GROENINK'S
MATERIAL AND DATA SHEET
GET A GRIP

Date Prepared: 2/13/16

I. Product Identity

PRODUCT NAME: 25-0-18

MFR INFO: Groenink's Elevator and Hardware
11260 Michigan Ave.
Nunica, MI 49448

FOR EMERGENCY: (800) 424-9300 (CHEMTREC)
FOR INFORMATION: (616) 837-7391

CURRENT AS OF: 3/12/16

II. Ingredient List

Potash
Urea
Dolomite Lime

III. Ingredient: Potash

Product Name	:	**Potash**
Product Form	:	Mixture
Product Code	:	GRA, SOG, STD, SUS
Other Identification	:	Muriate of Potash: Granular, Standard, and Suspension Grades, WST
Use of substance	:	Ferilizer
Physical state	:	solid
Appearance	:	Granular solid. Fine to 4 mm size.
Color	:	White to red
Odour	:	Slightly oily
Odour threshold	:	No data available
pH	:	7 (approximately)
Melting point	:	771 – 773 °C (1420 – 1423 °F)
Freezing point	:	No data available
Boiling point	:	1420 – 1500 °C (2588 – 2732 °F)
Flash point	:	Not available

Self ignition temperature	:	Not flammable
Decomposition temperature	:	No data available
Flammability	:	Not flammable
Vapour pressure	:	80 Pa at 20°C
Density	:	1.98 g/cc
Solubility	:	Water: 347 g/l (at 20°C)
Explosive limits	:	Not explosive
Explosive properties	:	None known
Oxidizing properties	:	None known
VOC content	:	< 0.5 %
Reactivity	:	Stable at ambient temperature and under normal conditions of use.
Chemical stability	:	Stable at standard temperature and pressure.
Possibility of hazards	:	Hazardous polymerization will not occur.
Conditions to avoid	:	Protect from moisture.
Incompatable materials	:	Contact with acids liberates toxic gas (chlorine). Contact with hot mitric acid may produce toxic nitrosyl chloride.
Hazardous decomposition Products	:	Contact with strong acids may produce hydrogen chlorine gas.

Firefighting Measures

Suitable extinguishing media	:	Not flammable. Use extinguishing media appropriate for surrounding fire.
Fire hazard	:	Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas.
Explosion hazard	:	Product is not explosive.
Reactivity	:	Stable at ambient temperature and under normal conditions of use.
Firefighting instructions	:	Keep upwind. Under conditions of fire this material may produce: Potassium oxides; Hydrogen chloride; Chlorine gas.
Protection during fire fighting:		Wear full fire-fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
Other Information	:	Do not allow run off from fire fighting to enter drains or water

courses.

GHS-US classification

Eye Irrit. 2B H320

GHS-US labelling

Signal word (GHS-US) : Warning

Hazard statements (GHS-US): H320 – Causes eye irritation

Precaustionary statements : P264 – Wash hands thoroughly after handling

P305+P351+P338 – If in eyes:Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 – If eye irritation persists: Get medical advice/attention.

Toxilogical Information

Acute toxicity : Not classified

Potash	
Additional information	Potassium chloride is listed by the FDA as "Generally Recognizes as Safe" (GRAS and may be used as a food additive according to prescribed conditions.
Potassium Chloride (7447-40-7	
LD50 oral rat	2600 mg/kg
Sodium Chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10 g/kg
LC50 inhalation rat (mg/l)	> g/m³ (Exposure time: 1 hr)

Ecological Information

Ecotoxicity:	
Acute toxicity to fish:	(Lepomis macrochirus) (blue gill) – 96 hour – LC_{50} = 2010 mg/L (ppm KCl)

Chronic toxicity to fish:	No data available
Acute toxicity to aquatic invertebrates:	(Daphnia magna) – 48 hours – EC_{50} – 337 – 825 mg/L; (Physa heterostropha) – 96 hrs – LC_{50} = 940 mg/L.
Chronic Toxicity to Aquatic Invertebrates:	No data available
Toxicity to aquatic plants:	((Nitzshia linearis)diatom) – 5 days – 120 hour Tlm = 1,337 ppm KCl; (Scendesmus subspicatus) 72 hour - EC_{50}
Toxicity to bacteria: (activated)	No data available
Toxicity to soil dwelling organisms:	No data available
Toxicity to terrestrial plants:	No data available

Enviromental Fate:

Stability in Water:	Ions can persist, dissociates in water
Stability in Soil:	Binds to clay particles
Transport and Distribution:	1.51 x 10^{-8} % to air; 45.2% to water; 54.7% to soil; 0.0755% to sediment

Toxicity:

Not toxic to aquatic organisms defined by USEPA

Degration Products:

Biodegradation:	No data available
Photodegration:	No data available

US State Regulations

Potash	SARA Sectin 311/312	Immediate (acute) health hazard
Potassium Chloride (7447-40-7)	Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Sodium Chloride (7647-14-5)	Listed on the United States TSCA (Toxic Substances Control Act) inventory

Full text of H- phrases:

Eye Irrit. 2	Serious eye damage/eye irritation (Category 2)
Skin Irrit. 2	Skin corrosion/irritation (Category 2)
STOT SE 3	Specific target organ toxicity (single exposure) (Category 3)
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

IV. Ingredient: Urea

Product Name	:	**Urea, Dry**
Product Code	:	URGRAN
Product Form	:	Mixture
Product Group	:	Commercial product
Synonyms	:	Urea Granular; Urea Microprills; Urea Pastille; Urea Prills
Physical State	:	Solid
Appearance	:	Granules
Colour	:	White
Odour	:	Slight Ammonia
pH	:	7.2 at 100g/l
Molecular weight	:	60.07
Melting Point	:	Decomposes above 132.6 °C (270.7 °F)
Vapour Pressure	:	80 Pa at 20°C
Flammability	:	Non-flammable
Density	:	2.31 g/cm³
Bulk Density	:	44-49 lb/ft³
		750 kg/m³
Solubility	:	1,193 g/l at 25ºC
Log Pow	:	-1.59 @ 20°C

GHS-Us Classification

Skin Irritation	2	H315
Eye Irritation	2A	H319
STOT SE	3	H335

Hazard Statements (GHS-US)

H315 – Causes skin irritation

H319 – Causes serious eye irritation

H335 – May cause respiratory irritation

Precautionary Statements (GHS-US)

P261 – Avoid breathing dust

P264 – Wash hands thoroughly after handling

P271 – Use only outdoors or in a well-ventilated area

P280 – Wear eye protection, protective gloves, protective clothing

P302+P352 – If on skin: wash with plenty of water

P304+P340 – If inhaled: remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and east to do. Continue rising.

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

P332+P313 – If skin irritation ocurs: Get medical advice/attention

P337+P313 – If eye irritation persists: Get medical advic/attention

P362 – Take off contaminated clothing

P403+P233 – Store in a well-ventilated place. Keep container tightly closed

P405 – Srore locked up

P501 – Dispose of contents/container in accordance with local regional, national, and international regulations.

Other Hazards	:	Hazardous to the aquatic environment
Reactivity	:	Stable at ambient temperature and under normal conditions of use
Chemical Stability	:	Stable ar srandard temperature and pressure
Possibility of hazardous	:	Hazardous polymerization will not occur.
Conditions to avoid	:	Protect from moisture. May slowly hydrolyze to ammonium carbamate and eventually decompose to ammonia and carboon dioxide.

Incompatable materials	:	May form explosive mixture if in contact with strong acid such as nitric or perchloric acids. Avoid contact with: strong oxidizers; strong acids or bases; nitrates; hypochlorites. Reacts with sodium or calcium hypochlorite to form explosibe nitrogen trichloride.
Fire Hazard	:	Decomposes above 132.6°C (270.7°F). Under conditions of fire this material may produce: Ammonia, Nitrogen oxides, and/or Biuret. Short-term exposures to smoke and gases may lead to irreversible lung injury without early signs and symptoms.
Explosion Hazard	:	Product is not explosive. May form explosive mixtures if mixed with strong acid (Nitric/Perchloric) and strong oxidizers.
General Measures	:	Handle in accordance with good industrial hygiene/safety practice.
Signal Word	:	Warning
Aquatic Environment Hazard:		Per OSHA 29 CFR 1910.1200(b)(5)(iii) labelling is not required for URPRLMIF or URPRLCF as labelling is covered under the requirements of the Food and Drug Administration (FDA) of the US Department of Agriculture (USDA).

Name	Product Identifier	% by Weight	GHS-US classification
Urea (Carbamide, Carbonyldiamide, Carbamidic Acid)	(CAS No.) 57-13-6	97.5 – 99.7	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Alkalinity, as Ammonia		150 ppm (max)	
Methylenediurea	(CAS No.) 13547-17-6	0 – 2.5	Eye Irrit. 2A, H319
Biuret	(CAS No.) 108-19-0	0 – 1.5	Skin Irrit. 2, H315 Eye Irrit. 2A, H319

Conrol Parameters:

Urea (57-13-6)		
USA ACGIH (nuisance dust)	ACGIH TWA (mg/m³)	10 mg/m³ – inhilation particulate
USA OSHA (nuisance dust)	OSHA PEL (TWA) (mg/m³)	5 mg/m³ – Respirable (particulate) Fraction: Urea

Toxilogical Information

Acute Toxicity : Not classified

LD50 Oral Rat	8471 mg/kg
LD50 Oral Rat	14,300 mg/kg-male; 15,000 mg/kg-female

LD50 Oral Mouse	11,500 mg/kg-male; 13,000 mg/kg-female

Skin corrosion/irritation	:	Causes skin irritation
Serious eye damage/irritation:		Causes eye irritation
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Bacterial Genetic Toxicity Invitro: Gene Mutation: Salmonella typhimurium – Bacterial reverse mutation assay: Negative Chinese Hamster - Chrosmosomal aberration test: Positive (very high dose); Mouse: Positive (very high dose). Non-Bacterial Genetic Toxicity In-Vitro: Chromosomal Aberration: Mouse – Bone Marrow Cytogenetic test: Positive (extremely high dose).
Carcinogenicity	:	Not listed in IARC Monographs, by NTP or OSHA
Reproductive Toxicity	:	Toxicity to Reproductive: No toxic affects on mouse gonads up to 6,750 mg/kg/day. No toxic affects on rat gonads up to 2,250 mg/kg/day. Developmental toxicity/ Teratogenicity: Not teratogenic.
Specific target organ toxicity (single exposure)	:	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	:	Not Classified
Aspiration hazard	:	Not Classified

Ecological Informations

Ecotoxicity	Acute Toxicity to Fish:	96 -h: (Barillius barna) LC_{50} =>9,000mg/L
	Chronic Toxicty to Fish:	No data available
	Acute Toxicity to Aquatic Invertebrates:	(Daphnia magna): 24-h EC_{50} : > 10,000 mg/L
	Toxicity to Aquatic Plants:	(Scenadesmus quadricauda) 192-hr cell multiplication
	Toxicity to Bacteria:	

	Toxicity to Soil Dwelling Organisms:	inhibition test-TT>10,000 mg/L
	Toxicity to Other Non Mammalian Terrestrial Species:	No data available
	Toxicity to Terrestrial Plants:	Applications of nitrogenous fertlizers to grassland for long periods of time may have deleterious effects on earthworms in the absence of liminig.
	Stablity in Water:	(Pigeon) – Subcutaneous – LDLO = 16,000 mg/kg. Since Urea is a fertilizer, it may promote eutrophication in waterways. Non-toxic to aquatic organisms as defined by USEPA.
		7 days exposure to 0mg urea / leaf-tip necrosis
		T½ > 1 year
Eviromental Fate:	Stability in Soil:	No data available
Toxicity:	Transport and Distribution: Non-toxic to aquatic organisms as defined by USEPA. No know toxicity.	.16% in air; 99.84% in water (calculated (Fugacity Level 1))
Degradation Products:	Biodegradation: Photodegradation:	Ultimetly biodegradable (OECDTG 302B) 93-98% (SCAS 24 hr) No data available.

Enviromental Precautions

If spill could potentially enter any waterway, including intermittent dry creeks, contact the U.S. Coast Guard National Response Center at 800-424-8802. In case of accident or road spill notify CHEMTREC at 800-424-9300.

Containment and Cleaning Up

If contaminated with other materials, contain and collect as any solid in suitable containers. Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Prevent large quantities from contacting vegitation.

Recover the product by vacuuming, shoveling, or sweeping and place in appropriate container to be disposed at an appropriate disposal facility according to current applicable laws and regulations and product chararcteristics at the time of disposal. Provide adequate ventilation. Avoid generation of dust during clean-up of spills. If uncontaminated, recover, reuse product.

Practice food housekeeping – spillage can be slippert on smooth surface either wet or dry.

Transport Information

UN number	:	No dangerous good in sense of transport regulations.
UN proper shipping name	:	Not applicable
Additional Information	:	No supplemetary information available.
Overland transport	:	No additional information.
Transport by sea	:	No additional information.
Air transport	:	No additional information availiable.

Regulatory Information

US Federal Regulations

Urea, Dry	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

Urea (57-13-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Biuret (108-19-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

The following states have an OSH program approved by OSHA. If you are located in any of these states you may be under state jurisdiction rather than federal jurisdiction and your state may have more stringent requirements than OSHA. You should consult your state regulations to ensure compliance.

Alaska	Indiana	Minnesota	North Carolina	Utah
Arizona	Iowa	Nevada	Oregon	Vermont
California	Kentucky	New Mexico	Puerto Rico	*Virgin Islands
*Connecticut	Maryland	*New Jersey	South Carolina	Virginia
Hawaii	Michigan	*New York	Tennesee	Washington
*Illinois				Wyoming

*The state plans in these states apply only to public sector employers. In these states private sector employers are subject to USOL – OSHA jurisdiction. All other state plans apply to both public and private sector employers.

Urea (57-13-6)
US – Minnesota – Hazardous Substance List US – Texas – Effects Screening Levels – Long term/Short term

Other Information

NFPA health hazard	:	2 – Intense or continued esposure could cause temporart incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	:	0 – Materials that will not burn.
NFPA reactivity	:	0 – Normally stable, even under fire exposure conditions, and are not reactive with water.

Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

V. Ingredient: Dolomite Lime

Product Name	:	**Dolomite Lime**

Recommended Use	:	Mineral filler, fluxing agent in steel and glass manufacturing
Signal Word	:	Danger
Hazard Statements	:	May cause cancer. May cause damage to organs (lungs) through prolonged or repeated exposure. Products designated 6x16, 10, 11P, 12, 17, or 20 – when shipped in bulk – may be hot (up to 250°F) at the time of shipment.

NFPA Hazard Class	Health:1	Flammability:0	Reactivity:0
HMIS Hazard Class	Health:1	Flammability:0	Reactivity:0

Appearance	:	Angular gray, white, and tan solid particles ranging in size from powder to boulders.
Odor	:	No odor
Vapor pressure	:	Not applicable
Odor threshold	:	Not applicable
Vapor density	:	Not applicable
pH	:	9.4 in saturated water solution
Relative density	:	Specific gravity = 2.7 – 2.9
Melting/Freezing point	:	Not applicable
Solubility	:	Negligible in water
Flash point	:	None
Evaporation rate	:	None
Flammability	:	Non flammable
Auto ignition temperature	:	Non flammable
Decomposition temperature	:	When heated at 1100 – 1700°F, dolomitic limestone decomposes into dolomitic quicklime releasing carbon dioxide gas.
Viscosity	:	Not applicable.
Reactivity	:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	:	Reacts with acids evolving CO2. Stable if no acids or stron oxidizing agents are present.
Hazardous polymerization	:	Will not occur.
Incompatibility	:	Ignites on contact with flourine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal. May cause pitting of aluminum.

Cleanup Procedures: Spilled materials, where dust is generated, may overexpose clean-up personnel

to respirable dust. Use of respiratory protective equipment may be necesssary. Don not dry sweep or use compressed air for clean-up. Dolomitic limestone may be wetted with water to control dusting. Prevent spilled materials from entering streams, drains, or sewers. Waste disposal method: pick up and reuse clean materials. Dispose of waste materials only in accordance with applicable federal, state, and local laws and regulations.

Recommendations on the conditions for safe storage: May cause pitting of aluminum. Ignites on contact with fluorine and other strong oxidizing agents and is incompatible with acids, ammonium salts, and magnesium metal.

Selected Occupational Exposure Limits (effective, June 1, 2015)

1 – Value equivalent to OSHA formulas (29 CFR 1910.1000) and MSHA Metal/Non-Metal (1973 TVLs at 30 CFR 56/57 .5001)

2 – Value also applies to MSHA Metal/Non-Metal (19073 TVLs at 30 CFR 56/57 .5001)

3 – OSHA enforces 0.250 mg/m^3 in construction and shipyards (CPL-03-00-007).

4 – Value also applies to OSHA construction (29 CFR 1926.55, Appendix A) and shipyards (CPL-03-00-007).

5 – MSHA limit = 10 mg/m^3.

6 – Value also applies to shipyards (29 CFR 1915), marine terminals (29 CFR 1917), and longshoring (29 Cfr 1918).

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	**Type**	**Value**	**Form**
Particulates not otherwise classified (CAS SEQ250)	PEL	5 mg/m3 15mg/m3	Respirable Fraction Total Dust
Calcium Carbonate (CAS 1317-65-3)	TWA	5mg/m3 15mg/m3	Respirable Fraction 6 Total Dust 5,6

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	**Type**	**Value**	**Form**
Crystalline Silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m3 0.1 mg/m3 2.4 mppcf	Total Dust. 1,2,3 Respirable. 1,2,3 Respirable. 1,2,3

Particulates not otherwise classified (CAS SEQ250)	TWA	5 mg/m3 15mg/m3 50 mppcf 15 mppcf	Respirable fraction. 1 Total Dust. 1,4,5 Total Dust. 1,4 Respirable fraction. 1
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)	TWA	0.15 mg/m3 0.05mg/m3 1.2 mppcf	Total Dust. 1 Respirable. 1 Respirable. 1

US. Acgih Threshold Limit Values

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable Fraction
Tridymite and Cristobalite (other forms of crystalline silica) (CAS Mixture)	TWA	0.025 mg/m3	Respirable Fraction

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Crystalline Silica (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust
Calcium Carbonate (CAS 1317-65-3	TWA	5 mg/m3 10 mg/m3	Respirable fraction. Total dust.

Exposure Guidlines: OSHA PELs, MSHA PELs, and ACGIH TLVs and 8-hr TWA values. NIOSH RELs are for TWA exposures up to 10 hr/day and 40-hr/wk. Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled. Terms including “Particulates Not Otherwise Classified”, “Particulates Not Otherwise Regulated”, “Particulates Not Otherwise Specified”, and “Inert or Nuisance Dust” are often used interchangeably; however, the user should review each agency's terminology for differences in meanings.

Toxicological Information

Inhalation: Repeated inhilation of respirable crystalline silica (quartz) may cause sillcosis, a fibrosis

(scarring) of the lungs. Silicosis is irreversible and may be fatal. Silicosis increases the risk of contracting pulmonary tuberculosis. Some studies suggest that repeated inhalation or respirable crystalline silica may cause other adverse health effects including lung and kidney cancer.

Skin contact: Limestone dust: May cause irritation through mechanical abrasion.

Eye contact: Limestone dust: May cause irritation through mehanical abrasion.

Ingestion: Not likely, due to the form of the product. However, accidental ingestion of the content may cause discomfory.

Symptoms related to the physical, chemical, and toxicological characteristics: Limestone dust: Discomfort in the chest. Shortness of breath. Coughing.

Information on toxilogical effects:

Acute toxicity	:	Not expected to be acutely toxic.
Skin corrosion/irritation	:	This product is not expected to be a skin hazard.
Serious eye damage and eye irritation:		Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization	:	No respiratory sensitizing effects known.
Skin Sensitization	:	Not known to be dermal irritant or sensitizer.
Germ cell mutagenicity	:	than 0.1% are mutagenic or genotoxic.
Carcinogenicity	:	Respirable crystalline silica has been classified by IARCand NTP as a known human carcinogen, and classified by ACGIH as a suspected human carcinogen.
Asplration hazard	:	Due to the physical form of the product it is not an aspiration hazard.
Chronic effects	:	Prolonged inhalation of respirable crystalline silica may be harmful. May cause damage to organs (lungs) through prolonged or repeated exposure. There are reports in the literature suggesting that excessive crystalline silica exposure may be associated with autoimmune disorders and other adverse health effects involving the kidney. In particular, the incidence of scleroderma (thickening of the skin caused by swelling and thickening of fibrous tissue) appears to be higher in silicotic

individuals. To date, the evidence does not conclusively dertermine a causal relationship between silica exposure and these adverse health effects.

Ecotoxicity: Not expected to be harmful to aquatic organisms. Discharging limestone dust and fines into waters may increase total suspended particulate (TSP) levels that can be harmful to certain aquatic organisms.

Other adverse effects: No other adverse environmental effects (e.g., ozone depletion, photochemical ozone creation potential, global warming potential) are expected from this component.

US Federal Regulations: This product is a "Hazard Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – Not Regulated

U.S. TSCA Inventory List. All Chemical ingredients are listed.

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261): Not Classified

CERCLA Hazardous Substance List (40 CFR 302.4) Not Listed

CERCLA Reportable Quantity (RQ): not listed

SARA Hazard categories

Immediate hazard – no

Delayed hazard – yes

Fire hazard – no

Pressure hazard – no

Reactivity hazard – no

SARA311/312 Hazardous Chemical : yes SARA 313 (TRI Reporting) – Not Regulated

SARA Toxic Chemical (40 CFR 372.65): not listed

SARA 302 (Extremely Hazardous Substance): not listed

OSHA – Air contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A)

Specifically Regulated Substance (29 CFR 1910): not listed

MSHA – not listed

Clean Air Act (CAA) Section 112 – Hazardous Air Pollutants (HAP's) List – Not Regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – Not Regulated

Safe Drinking Water Act (SDWA) – Not Regulated

VI. Other Hazard Information

Enviromental Protection:

Appropriate engineering controls: Use ventilation and dust collection to control exposure to below applicalbe limits.

Recommendations for personal protective measures: Respirable dust and quartz levels should be monitored regularly to determine worker exposure levels. Exposure levels in excess of allowable edposure limits should be reduced by all feasible engineering controlled including (but not limited to) wet suppression, ventilation, process enclosure, and enclosed employee workstations.

Any special requirements for PPE:

Eye protection: Safety glasses with side shields should be worn as minimum protection. Dust goggles should be worn when excessively (visibly) dusty conditions are present or anticipated.

Skin protection: Use gloves to provide hand protection from abrasion. In dusty conditions wear long sleeve shirt. Wash work clothes after each use.

Respiratory Protection: All respirators must be NIOSH-approved for the exposure levels present. (See NIOSH Respirator Selection Guide). The need for respiratory protection should be evaluted by a qualified safelty and health professional. Activities that generate dust require the use of an apprpriate dust respirator where dust levels exceed or are likely to exceed allowable exposure limits. For respirable silica levels that exceed or are likely to exceed an 8 hr Time Weighted Average (TWA) of 0.5 mg/m3, a high efficiency particulate filter respirator must be worn at a minimum; however, if respirable silica levels exceed or are likely to exceed an 8 hr TWA of 5.0 mg/m3 a positive pressure, full face respirator or equivalent is required. Respirator use must comply with applicalbe MSHA (42 CFR 84) or OSHA (29 CFR 1910.134) standards, which include provisions for a user training program, respirator inspection, repair and cleaning, respirator fit testing, medical surveillance and other requirements.

Disposal Information:

Disposal instructions: Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

Hazardous waste code: Not regulated

Waste from residues: Disposal recommendations are based on the material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

Contaminated packaging: Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Transport Information:

DOT – not regulated as dangerous goods.

IATA – not regulated as dangerous goods.

IMDG – not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code – not applicable.

However, the product is covered under Appendix I of the IMSBC Code.

Regulatory Information:

US federal regulations: This product is not known to be a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D) – not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050) – not listed

CERCLA Hazardous Substance List (40 CFR 302.4) – not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Immediate hazard – no

Delayed hazard – no

Fire hazard – no

Pressure hazard – no

Reactivity hazard – no

SARA 302 Extremely hazardous substance – not listed

SARA 311/312 Hazardous chemical – no

SARA 313 (TRI reporting) – not regulated

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List – not regulated

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) – not regulated

Safe Drinking Water Act – not regulated

Food and Drug – total food additive

Administration (FDA) – direct food additive; GRAS food additive

Other Information:

Further information: HMIS is registered trade and service mark of the NPCA. A HMIS Health rating including an * indicates a chronic hazard.

HMIS ratings: Health: 1

Flammability: 0

Physical Hazard: 0

Abbreviations: LC50: Lethal Concentration, 50%; LD50: Lethal Dose, 50%

VII. Conditions of Sale and Warranty

The directions of use for this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result bcause of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of Groenink's

Elevator and Hardware, Inc. or the Seller. All such risks shall be assumed by the Buyer. Groenink's Elevator and Hardware, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in its Direction for Use subject to the inherent risks referred to above. **Groenink's Elevator and Hardware, Inc USA makes no other express or implied Warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Groenink's Elevator and Hardware, Inc. or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this Product.** Groenink's Elevator and Hardware, Inc. and the Seller offer this product, and the Buyer and user except it, subject to the foregoing Conditions of Slae and Warranty, which may be varied only by agreement in writing