SECTION 1 : Identification of the substance/preparation and of the company / undertaking

(a) GHS product identifier
Garreco Plaster Separator

(e) Emergency phone number
CHEMTREC 1-800-424-9300

(b) Other means of identification
NA

(c) Recommended use of the chemical and restrictions on use
For professional dental applications.

(d) Supplier's details
Garreco, LLC
430 Hiram Road
Heber Springs, AR 72543
Phone: (800) 334-1443

SECTION 2: Hazards identification

(a) GHS classification of the substance/mixture

Substance Name
1 Sodium Silicate

(b) Label Elements

Hazard statements
Irritating to eyes and skin.

Precautionary statements

Prevention

Do not get in eyes, on skin, or on clothing
Keep container tightly closed.
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area.
Wash thoroughly after handling.
Contaminated work clothing should not be allowed out of the workplace.

Response

IF ON SKIN (or hair): In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. If skin irritation or rash occurs: Get medical advice/attention.

IF IN EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If eye irritation persists: Get medical advice/attention.

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

IF INGESTED: If swallowed, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

In case of fire: Use chemical foam, carbon dioxide, or dry chemical to extinguish.

Storage

Store in a well-ventilated place. Keep cool. Keep container tightly closed
Store locked up in clean steel or plastic containers.
Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

Disposal

Dispose of contents and container in accordance with local/regional/national/international regulations.

Hazard Symbol(s)
Exclamation mark

Signal Word(s)
Warning

(c) Other hazards which do not result in classification

ND

SECTION 3: Composition/information on ingredients

(a) Chemical(s) Identity:		**Mixture:**
(b) Common Name:	**(c) CAS No.**	**Concentration (Percentage)**
1 Sodium Silicate	1344-09-8	37%

SECTION 4: First-aid measures

(a) Description of first aid measures:

IF ON SKIN (or hair): In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention.

IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen., Get medical attention.

IF SWALLOWED: If ingested, DO NOT induce vomiting. Get medical attention immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

IF IN EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Call a POISON CENTER or doctor if you feel unwell.

(b) Most important symptoms and effects, both acute and delayed:

Alkaline. Irritating to eyes and skin. The toxicity of sodium silicate is dependent on the silica to alkali ratio and on the pH.

(c) Indication of any immediate medical attention and special treatment needed:

If not breathing or breathing is difficult, if vomiting or unconscious obtain immediate medical attention.

SECTION 5: Fire-fighting measures

(a) Suitable extinguishing media:

This material is compatible with all extinguishing media.

(b) Special hazards arising from the chemical or mixture:

N/A

(c) Special protective equipment and precautions for fire-fighters:

The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots.

SECTION 6: Accidental release measures

(a) Personal precautions, protective equipment and emergency procedures:

Before cleaning any spill or leak, individuals involved must wear appropriate Personal Protective Equipment (e.g. chemical goggles, protective clothing, chemical resistant gloves, and rubber boots). Place into appropriate closed container(s) for disposal in accordance with local, state and federal regulations. Wash all affected areas with plenty of warm water and soap. Remove any contaminated clothing and wash thoroughly before reuse.

(b) Environmental precautions:

Sinks and mixes with water. High pH of this material is harmful to aquatic life. Only water will evaporate from a spill of this material.

(c) Methods and material for containment and cleaning up:

SMALL SPILL: Mop up and neutralize liquid, then discharge to sewer in accordance with federal, state and local regulations or permits.

LARGE SPILL: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike, and store discharged material, if possible. Use sand or earth to contain spilled material. If containment is impossible, neutralize contaminated area and flush with large quantities of water.

SECTION 7: Handling and storage

(a) Precautions for safe handling:

Avoid contact with eyes, skin and clothing. Avoid breathing spray mist. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.

(b) Conditions for safe storage, including any incompatibilities:

Keep containers closed. Store in clean steel or plastic containers. Separate from acids, reactive metals, and ammonium salts. Storage temperature 0-95°C. Loading temperature 45-95°C. Do not store in aluminum, fiberglass, copper, brass, zinc or galvanized containers.

SECTION 8: Exposure controls/Personal protection

(a) Control parameters:

	ACGIH		OSHA	
Chemical	**TLV**	**TLV-STEL**	**PEL TWA**	**PEL CEILING**
Sodium Silicate	N/E	N/E	N/E	N/E

(b) Appropriate Engineering Controls:

Use with adequate ventilation. Keep containers closed. Safety shower and eyewash fountain should be within direct access.

(c) Individual protection measures:

RESPIRATORY: Use a NIOSH-approved dust and mist respirator where spray mist occurs. Observe OSHA regulations for respirator use (29 C.F.R §1910.134)

EYE PROTECTION: Wear chemical goggles.

PROTECTIVE GLOVES: Wear body-covering protective clothing and gloves.

SECTION 9: Physical and chemical properties

(a) Appearance:	Thick clear liquid
(b) Odor:	Odorless or musty odor
(c) Odor threshold:	N/D
(d) pH:	Approximately 12.4
(e) Melting point / freezing point:	N/A
(f) Initial boiling point and boiling range:	100°C
(g) Flash point:	N/A
(h) Evaporation rate (BuAc=1):	N/A
(i) Flammability:	N/A
(j) Upper/lower flammability or explosive limits:	N/A
(k) Vapor Pressure:	N/A
(l) Vapor density:	N/A
(m) Relative density:	N/A
(n) Solubility:	Miscible
(o) Partition coefficient: n-octanol/water:	N/D
(p) Auto-ignition temperature:	N/E
(q) Decomposition temperature:	N/A
(r) Viscosity:	N/A

SECTION 10: Stability and reactivity

(a) Reactivity:	Stable
(b) Chemical stability:	Stable
(c) Possibility of hazardous reactions:	Will not occur
(d) Conditions to avoid:	Gels and generates heat when mixed with acid. May react with ammonium salts resulting in evolution of ammonia gas. Flammable hydrogen gas may be produced on contact with aluminum, ten, lead, and zinc.
(f) Hazardous decomposition products:	Hydrogen

SECTION 11: Toxicological information

Acute toxicity	NA
Skin corrosion/irritation	When tested for eye and skin irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin. Human experience indicates that skin irritation occurs, particularly, when sodium silicates get on clothes at the collar, cuffs or other areas where contact and abrasion may occur.
Serious Eye Damage / Irritation	When tested for eye and skin irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin.
Respiratory or skin sensitization	When tested for eye and skin irritation potential, a similar material caused moderate irritation to the eyes and moderate irritation to the skin.
Germ cell mutagenicity	This product is not reported to produce mutagenic effects in humans.
Carcinogenicity	None of the components of this material are listed by IARC, NTP, OSHA, or ACGIH as carcinogens.
Reproductive toxicity	Decreased numbers of births and survival to weaning was reported for rats fed sodium silicate in their drinking water at 600 and 1200 ppm.
STOT-single exposure	N/D
STOT-repeated exposure	In a study of rats fed sodium silicate in drinking water for three months, at 200, 600, and 1800 ppm, changes were reported in the blood chemistry of some animals, but no specific changes to the organs of the animals due to sodium silicate administration were observed in any of the dosage groups. Another study reported adverse effects to the kidneys of dogs fed sodium silicate in their diet at 2.4g/kg/day for 4 weeks, whereas rats fed the same dosage did not develop any treatment-related effects.
Aspiration Hazard	NA

(a) Exposure route: Eyes and lungs.

(b) Symptoms related to the physical, chemical and toxicological characteristics:
See below.

(c) Delayed and immediate effects and also chronic effects from short and long tem exposure:
Tears, blurred vision, and redness. May cause skin irritation and can cause skin sensitization. Irritating to the respiratory tract. Can also cause irritation, burning sensation of the mouth, and throat/gastrointestinal tract and abdominal pain. May cause nausea, headache, vomiting and/or diarrhea.

(d) Numerical measures of toxicity:
N/D

SECTION 12: Ecological information

(a) Ecotoxicity:

The following data is reported for sodium silicates on a 100% solids basis; A 96 hour median tolerance for fish (Gambusis affnis) of 2320 ppm; a 96 hour median tolerance for water fleas (Daphnia magna) of 247 ppm; a 96 hour median tolerance for snail eggs (Lymnea) of 632 ppm; and a 96 hour median tolerance for Amphipoda of 160 ppm. This product contains approximately 37.1% sodium silicate.

(b) Persistence and degradability:

This material is not persistent in aquatic systems, but its high pH when undiluted or unneutralized acutely harmful to aquatic life. Diluted material rapidly depolymerizes to yield dissolved silica in a form that is indistinguishable from natural dissolved silica. It does not contribute to BOD.

(c) Bioaccumulative potential

This material does not bioaccumulate except in species that use silica as a structural material such as diatoms and siliceous sponges. Where abnormally low natural silica concentrations exist (less than 0.1 ppm), dissolved silica may be a limiting nutrient for diatoms and a few other aquatic algal species. However, the addition of excess dissolved silica over the limiting concentration will not stimulate the growth of diatom populations; their growth rate is independent of silica concentration once the limiting concentration is exceeded. Neither silica nor sodium will appreciably bioconcentrate up the food chain.

(d) Mobility in soil:

N/A

(e) Other adverse effects:

Sinks and mixes with water. Only water will evaporate from this material. The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

SECTION 13: Disposal considerations

Product:

Recommendation

Disposed material is not a hazardous waste. Dispose in accordance with federal, state and local regulations and permits.

SECTION 14: Transport information

(a) UN Number

N/D

(b) UN Proper shipping name

N/D

(c) Transport hazard class(es)

N/D

(d) Packing Group

N/D

(e) Environmental hazards

N/D

(f) Transport in bulk

N/D

(g) Other Information

N/D

SECTION 15: Regulatory information

SARA Reporting Requirements:	N/A
SARA Threshold Planning Quantity:	Not an Extremely Hazardous Substance under §302. Not a toxic chemical under §313. Hazard Categories under §§311/312: Acute.
TSCA Inventory Status:	All ingredients of this material are listed on the TSCA inventory.
Other Federal Requirements:	The use of sodium silicate is authorized by FDA as a boiler water additive for the production of steam that will contact food pursuant to 21 CFR §173.310; as a component of zinc-silicon dioxide matrix coatings on food contact surfaces pursuant to 21 CFR §175.390(c); as a GRAS substance when migrating from cotton fabric used in dry food packaging pursuant to 21 CFR §182.70; and as a GRAS substance when migrating to food from paper and paperboard products pursuant to 21 CFR §182.90.
Other Canadian Regulations:	This product has been classified in accordance with the hazard criteria of the controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.
State Regulatory Information:	This product and its ingredients are not listed, but it may contain impurities/trace elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement ACT.

SECTION 16: Other information

PREPARED BY: Kathryn Harris
GAR QMS SDS REFERENCE: A151

HAZARDOUS MATERIAL IDENTIFICATION (HMIS) RATING:

Health	2
Flammability	0
Reactivity	0
Other	Gloves and Safety Glasses or Chemical Splash Goggles.

REVISION NUMBER: 150629

CHANGES FROM PREVIOUS VERSION: INITIAL VERSION

ABBREVIATIONS

NA Not Applicable
ND Not Determined
NE Not Established
ppm parts per million
G Gallon
mg Milligram
L Liter
gm Gram
mol Mole
kg Kilogram
µ Micro
mm Millimeter
p Pico
Pa Pascals
c cento
LC Lethal Concentration
ACGIH American Conference of Governmental Industrial Hygienist
CPR Controlled Product's Regulation
NDSL Canadian Non-domestic Substance List
IARC International Agency for Research for Cancer
OSHA Occupational Safety and Health Administration
LD Lethal Dose
TC Toxic Concentration
TD Toxic Dose
BOD Biological Oxygen Demand
COD Chemical Oxygen Demand
Lo Lowest
ThOD Theoretical Oxygen Demand
TLm Threshold Limit
IC Inhibitory Concentration
DOC Dissolved Organic Carbon
H Hours
M Months
D Days
Y Years
W Weeks
DSL Canadian Domestic Substances List
NOEL No Observed Effect Level
NOAEL No Observed Adverse Effect Level
PEL Permissible Exposure Limit
TLV Threshold Limit Value

THIS MATERIAL SAFETY DATA SHEET IS PREPARED IN COMPLIANCE WITH FEDERAL REGULATIONS (29 CFR 1910.1200) OFCHEMICALS AND THE GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING REVISION 5. ANY APPLICABLE STATE AND LOCAL REGULATIONS SHOULD BE CONSULTED. THE ABOVE INFORMATION MAY BE BASED IN PART ON INFORMATION PROVIDED BY COMPONENT SUPPLIERS AND IS BELIEVED TO BE CORRECT AS OF THE DATE HEREOF. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY USE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OF THESE DATA, THE RESULTS TO BE OBTAINED FROM THE USE OF THE MATERIAL, OR THE HAZARDS CONNECTED WITH SUCH USE. SINCE THE INFORMATION CONTAINED HEREIN MAY BE APPLIED UNDER CONDITIONS BEYOND OUR CONTROL AND WITH WHICH WE MAY BE UNFAMILIAR, AND SINCE DATA MADE AVAILABLE SUBSEQUENT TO THE DATE HEREOF MAY SUGGEST MODIFICATION OF THE INFORMATION, WE ASSUME NO RESPONSIBILITY FOR THE RESULT OF ITS USE. THIS INFORMATION AND MATERIAL IS FURNISHED ON THE CONDITION THAT THE PERSON RECEIVING IT SHALL MAKE HIS/HER OWN DETERMINATION AS TO THE SUITABILITY OF THE MATERIAL FOR HIS/HER PARTICULAR PURPOSE AND ON THE CONDITION THAT HE/SHE ASSUME THE RISK OF HIS/HER USE THEREOF.