SAFETY DATA SHEET

PRODUCT CODE: 903SLx

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **AG903SLx PART A**
PRODUCT CODES: **903SLx A**

MANUFACTURER: **ArmorGarage LLC**
STREET ADDRESS: **1260 North Avenue**
CITY, STATE, ZIP: **Plainfield, NJ 07062**

INFORMATION PHONE: **(866)7532-3979**
EMERGENCY PHONE: **Chemtrec 800-424-9300**
FAX PHONE: **(973) 453-8114**

PREPARED BY: **ArmorGarage LLC**

DATE REVISED: **5/4/24**

Chemical Name or Class: **liquid component of a multi-component urethane**

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: **Not classified as dangerous according to the regulation**
Label Elements: None
GHS Label Elements and Precautionary Statements:
Hazard Statements:
This mixture does not meet the criteria for classification.
Precautionary statements:
Keep out of reach of children.
Read label before use
Response:
Wash hands after handling
Store away from incompatible materials.
Disposal:
P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

HMIS HAZARD CLASSIFICATION
HEALTH: 1 **FLAMMABILITY: 1** **REACTIVITY: 0** **PERSONAL PROTECTIVE EQUIPMENT: B**
POTENTIAL HEALTH EFFECTS
EYES:
MATERIAL OR HIGH VAPOR CONCENTRATION CAN CAUSE IRRITATION TO THE EYES.
SKIN:
CAN CAUSE IRRITATION TO SKIN.
INGESTION:
LIQUID CAN CAUSE IRRITATION TO THE MUCOUS MEMBRANES IF SWALLOWED.
INHALATION:
HIGH VAPOR CONCENTRATION CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT.
HEALTH HAZARDS (ACUTE AND CHRONIC):
PROLONGED OR REPEATED EXPOSURE MAY CAUSE SKIN SENTIZATION OR OTHER ALLERGIC RESPONSES.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.
CARCINOGENICITY
OSHA: NO **NTP: NO** **IARC: NO**
ADDITIONAL CARCINOGENICITY INFORMATION:
NONE

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
Aromatic hydrocarbon solvent	**64742-95-6**	**none**	**none**	**none**	**1-3**

SECTION 3 NOTES: NO TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372 ARE PRESENT.
Note: Ingredients listed without percentages, the percentages are considered a trade secret. Specific chemical identity of the remaining components has been withheld as a trade secret or are below reportable levels.

SECTION 4: FIRST AID MEASURES

EYES:
IMMEDIATELTY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST FIFTEEN MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.
SKIN:
FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATLEY. GET MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.
INGESTION:
RINSE MOUT. GET MEDICAL ATTENTION IF SYMPTOMS OCCUR.
INHALATION:
REMOVE VICTIM TO FRESH AIR. IF EFFECTS DEVELOP OR PERSIST.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) **UPPER:** not available **LOWER:** not available
FLASH POINT: 491F
METHOD USED:
ESTIMATED
EXTINGUISHING MEDIA:
FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:
TOXIC FUMES MAY BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTERS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN.

SECTION 6: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. RINSE AREA WITH WATER.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES. OBSERVE GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.
OTHER PRECAUTIONS:
MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT. STORE AWAY FROM INCOMPATIBLE MATERIALS.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
NONE REQUIRED UNDER NORMAL CONDITIONS OF USE. NIOSH APPROVED AIR-SUPPLIED RESPIRATOR DURING THE CLEANING, HIGH TEMPERATURE PROCESSING OR WHEN THERMAL DECOMPOSITION IS SUSPECTED.
VENTILATION:
AVOID BREATIHING VAPORS. VENTILLATION MUST BE SUFFICIENT TO CONTROL VAPORS
PROTECTIVE GLOVES:
IMPERVIOUS GLOVES – NEOPRENE OR RUBBER
EYE PROTECTION:
SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
CLEAN BODY COVERING CLOTHING AS WELL AS APRON, FOOTWEAR EQUIPMENT SHOULD BE USED AS DEEMED NECESSARY TO AVOID CONTACT WITH THE MATERIAL.
WORK HYGIENIC PRACTICES:
OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SEE SECTION THREE FOR OCCPATIONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: low viscosity liquid – milky white color – CITRIS ODOR
BOILING POINT OR RANGE: N/A

VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.01 (8.43 POUNDS PER GALLON)
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: emulsifiable

Odor Threshhold: N/A
pH: N/A
Melting point/freezing point: N/A
Vapor Pressure: N/A
Auto Ignition Temperature: N/A
Partition Coefficient: n-octanol/water: N/A
Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY:
STABLE
CONDITIONS TO AVOID (STABILITY):
AVOID TEMPERATURES ABOVE THE LISTED FLASH POINT AND CONTACT WITH OPEN FLAMES. Protect from freezing.
INCOMPATIBILITY (MATERIAL TO AVOID):
AVOID CONTACT WITH STRONG OXIDIZING AGENTS OR MATERIALS.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
CARBON MONOXIDE, CARBON DIOXIDE AND OTHER POTENTIAL COMPOUNDS.
HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Ingestion
Expected to be a low ingestion hazard.
Inhalation
Prolonged inhalation may be harmful.
Skin contact
No adverse effects due to skin contact are expected.
Eye contact
Direct contact with eyes may cause temporary irritation.
Symptoms related to the physical, chemical and toxicological characteristics
Direct contact with eyes may cause temporary irritation.

Information on toxicological effects
Acute toxicity
Not available.
Skin corrosion/irritation
Prolonged skin contact may cause temporary irritation.
Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitization
Respiratory sensitization
Not available.
Skin sensitization
This product is not expected to cause skin sensitization.
Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity
Not available.
Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure
Not classified.
Specific target organ toxicity - repeated exposure
Not classified.
Aspiration hazard
Not available.
Chronic effects

Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability
No data is available on the degradability of this product.
Bioaccumulative potential
No data available.
Mobility in soil
No data available.
Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:
Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local disposal regulations
Dispose in accordance with all applicable regulations.
Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport Information

DOT: Not Regulated

IMO/IMDG: Not Regulated

SECTION 15: REGULATORY INFORMATION

Regulatory information:

US federal regulations
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.
SARA 304 Emergency release notification
Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance
No
SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)
Not regulated.
Other federal regulations
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 (SDWA)
Not regulated.

US state regulations
US. Massachusetts RTK - Substance List
Not regulated.
US. New Jersey Worker and Community Right-to-Know Act
Not regulated.
US. Pennsylvania RTK - Hazardous Substances
Not regulated.
US. Rhode Island RTK
Not regulated.
US. California Proposition 65

No Proposition 65 Carcinogens exist in this product, No Proposition 65 Reproductive Toxins exist in this product.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available
See Section 1 for date of preparation

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **AG903SLx PART B**
PRODUCT CODES: **903SLx B**

MANUFACTURER: **ArmorGarage LLC**
STREET ADDRESS: **1260 North Avenue**
CITY, STATE, ZIP: **Plainfield, NJ 07062**

INFORMATION PHONE: **866-532-39798**
EMERGENCY PHONE: **Chemtrec 800-424-9300**

FAX PHONE: **(973) 453-8114**

PREPARED BY: **ArmorGarage LLC**

DATE REVISED: **5/4/24**

Chemical Name or Class: MDI isocyanate

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: **Acute toxicity, inhalation Category 4, Skin corrosion/irritation Category 2, Serious eye damage/eye irritation Category 2A, Sensitization, respiratory Category 1, Sensitization, skin Category 1, Carcinogenicity Category 2, Specific target organ toxicity, single exposure Category 3 (Respiratory tract irritation), Specific target organ toxicity, repeated exposure Category 2**

GHS Label Elements and Precautionary Statements:
Label Elements: Health Hazard Exclamation Mark

Hazard Statements:
Warning: Harmful if inhaled.
Warning: Causes skin irritation
Warning: Causes serious eye irritation
Danger: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Warning: May cause an allergic skin reaction.
Warning: Suspected of causing cancer.
Warning: May cause respiratory irritation.
Warning: May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray
P284 Wear respiratory protection.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P271 Use only outdoors or in a well-ventilated area.
P260 Do not breathe dust/fume/gas/mist/vapours/spray

Response
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352 IF ON SKIN: wash with plenty of soap and water.
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
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.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P342 + P311 IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P314 Get medical advice/attention if you feel unwell.

Storage:
P405 Store locked up.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal:
P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

HMIS HAZARD CLASSIFICATION
HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 1 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS
EYES:
MAY CAUSE IRRITATION.
SKIN:
MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE. SKIN CONTACT MAY CAUSE SENSITIZATION.
INGESTION:
THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY. Slightly hazardous.
INHALATION:
EXPOSURE MAY INCLUDE IRRITATION TO THE NOSE, THROAT AND LUNGS AND RESOIRATORY SYSTEM, POSSIBLY COMBINED WITH DRYNESS OF THE THROAT OR CHEST AND DIFFICULTY IN BREATHING. SYMPTOMS MAY BE DELAYED. A REACTIVE RESPONSE TO MDI MAY DEVELOP IN SENTITIZED PRESONS.
HEALTH HAZARDS (ACUTE AND CHRONIC):
THERE ARE REPORTS THAT CHRONIC EXPOSURE MAY RESULT IN PERMANENT DECREASE IN LUNG FUNCTION. SINGLE OR REPEATED SKIN CONTACT OR INHALATION MAY CAUSE SENSITIZATION OR ALLERGIC REACTION. PERSONS WITH ASTHMATIC-TYPE CONDITIONS, CHRONIC BRONCHITIS, OTHER CHRONIC RESPIRATORY DISEASES OR RECURRENT SKIN ECXEMA OR SENSITIZATION SHOULD BE EXCLUDED FROM CONTACT TO MATERIALS OR WORKING WITH THIS PRODUCTS.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.
CARCINOGENICITY
OSHA: NO NTP: NO IARC: yes
Component Methylenediphenyldiisocyanate, isomers and homologues: IARC group 3, Component Diphenylmethane 4,4'-diisocyanate: IARC group 3

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
Methylenediphenyldiisocyanate,	**26447-40-5**	**none**	**none**	**none**	**10-30**
Diphenylmethane Diisocyanate	**9016-87-9**	**NONE**	**NONE**	**NONE**	**30-60**
*** Diphenylmethane 4,4'diisocyanate**	**101-68-8**	**0.2 mg/m3**	**0.05mg/m3**	**0.05 mg/m3**	**30-60**

SECTION 3 NOTES:
*****toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.*****
Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

EYES:
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
SKIN:
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Take off contaminated clothing and wash before reuse.
INGESTION:
Rinse mouth. Get medical attention if symptoms occur.
INHALATION:
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash. May cause allergic respiratory reaction. May cause redness and pain. Prolonged exposure may cause chronic effects. Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) **UPPER: not available** **LOWER: not available**

FLASH POINT: 390F

METHOD USED:

ESTIMATED

EXTINGUISHING MEDIA:

FOAM, CO2, DRY CHEMICAL, USE WATER SPRAY, FOG OR FOAM,; DO NOT USE WATER JET.

SPECIAL FIRE FIGHTING PROCEDURES:

USE FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. CONTAINERS MAY BURST UNDER INTENSE HEAT. IF WATER IS USED, VERY LARGE AMOUNTS ARE REQUIRED. REACTION BETWEEN WATER AND ISOCYANATE MAY BE VIGOROUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

DURING FIRE, GASSES HAZARDOUS TO HEALTH MAY BE FORMED..

ADDITIONAL CARCINOGENICITY INFORMATION:

THIS PRODUCT MAY CONTAIN INGREDIENTS SUSPECTED OF CAUSING CANCER.

SECTION 6: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. **Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

OTHER PRECAUTIONS:

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED PRESSURE AIR-SUPPLIED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. CARTRIDGE TYPE RESPIRATORS ARE NOT APPROVED FOR PROTECTION AGAINST DIISOCYANATES.

VENTILATION:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERINGS AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

OCCUPATIONAL EXPOSURE LIMITS

Occupational exposure limits

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

Components	Type	Value
4,4'-methylenediphenyl Diisocyanate (CAS	Ceiling	0.2 mg/m3 0.2 ppm

101-68-8)

Diphenylmethane Diisocyanate [isomers (CAS 9016-87-9)	Ceiling	0.2 mg/m3 0.2 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)	TWA	0.005 ppm
Diphenylmethane Diisocyanate [isomers (CAS 9016-87-9)	TWA	0.005 ppm

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)	Ceiling	0.2 mg/m3
		0.02 ppm
	TWA	0.05 mg/m3
		0.005 ppm
Diphenylmethane Diisocyanate [isomers (CAS 9016-87-9)	Ceiling	0.2 mg/m3
		0.02 ppm
	TWA	0.05 mg/m3
		0.005 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: MEDIUM VISCOSITY LIQUID – amber brown - must odor
BOILING POINT OR RANGE: 406F ESTIMATEDA
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.24
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: N/A

Odor Threshhold: N/A
pH: N/A
Melting point/freezing point: N/A
Vapor Pressure: N/A
Auto Ignition Temperature: N/A
Partition Coefficient: n-octanol/water: N/A
Decomposition Temperature: N/A

SECTION 10: STABILITY AND REACTIVITY

STABILITY:
STABLE AT ROOM TEMPERATURE
CONDITIONS TO AVOID (STABILITY):
AVOID EXCESSIVE HEAT, OPEN FLAMES. DUE TO REACTION WITH WATER, A HAZARDOUS BUILDUP OF PRESSURE COULD RESULT.
INCOMPATIBILITY (MATERIAL TO AVOID):
CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS, ALCOHOLS, BASES AND WATER.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
CO, CO2, NITROGEN OXIDES, HYDROCARBONS AND HCN
HAZARDOUS POLYMERIZATION:
POLYMERIZATION MAY OCCUR AT ELEVATED TEMPERATURES IN THE PRESENCE OF ALKALIES, TERTIARY AMINES AND METAL COMPOUNDS.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Ingestion Expected to be a low ingestion hazard.
Inhalation Harmful if inhaled. May cause damage to organs by inhalation. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin contact Causes skin irritation. May cause an allergic skin reaction.
Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

Information on toxicological effects
Acute toxicity Harmful if inhaled. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.
Skin corrosion/irritation
Causes skin irritation.
Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Respiratory sensitization
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitization
May cause an allergic skin reaction.
Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic

Carcinogenicity Suspected of causing cancer.
Rats have been exposed for two years to a respirable aerosol of polymeric MDI which resulted in chronic pulmonary irritation at high concentrations. Only at the top level (6 mg/m3), there was a significant incidence of a benign tumour of the lung (adenoma) and one malignant tumour (adenocarcinoma). There were no lung tumours at 1 mg/m3 and no effects at 0.2 mg/m3. Overall, the tumour incidence, both benign and malignant, and the number of animals with the tumours were not different from controls. The increased incidence of lung tumours is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung, which occurred throughout the study. In the absence of prolonged exposure to high concentrations leading to chronic irritation and lung damage, it is highly unlikely that tumour formation will occur.

IARC Monographs. Overall Evaluation of Carcinogenicity
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) - Not classifiable as to carcinogenicity to humans.

Diphenylmethane Diisocyanate [- Not classifiable as to carcinogenicity to humans.
(CAS 9016-87-9)

Methylenediphenyl Diisocyanate (mdi) (CAS 26447-40-5) - Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure
Respiratory tract irritation.
Specific target organ toxicity - repeated exposure
May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard
Not available.
Chronic effects
Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

Acute toxicity:
Component Diphenylmethanediisocyanate:
LD50 Dermal Rabbit - Male, Female >9400 mg/kg
LD50 Oral Rat - Male >10000 mg/kg
LC50 InhalationDusts and mists: Rat - Male, Female = 310 mg/m3 (4 hour exposure)

Component Diphenylmethane 4,4'- diisocyanate
LD50 Dermal Rabbit - Male, Female >9400 mg/kg
LD50 Dermal Rabbit >5000 mg/kg
LD50 Rabbit – male = 100mg/kg
Intraperitoneal:
LD50 Oral Rat - Male >10000 mg/kg and LD50 Oral Rat - Male, Female >2000 mg/kg
LC50 Inhalation Dusts and mists: Rat - Male, Female >2.24 mg/L (1 hour exposure)

Medical conditions aggravated by overexposure
Pre-existing respiratory and skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Mobility in soil
No data available.

Environmental effects:
By comparison with an analogous product, the following values are anticipated. The measured ecotoxicity is that of the hydrolised product, generally under conditions maximizing production of soluble species. Even so, the observed ecotoxicity is low/very low. A pond study showed gross contamination caused no significant toxic effects on a wide variety of flora in all trophic levels (including fish), no detectable diaminodiphenylmethane (MDA), and no evidence of bioaccumulation of MDI or MDA.

Aquatic ecotoxicity:
Component Diphenylmethane 4,4'-diisocyanate: OECD 202 *Daphnia* sp Acute Immobilisation Test, Acute EC50 >1000 mg/L, Fresh water (Daphnia), 24 hours Static.
OECD 209 Activated Sludge, Respiration Inhibition Test, Acute EC50 >100 mg/L Fresh water (Bacteria) 3 hours Static.
OECD 203 Fish, Acute Toxicity Test, Acute LC50 >1000 mg/L (Fish) 96 hours Static.
OECD 211 *Daphnia Magna* Reproduction Test, Chronic NOEC >10 mg/L Fresh water (Daphnia) 21 days Semistatic

Biodegradability:
Component Diphenylmethane 4,4'-diisocyanate: OECD 302C Inherent Biodegradability Modified MITI Test (II), Result: -0% - not readily biodegradable – 28 days, Dose: 30 mg/L.
BCF = 200, high potential.

Other Ecological Information:
BCF = 200, high potential.
Mobility: By considering the production and use of the substance, it is unlikely that significant environmental exposure in the air or water will arise. Immiscible with water, but will react with water to produce inert and non-biodegradable solids. Conversion to soluble products, including diamino-diphenylmethane (MDA) is very low under the optimal laboratory conditions of good dispersion and low concentration. In air, the predominant degradation process is predicted to be relatively rapid OH radical attack, by calculation and by analogy with related diisocyanates.
Other adverse effects :
No known significant effects or critical hazards.

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:
Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations Dispose in accordance with all applicable regulations.
Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

SECTION 14: Transport Information

DOT: Not Regulated

IMO/IMDG: Not Regulated

SECTION 15: REGULATORY INFORMATION

US federal regulations
This product is a "Hazardous 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.

CERCLA Hazardous Substance List (40 CFR 302.4)
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) LISTED
Diphenylmethane Diisocyanate [(CAS 9016-87-9) LISTED
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.
SARA 304 Emergency release notification
Not regulated.
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) % 1.0
Diphenylmethane Diisocyanate (CAS 9016-87-9) % 1.0

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) Listed.
Diphenylmethane Diisocyanate (CAS 9016-87-9) Listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No
SARA 302 Extremely hazardous substance
No
SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
4,4'-methylenediphenyl Diisocyanate	101-68-8	30 - 60
Diphenylmethane Diisocyanate [	9016-87-9	30 - 60

Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)
Diphenylmethane Diisocyanate (CAS 9016-87-9)

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

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
US. Massachusetts RTK - Substance List
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)
Diphenylmethane Diisocyanate (CAS 9016-87-9)
US. New Jersey Worker and Community Right-to-Know Act
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8) 500 lbs
Diphenylmethane Diisocyanate (CAS 9016-87-9) 500 lbs
US. Pennsylvania RTK - Hazardous Substances
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)
Diphenylmethane Diisocyanate (CAS 9016-87-9)
US. Rhode Island RTK
4,4'-methylenediphenyl Diisocyanate (CAS 101-68-8)
Diphenylmethane Diisocyanate (CAS 9016-87-9)
US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories
Country(s) or region Inventory name On inventory (yes/no)*
Australia Australian Inventory of Chemical Substances (AICS) Yes
Canada Domestic Substances List (DSL) Yes

Canada Non-Domestic Substances List (NDSL) No
China Inventory of Existing Chemical Substances in China (IECSC) Yes
Europe European Inventory of Existing Commercial Chemical Substances (EINECS) Yes
Europe European List of Notified Chemical Substances (ELINCS) No
Japan Inventory of Existing and New Chemical Substances (ENCS) Yes
Korea Existing Chemicals List (ECL) Yes
New Zealand New Zealand Inventory Yes
Philippines Philippine Inventory of Chemicals and Chemical Substances (PICCS) Yes
United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes
*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the overning country(s).

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available
See Section 1 for date of preparation

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **AG903SL part C**
PRODUCT CODES: **903SLx C**

MANUFACTURER: ArmorGarage LLC.
STREET ADDRESS: 1260 North Avenue
CITY, STATE, ZIP: Plainfield, NJ 07062

INFORMATION PHONE: (866)532-3979
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: (973) 453-8114

PREPARED BY: ArmorGarage LLC

DATE REVISED: 5/4/24

Chemical Name or Class: sand/calcium hydroxide mix

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Skin Corrosion/irritation category 2, Serious eye damage/eye irritation Category 2A, Carcinogenicity category 1A,

GHS Label Elements and Precautionary Statements:
Label Elements: Health hazard, Exclamation Mark

Hazard Statements:
DANGER: May cause cancer
WARNNG: Causes skin irritation
WARNING: Causes serious eye irritation

Precautionary statements:
P102 Keep out of reach of children.
P103 Read label before use
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
Response:
P302 + P352 IF ON SKIN: wash with plenty of soap and water.
P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
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.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
Storage:
P405 Store locked up
Disposal:
P501 Dispose of contents/container to a waste disposal facility in accordance with local, state, federal or international laws

HMIS HAZARD CLASSIFICATION
HEALTH: 3 **FLAMMABILITY: 0** **REACTIVITY: 0** **PERSONAL PROTECTIVE EQUIPMENT: E**

POTENTIAL HEALTH EFFECTS
EYES:
MAY CAUSE REDDENING OF THE EYES OR EYE IRRITATION.

SKIN:
MAY CAUSE SKIN IRRITATION
INGESTION:
NONE KNOWN
INHALATION:
PROLONGED EXPOSURE TO RESPIRABLE CRYSTALLINE QUARTZ MAY CAUSE DELAYED LUNG INJURY (SILICOSIS). ACUTE OR RAPIDLY DEVELOPING SILICOSIS MAY OCCUR IN A SHORT PERIOD OF TIME IN HEAVY EXPOSURE IN SOME APPLICATIONS SUCH AS SAND BLASTING.
HEALTH HAZARDS (ACUTE AND CHRONIC):
MAY CAUSE DELAYED SILICOSIS OR RAPID SILICOSIS IN SOME OCCUPATIONS SUCH AS SANDBLASTING, SILICOSIS IS A FORM OF A DISABLING PULMONARY FIBROSIS WHICH CAN BE PROGRESSIVE AND COULD LEAD TO DEATH. INHALATION MAY LEAD TO LUNG SCARRING AND MASSIVE FIBROSIS WHICH COULD BE ACCOMPANIED BY RIGHT HEART ENLARGEMENT, HEART FAILURE, OR PULMONARY FAILURE, SMOKING AGGRAVATES THE EFFECTS OF EXPOSURE.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS CAN BE AGGRAVATED BY EXPOSURE
CARCINOGENICITY
OSHA: NO NTP: YES IARC: YES

ADDITIONAL CARCINOGENICITY INFORMATION:
IARC HAS DETERMINED THAT CRYSTALLINE SILICA INHALED IN THE FORM OF QUARTZ IS CARCINOGENIC TO HUMANS (GROUP 1- CARCINOGENIC TO HUMANS). THE NTP CLASSIFIES RESPIRABLE CRYSTALLINE SILICA AS REASONABLY ANTICIPATED TO BE A CARCINOGEN.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
*SILICON DIOXIDE	14808-60-7	0.05 mg/m3	0.025 mg/m3	0.05 mg/m3	60-100
Calcium Hydroxide	1305-62-0	5mg/m3	5mg/m3	NONE	1-5

"*" indicates toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.* **FOLLOW OSHA HAZARD COMMUNICATION RULE 29CFR SECTIONS 1910.1200, 1915.99, 1917.28, 1918.9, 1926.59, AND STATE AND LOCAL COMMUNITY RIGHT TO KNOW LAWS. (NOTE on Cement)Trace amounts of naturally occurring chemicals might be detected during chemical analysis. Trace constituents may include insoluble residue, some of which may be free crystalline silica, calcium oxide (Also known as lime or quick lime), magnesium oxide, potassium sulfate, sodium sulfate, chromium compounds, and nickel compounds.**
Note: Ingredients listed without percentages, the percentages are considered a trade secret. Other components below reportable levels < 30%

SECTION 4: FIRST AID MEASURES

EYES:
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
SKIN:
Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
INGESTION:
Rinse mouth. Get medical attention if symptoms occur.
INHALATION:
Move to fresh air. Call a physician if symptoms develop or persist.
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:
Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) **UPPER: not available** **LOWER: not available**
FLASH POINT^0 F: N/A
METHOD USED:
FOAM, CO2, DRY CHEMICAL, WATER FOG
EXTINGUISHING MEDIA:
Water fog, Foam, Dry Chemical, Carbon dioxide
SPECIAL FIRE FIGHTING PROCEDURES:
CRYSTALLINE SILICA BLEND IS NEITHER A FIRE NOR AN EXPLOSION HAZARD. DURING FIRE, GASSES HAZARDOUS TO HEALTH MAY BE FORMED.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
NONE KNOWN.

SECTION 6: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WEAR RESPIRATOR AND USE DUSTLESS HANDLING EQUIPMENT TO CLEAN UP LARGE SPILLS, PLACE IN SUITABLE CONTAINERS FOR DISPOSAL. FLUSH AREA WITH WATER AFTER PICKUP OF MATERIAL.AVOID DISHCARGE INTO DRAINS, WATER COURSES OR ONTO THE GROUND.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
STORE IN COOL DRY PLACE. PROPERLY LABEL ALL CONTAINERS AND RESEAL ALL PARTIALLY USED CONTAINERS. AVOID CREATING ANY DUST WHEN WORKING WITH THIS MATERIAL.
OTHER PRECAUTIONS:
AVOID BREATHING DUST GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. PROVIDE TRAINING FOR YOUR EMPLOYEES RELATING TO OCCUPATIONAL EXPOSURE TO QUARTZ DUST. SEE ASTM STANDARD E1132-86 STANDARD PRACTICE FOR HEALTH REQUIREMENTS RELATING TO EXPOSURE TO QUARTZ DUST. IF BETTER THAN 500 X PEL USE A SELF CONTAINED BREATHING APPARATUS. IF SANDBLASTING, USE ANY TYPE CE SUPPLIED AIR RESPIRATOR WITH FULL FACE PIECE OR HOOD. STORE LOCKED UP.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:
USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO QUARTZ DUST. PROVIDE SUFFICIENT EXHAUST TO KEEP EXPOSURE LEVELS BELOW THE ACGIH PEL.
VENTILATION:
USE EXHAUST SUFFICIENT TO MAINTAIN AIRBORNE PARTICULATES BELOW THE ACGIH PEL LIMITS ESTABLISHED.
PROTECTIVE GLOVES:
WEAR CHEMICAL RESISTANT GLOVES.
EYE PROTECTION:
SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
PROVIDE ANY EQUIPMENT NECESSARY TO PREVENT THE INHALATION OF QUARTZ DUST.
WORK HYGIENIC PRACTICES:
OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

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

Components	Type	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.

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

Components	Type	Value	Form
Crystalline SiO2 (Quartz) (CAS 14808-60-7) .	TWA	0.3 mg/m3 2.4 millions of particle	Total dust. respirable

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	TWA	5 mg/m3	
Crystalline SiO2 (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Calcium Hydroxide (CAS 1305-62-0)	TWA	5 mg/m3	
Crystalline SiO2 (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Biological limit values
No biological exposure limits noted for the ingredient(s).
Exposure guidelines

Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: **SAND GRANULAR CRUSHED OR GROUND - NO ODOR**
BOILING POINT OR RANGE ^{0} F: **N/A**
VAPOR DENSITY (AIR = 1): **N/A**
SPECIFIC GRAVITY (H2O = 1): **2.24**
EVAPORATION RATE: **N/A**
SOLUBILITY IN WATER: **INSOLUBLE IN WATER**

Odor Threshhold: **N/A**
pH: **N/A**
Melting point/freezing point: **N/A**
Vapor Pressure: **N/A**
Auto Ignition Temperature: **N/A**
Partition Coefficient: n-octanol/water: **N/A**
Decomposition Temperature: **N/A**

SECTION 10: STABILITY AND REACTIVITY

STABILITY:
STABLE
CONDITIONS TO AVOID (STABILITY):
CONTACT WITH POWERFUL OXIDIZING AGENTS SUCH AS FLUORINE, CHLORINE, TRIFLUORIDE, MANGANESE TRIOXIDE, OXYGEN TRIFLUORIDE
INCOMPATIBILITY (MATERIAL TO AVOID):
CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS- SEE CONDITIONS TO AVOID
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
SILICA WILL DISSOLVE IN HYDROCHLORIC ACID TO FORM A CORROSIVE GAS- SILICON TETRAFLUORIDE
HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Ingestion
Expected to be a low ingestion hazard.
Inhalation
Prolonged inhalation may be harmful.
Skin contact
Causes skin irritation.
Eye contact
Causes serious eye irritation.
Symptoms related to the physical, chemical and toxicological characteristics
Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects
Acute toxicity
Not available.
Skin corrosion/irritation
Causes skin irritation.
Serious eye damage/eye irritation
Causes serious eye irritation.

Respiratory or skin sensitization
Respiratory sensitization
Not available.
Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) May cause cancer. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

IARC Monographs. Overall Evaluation of Carcinogenicity
Crystalline SiO2 (Quartz) (CAS 14808-60-7) Carcinogenic to humans.
US. National Toxicology Program (NTP) Report on Carcinogens
Crystalline SiO2 (Quartz) (CAS 14808-60-7) Known To Be Human Carcinogen.
Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure
Not classified.
Specific target organ toxicity - repeated exposure
Not classified.
Aspiration hazard
Not available.
Chronic effects
Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.
Component data:
Component Silicon Dioxide: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.
Component calcium Hydroxide CAS# 1305-62-0: Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

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

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:
DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

SECTION 14: Transport Information

DOT: Not Regulated

IMO/IMDG **Not regulated**

SECTION 15: REGULATORY INFORMATION

US federal regulations
This product is a "Hazardous 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.
CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.
SARA 304 Emergency release notification
Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)
Hazard categories

Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
No

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

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 (SDWA)
Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Calcium Hydroxide (CAS 1305-62-0)
Crystalline SiO2 (Quartz) (CAS 14808-60-7)

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
Calcium Hydroxide (CAS 1305-62-0)
Crystalline SiO2 (Quartz) (CAS 14808-60-7)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65
WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
Crystalline SiO2 (Quartz) (CAS 14808-60-7) Listed: October 1, 1988

International Inventories

Country(s) or region Inventory name On inventory (yes/no)*
TSCA Status: All components Listed or exempt
Australia Australian Inventory of Chemical Substances (AICS) Yes
Canada Domestic Substances List (DSL) Yes
Canada Non-Domestic Substances List (NDSL) No
China Inventory of Existing Chemical Substances in China (IECSC) Yes
Europe European Inventory of Existing Commercial Chemical Substances (EINECS) Yes
Europe European List of Notified Chemical Substances (ELINCS) No
Japan Inventory of Existing and New Chemical Substances (ENCS) Yes
Korea Existing Chemicals List (ECL) Yes
New Zealand New Zealand Inventory Yes
Philippines Philippine Inventory of Chemicals and Chemical Substances (PICCS) Yes

SECTION 16: OTHER INFORMATION

DISCLAIMER: The information Contained herein is based on the data available and is believed to be accurate, However, the manufacturer makes no warranty expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. Accordingly, we assume no responsibility for injury from the use of this product.

N/A = Not Available
See Section 1 for date of preparation