete Additive, Aged

MSDS ID: ELEMIX-0137

ALTHOUGH THE INFORMATION CONTAINED IN THIS DOCUMENT IS PRESENTED IN GOOD FAITH, BASED ON AVAILABLE INFORMATION BELIEVED TO BE RELIABLE AT THE TIME OF PREPARATION OF THIS DOCUMENT, SYNTHEON Inc. MAKES NO WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION OR THE PRODUCTS DESCRIBED HEREIN, AND EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES AND CONDITIONS (INCLUDING ALL WARRANTIES AND CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). NO FREEDOM FROM INFRINGEMENT OF ANY PATENT OWNED BY SYNTHEON Inc. OR OTHERS IS TO BE INFERRED. THIS INFORMATION IS SUBJECT TO CHANGE WITHOUT NOTICE. PLEASE CONTACT SYNTHEON Inc. FOR THE MOST CURRENT VERSION OF THIS MSDS. SYNTHEON Inc. DOES NOT ASSUME RESPONSIBILITY FOR MSDS OBTAINED FROM THIRD PARTY SOURCES.

UNLESS SPECIFICALLY AGREED OTHERWISE, SYNTHEON Inc. DOES NOT TAKE RESPONSIBILITY FOR USE, TRANSPORTATION, STORAGE, HANDLING OR DISPOSAL OF THE PRODUCTS DESCRIBED HEREIN.



is a registered trademark and the SYNTHEON logo is a trademark of SYNTHEON Inc.

 $\label{eq:controller} \textbf{Elemix}^{\texttt{@}} \ \textbf{is a registered trademark and the Elemix logo is a trademark of SYNTHEON, Inc.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Inc. for the building and construction industry.} \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ , \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive is sold through SYNTHEON} \ . \\ \textbf{Elemix}^{\texttt{@}} \ \textbf{Concrete additive additive additive additive addit$

This is the end of MSDS # ELEMIX-0137.

Print Date: October 29, 2012 Page 9 of 9 Revision Date: October 29, 2012