

SAFETY DATA SHEET

PRODUCT CODE: 114-2x

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ARM114-2x PART A
PRODUCT CODES: 114-2x A

MANUFACTURER: Armorpoxy Inc.
STREET ADDRESS: 1260 North Avenue
CITY, STATE, ZIP: Plainfield, NJ 07062

INFORMATION PHONE: 888-755-7361
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: (973) 453-8114

PREPARED BY: Armorpoxy Inc

DATE REVISED: 6/16/16

Chemical Name or Class: Epoxy mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: Serious eye damage/Eye irritation category 2A, Skin irritation category 2, skin sensitizer category 1, Long term hazards to aquatic environment Category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Aquatic Toxicity



Hazard Statements:

Warning: Causes serious eye irritation.

Warning: Causes skin irritation

Warning: May cause an allergic skin reaction

Toxic to aquatic life with long lasting effects

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.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

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.

P391 Collect spillage.

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

Other Non-classifiable potential hazards

Carcinogenicity category 2

HMIS HAZARD CLASSIFICATION

HEALTH: 1 **FLAMMABILITY: 1** **REACTIVITY: 0** **PERSONAL PROTECTIVE EQUIPMENT: B**

POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE IRRITATION BUT NO CORNEAL INJURY IS LIKELY.

SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE.

INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES..

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATION OF VAPOR. EYES: INJURY IF UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

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MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

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. Titanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF BISPENOL A	25068-38-6	NONE	NONE	NONE	60-100
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	10-30
Talc	14807-96-6	20mg/m3	20mg/m3	20mg/m3	3-7
*SILICON DIOXIDE	14808-60-7	0.05 mg/m3	0.025 mg/m3	0.05 mg/m3	<1.0%
Titanium Dioxide	13463-67-7	10mg/m3	10mg/m3	5mg/m3	1-5
Mica	12001-26-2	20mppcf	3mg/m3	NONE	3-7
Precipitated Silica	112926-00-8	NONE	80mg/m3	NONE	1-5
EPICHLORHYDRIN-POLYGLYCOL REACTION PRODUCTS	26142-30-3	NONE	NONE	NONE	1-5
Siloxanes and silicones, di-me reactions products with silica (non-hazardous)	67762-90-7	none	none	none	0.1-1
siloxanes and silicones, di-methyl (non-hazardous)	63148-62-9	none	none	none	0.1-1

SECTION 3 NOTES: *Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372.

Note: Ingredients listed without percentages, the percentages are considered a trade secret.

SECTION 4: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, AND OTHERWISE DO NOT INDUCE VOMITING. IN EITHER CASE CONSULT WITH A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 5: FIRE-FIGHTING MEASURES

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

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. 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:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBENT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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STORE IN A COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CAN NOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134. GENERAL EXHAUST IS USUALLY SUFFICIENT IN LIEU OF NIOSH RESPIRATOR

VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS

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.

SEE SECTION THREE FOR OCCPATIONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Medium Viscosity liquid – white/tan in color

BOILING POINT OR RANGE: 200 TO 279F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H₂O = 1): 1.2

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: 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 EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO₂, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Moderate sensitizer, slight eye irritant, moderate skin irritant, Oral LD50 >5000 mg/kg (rat), Dermal LD50 >6000 mg/kg (rabbit)

Component CAS# 68609-97-2: possible sensitizer, eye and skin irritant, Oral LD50 >10000 mg/kg (rat), Inhalation LD50 – no microscopic changes

Component Titanium Dioxide: Inhalation 4 h LC50 > 6.82 mg/l; Oral LD50 > 5000 mg/kg, rat; In February 2006, IARC listed titanium dioxide as possibly carcinogenic to humans Group 2B.

Component CAS# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen

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Component Silicon dioxide: Inhalation and retention of respirable crystalline silica can cause silicosis in several forms, chronic, accelerated or acute. Acute silicosis can occur with exposures to high concentrations of respirable crystalline silica over a very short time period, the symptoms of acute silicosis include progressive shortness of breath, fever, cough, and weight loss. Acute silicosis can be fatal. IARC concluded that there was sufficient evidence in humans for the carcinogenicity of crystalline silica in the form of quartz (Group 1). Exposure to respirable crystalline silica can also be associated with autoimmune disease, tuberculosis, kidney damage, non-malignant respiratory disease. For further information, the NIOSH Hazard Review- Occupational Effects of Occupational Exposure to Respirable Crystalline Silica published in April of 2002 should be reviewed.

Component CAS# 112926-00-8: LD50 (rat >5000 mg/kg, LD50 dermal (rat) >2000 mg/kg

Component CAS# 26142-30-6: SKIN: The LD50 for skin absorption in rats is >2000 mg/kg. INGESTION: The oral LD50 for male rats is >4000 mg/kg.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Biodegradability (Modified Sturm Method) 12%, Fish toxicity: Rainbow trout (96hr) LC50 1.5mg/l, Zebra Fish (96hr) LC50 2.4 mg/l. Invertebrate Toxicity: Daphnia Toxicity (24hr) EC 50 3.6 mg/l

Component Titanium Dioxide: Pimephales promelas (fathead minnow) < 1000 mg/l @ 96h LC50; Pseudokirchneriella subcapitata (green algae) 61 mg/l @ 72h EC50; Daphnia magna (water flea) > 1000 mg/l @ 48h EC50

Component CAS# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component Silicon Dioxide: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component CAS# 112926-00-8: Ecotoxicity: EC50 (fish) .10000 mg/l (daphnia >10000 mg/l

Component CAS# 26142-30-6: DEGRADATION & PERSISTENCE: Based on the stringent test guide lines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. Biodegradation reached in CO2 Evolution Test (Modified Sturm Test, OECD Test No. 301B) after 28 day: 14-21%.. ECOTOXICITY: Material is practically non toxic to fish on an acute basis

(LC50 greater than 100 mg/L). Material is practically non-toxic to aquatic invertebrates on an acute basis (LC50 greater than 100 mg/L).

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:.

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

SECTION 14: Transport Information

DOT: Not Regulated

IMO/IMDG: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS Bisphenol A Diglycidyl Ether Polymer), 9, PGIII, Marine Pollutant

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 25068-38-6: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, WHMIS class D2B; Is on the New Jersey Right to Know list.; is on the PA Right to Know List;

Component CAS# 68609-97-2: Considered a hazardous chemical; is on the TSCA list; is on the DSL Canada, Is on the New Jersey Right to Know list; is on the PA Right to Know List.

Component CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component Titanium Dioxide: Contains Proposition 65 Chemicals, is on the PA Hazardous substance list, is on the NJ right to know Regulated chemical List.

Titanium Dioxide is on inventory or in compliance with EINECS, TSCA, AICS, DSL, ENCS (JP), KECI (KR), PICCS (PH) and INV (CN).

Component Silicon Dioxide: risk phrases: R 48/20 Harmful – Danger of serious damage to health by prolonged exposure through inhalation. Safety Phrases: S 22 – Do not breathe dust and S 38 – In case of insufficient ventilation, wear suitable respiratory equipment.

Silicon Dioxide is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance. Component Crystalline Silica (Silicon Dioxide) is on the Canada DSL – WHMIS Classification D2A. Crystalline Silica is on the Australian Inventory of Chemicals Substances list, Japan Ministry of International Trade and Industry list, Korea Existing Chemicals Inventory with registry number 9212-5667 and the Philippines Inventory of Chemicals and Chemical Substances list.

Component CAS# 12001-26-2: On TSCA list. DSL Canada Listed and is considered an uncontrolled product. Although not on the California Proposition 65 list, it may contain ppm quantities of materials regulated under California's safe drinking water and toxic enforcement act of 1986. Crystalline Silica (Silicon Dioxide) is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component CAS# 112926-00-8: Is not classified as dangerous. National Chemical Inventory listings include – AICS, DSL, IECSC, EINECS, ENCS, KECI, NZLOC, PICCS, TSCA,

Component CAS# 26142-30-6: Component is on TSCA, Canada DSL, EINECS, AICS, ENCS, PICCS and SEPA inventory lists.

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Component Siloxanes and silicones, di-me reactions products with silica: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

Component siloxanes and silicones, di-methyl: Included on TSCA, EINECS, MITI, ACOIN, and Canadian DSL inventory or lists.

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: ARM114-2x PART B
PRODUCT CODES: 114-2x B

MANUFACTURER: Armorpoxy Inc.
STREET ADDRESS: 1260 North Avenue
CITY, STATE, ZIP: Plainfield, NJ 07062

INFORMATION PHONE: 888-755-7361
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: (973) 453-8114

PREPARED BY: Armorpoxy Inc

DATE REVISED: 6/16/16

Chemical Name or Class: Polyamine mixture

SECTION 2: HAZARDS IDENTIFICATION**Hazard Overview**

GHS Classification: Acute toxicity inhalation category 4, Specific target organ toxicity repeated exposure category 2, **Acute oral toxicity category 4, Acute dermal toxicity category 4, Serious eye irritation/damage category 1, skin sensitizer category 1B, Skin corrosion/irritation category 1, Reproductive toxicity category 2, Acute hazard to aquatic environment category 2**

GHS Label Elements and Precautionary Statements: Exclamation Mark, Corrosion, Health Hazard, Aquatic Toxicity

**Hazard Statements:**

Warning: Harmful if inhaled.

Warning: May cause damage to organs through prolonged or repeated exposure (skin, central nervous system (CNS)).

Warning: Harmful if swallowed

Warning: Harmful in contact with skin

Danger: Causes serious eye damage

Warning: May cause an allergic skin reaction

Danger: Causes severe skin burns and eye damage

Warning: Suspected of damaging fertility or the unborn child.

Toxic to aquatic life

Precautionary statements:

P102 Keep out of reach of children.

P103 Read label before use

P271 Use only outdoors or in a well-ventilated area

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P264 Wash hands thoroughly after handling.

P270 Do not eat, drink or smoke when using this product

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves and clothing to prevent skin contact.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P273 Avoid release to the environment.

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.

P314 Get medical advice/attention if you feel unwell.

P301 + P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P302 + P352 IF ON SKIN: wash with plenty of soap and water

P361+P364 Take off immediately all 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.

P310 If in eyes, immediately call a POISON CENTER or doctor/physician.

P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P363 Wash contaminated clothing before reuse.

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P321 If skin irritation or burns develop, Call a doctor/physician .
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.

Other Non-classifiable potential hazards

Carcinogenicity category 2

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

WILL CAUSE BURNS TO EYES. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.

SKIN:

WILL CAUSE BURNS TO THE SKIN

INGESTION:

LIQUID CAN CAUSE SEVERE DAMAGE TO MUCOUS MEMBRANES IF SWALLOWED.

INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.

CARCINOGENICITY

OSHA: NO NTP: yes IARC: yes

ADDITIONAL CARCINOGENICITY INFORMATION:

contains carbon black - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B. 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

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
METHYLENEDI(CYCLOHEXYLAMINE)	1761-71-3	NONE	NONE	NONE	1-5
NONYL PHENOL	84852-15-3	NONE	NONE	NONE	15-40
ALIPHATIC POLYAMINE NJTSRN 05995500-	H2390U	NONE	NONE	NONE	10-30
N-AMINOETHYLPIPERAZINE	140-31-8	NONE	NONE	NONE	1-5
TETRAETHYLENE PENTAMINE	112-57-2	NONE	NONE	NONE	1-5
TOFA, REACTION PRODUCTS WITH TEPA	68953-36-6	NONE	NONE	NONE	7-13
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	7-13
Talc	14807-96-6	20mg/m3	20mg/m3	20mg/m3	5-10
*SILICON DIOXIDE	14808-60-7	0.05 mg/m3	0.025 mg/m3	0.05 mg/m3	<1.0%
Mica	12001-26-2	20mppcf	3mg/m3	NONE	5-10
Precipitated Silica	112926-00-8	NONE	80mg/m3	NONE	1-5
*CARBON	1333-86-4	3.5PPM	3.4PPM	NONE	<1.0%

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.

SECTION 4: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 5: FIRE-FIGHTING MEASURES

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

FLASH POINT: 200+F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTING. COOL 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 REMAINDER WITH CLAY OR OTHER ABSORBENT AND PLACE IN DISPOSAL CONTAINERS.

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 CONDITIONS OF 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS. FOR EMERGENCIES A SELF-CONTAINED BREATHING APPARATUS OR A FULL FACE RESPIRATOR IS RECOMMENDED.

VENTILATION:

AVOID BREATHING VAPORS. VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

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.

SEE SECTION THREE FOR OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Gray/Black LIQUID WITH AMINE ODOR

BOILING POINT OR RANGE: 401 TO 560F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H2O = 1): 1.1

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: NEGLIGIBLE

Odor Threshold: 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

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PRODUCT CODE: 114-2x

CONDITIONS TO AVOID (STABILITY):

AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO₂, NOX

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 14807-96-6: Carcinogenic effects – this component may contain crystalline silica dust can cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline Silica is also listed by the NTP as a known human carcinogen
Component Silicon dioxide: Inhalation and retention of respirable crystalline silica can cause silicosis in several forms, chronic, accelerated or acute. Acute silicosis can occur with exposures to high concentrations of respirable crystalline silica over a very short time period, the symptoms of acute silicosis include progressive shortness of breath, fever, cough, and weight loss. Acute silicosis can be fatal. IARC concluded that there was sufficient evidence in humans for the carcinogenicity of crystalline silica in the form of quartz (Group 1). Exposure to respirable crystalline silica can also be associated with autoimmune disease, tuberculosis, kidney damage, non-malignant respiratory disease. For further information, the NIOSH Hazard Review- Occupational Effects of Occupational Exposure to Respirable Crystalline Silica published in April of 2002 should be reviewed.

Component CAS# 112926-00-8: LD50 (rat >5000 mg/kg, LD50 dermal (rat) >2000 mg/kg

Component Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg

Component carbon: - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2B

Components METHYLENEDI(CYCLOHEXYLAMINE) CAS# 1761-71-3, NONYL PHENOL CAS# 25154-52-3, and ALIPHATIC POLYAMINE NJTSRN 05995500-H2390U: Ingestion : LD50 : > 1,620 mg/kg Species: Rat. Method : Estimated. Inhalation : LC50 (1 h) : > 20 mg/l Species Rat. Method : Estimated Skin : LD50 : > 1,000 mg/kg Species : Rabbit. Method : Estimated. Eye irritation/corrosion : Severe eye irritation. Acute dermal irritation/corrosion: Severe skin irritation. Corrosive to the skin of a rabbit. Sensitization : May cause sensitization by skin contact. The product or a component may be mutagenic, the data is inconclusive

Component CAS# 140-31-8: Draize test, rabbit, eye: 20 mg/24H Moderate; Draize test, rabbit, skin: 5 mg/24H Severe; Oral, rat: LD50 = 2140 uL/kg; Skin, rabbit: LD50 = 880 uL/kg; Carcinogenicity: Not listed by ACGIH, IARC, NTP, or CA Prop 65. May cause Sensitization by skin contact.

Component Nonyl Phenol: Median Lethal Dose Oral: LD50 0.58g/kg (rat) moderately toxic. Dermal LD50 2.14g/kg (rabbit) slightly toxic. Skin Draize Test, rabbit: 500 mg/m³ 24hr – corrosive. Eyes Draize test rabbit, 57.00/110 – extremely irritating. Component is a possible risk of impaired fertility.

Component CAS# 112-57-2: Ingestion LD50 > 1,230 mg/kg (rat)

Component CAS# 68953-36-6: Ingestion LD50 (rat) >2,000 mg/kg (estimated)

Component CAS# 68953-36-6 and CAS# 112-57-2: Skin LD50 (rabbit) 8,550 mg/kg. May cause eye irritation, skin irritation and may cause sensitization by contact

Component Benzyl Alcohol: Inhalation LC50 (4hr) >4178 mg/l (rat), Dermal LD50 2000 mg/kg (rabbit) Rats exposed to 800 mg/kg for thirteen weeks exhibited CNS depression and histopathological changes in the brain, thymus and skeletal muscles. The No observed Adverse effect level (NOAEL) was 400 mg/kg. No evidence of carcinogenicity was seen in two year study with rats and mice.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Component CAS# 14807-96-6: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component Silicon Dioxide: There is no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms or plants.

Component CAS# 112926-00-8: Ecotoxicity: EC50 (fish) .10000 mg/l (daphnia >10000 mg/l

Component CAS# 12174-11-7: The International Agency for Research on Cancer (IARC) has classified Attapulgitic clay as group 3, not classifiable as to its carcinogenicity to humans, However, the International Agency for Research on Cancer (IARC) has classified : crystalline silica (a component of Attapulgitic clay, as a Group 1 (known) human carcinogen. Crystalline silica is a NTP listed carcinogen.

Components METHYLENEDI(CYCLOHEXYLAMINE) CAS# 1761-71-3, NONYL PHENOL CAS# 25154-52-3, and ALIPHATIC POLYAMINE NJTSRN 05995500-H2390U: Toxicity to fish – Components Nonylphenol LC50 (96 h) : 0.128 mg/l Species : Fathead minnow (Pimephales promelas). Methylenebis(cyclohexanamine, 4,4'- LC50 (96 h) : 46 - 100 mg/l Species : Golden orfe (Leuciscus idus). Toxicity to daphnia – Components Nonylphenol EC50 (48 h) : 0.0848 mg/l Species : Daphnia Nonylphenol EC50 (48 h) : 0.19 mg/l Species : Daphnia Methylenebis(cyclohexanamine, 4,4'- EC50 (48 h) : 6.84 mg/l Species : Daphnia magna. Toxicity to algae – Components Methylenebis(cyclohexanamine, 4,4'- EC50 (72 h) : 140 - 200 mg/l Species : Algae. Toxicity to other organisms : No data available.

Persistence and degradability Mobility : No data available. Bioaccumulation : No data is available on the product itself. Bioaccumulation – Components Nonylphenol Moderate bioaccumulation potential.

Component Nonyl Phenol: Ecotoxicity: Daphnia EC50: 0.14-0.44 mg/l, 48 hr. Component is not readily biodegradable, log Pow: 3-4. Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.. Aquatic Toxicity LC50 96 hr, toxicity rating is <0.10 ppm – extremely toxic

Component CAS# 68953-36-6: E20/22 Harmful by inhalation and if swallowed. On TSCA list, on DSL Canada, on EINECS, AICS, ENCS, ECL, SEPA, PICCS.

SAFETY DATA SHEET

PRODUCT CODE: 114-2x

Component CAS# 112-57-2: OSHA hazard class – Irritant. Regulatory List: On TSCA, on EINECS, DSL, AICS, ENCS, ECL, SEPA, PICCS.
Component Benzyl Alcohol: EC50 (48hr) 400 mg/l Daphnia Magna, EC50 (72hr) 2600 mg/l Algae, Biodegradation BOD₂ 62. Slightly or not bioaccumulative. Toxicity to fish: LC50 (96 hr) 10 mg/l Bluegill sunfish (*Lepomis macrochirus*), LC50 (96hr) 460 ml/l Fathead minnow (*Pimephales promelas*), Toxicity to Algae: IC50 (72hr) 700 mg/l

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF MATERIAL AS A HAZARDOUS WASTE ACCORDING TO FEDERAL, STATE, AND LOCAL REGULATIONS.

SECTION 14: Transport Information

DOT: UN1760, CORROSIVE LIQUID N.O.S. (N-AMINOETHYLPIPERAZINE, NONYL PHENOL), 8, PG III, MARINE POLLUTANT

IMO/MDG UN1760, CORROSIVE LIQUID N.O.S. (N-AMINOETHYLPIPERAZINE, NONYL PHENOL), 8, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 14807-96-6 may contain Crystalline Silica (Silicon Dioxide) which is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component Titanium Dioxide: Contains Proposition 65 Chemicals, is on the PA Hazardous substance list, is on the NJ right to know Regulated chemical List.

Titanium Dioxide is on inventory or in compliance with EINECS, TSCA, AICS, DSL, ENCS (JP), KECI (KR), PICCS (PH) and INV (CN).

Component Silicon Dioxide: risk phrases: R 48/20 Harmful – Danger of serious damage to health by prolonged exposure through inhalation. Safety Phrases: S 22 – Do not breathe dust and S 38 – In case of insufficient ventilation, wear suitable respiratory equipment.

Silicon Dioxide is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance. Component Crystalline Silica (Silicon Dioxide) is on the Canada DSL – WHMIS Classification D2A. Crystalline Silica is on the Australian Inventory of Chemicals Substances list, Japan Ministry of International Trade and Industry list, Korea Existing Chemicals Inventory with registry number 9212-5667 and the Philippines Inventory of Chemicals and Chemical Substances list.

Component CAS# 12001-26-2: On TSCA list. DSL Canada Listed and is considered an uncontrolled product. Although not on the California Proposition 65 list, it may contain ppm quantities of materials regulated under California's safe drinking water and toxic enforcement act of 1986. Crystalline Silica (Silicon Dioxide) is on the TSCA list. NTP list as a known human carcinogen, California proposition 65 list as a known carcinogen, Massachusetts Toxic Use Reduction Act list as toxic, Pennsylvania Worker and community right to know Act list as a hazardous substance.

Component CAS# 112926-00-8: Is not classified as dangerous. National Chemical Inventory listings include – AICS, DSL, IECSC, EINECS, ENCS, KECI, NZLOC, PICCS, TSCA,

Component Carbon: Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada

Components METHYLENEDI(CYCLOHEXYLAMINE) CAS# 1761-71-3, NONYL PHENOL CAS# 25154-52-3, and ALIPHATIC

POLYAMINE NJTSRN 05995500-H2390U: OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es) Corrosive.

Sensitizer. Country Regulatory list Notification USA TSCA Included on Inventory.

EINECS, Canada DSL AICS ENCS ECL SEPA PICCS . EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification: Acute Health Hazard

Component CAS# 140-31-8: Component is listed on the TSCA inventory. Component can be found on the following state right to know lists: New Jersey, Pennsylvania, Massachusetts. Component contains no California Prop 65 Significant Risk Level: and none of the chemicals in this product are listed. Component is list on the Canadian DSL list, EINECS, AICS, ENCS, ECL, SEPA, PICCS lists.

Component Nonyl Phenol: This component is listed on TSCA, EINECS, ACIS, MITI and Canada DSL lists.

Component Benzyl Alcohol: E20/22 Harmful by inhalation and if swallowed. On TSCA list, on DSL Canada

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