

SAFETY DATA SHEET

PRODUCT CODE: 1784x

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ARM1784x PART A
PRODUCT CODES: ARM1784x 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: 1/2/15

Chemical Name or Class: Epoxy/blocked isocyanate Mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: : Acute oral toxicity category 4, Skin corrosion/irritation category 1, skin sensitizer category 1B, Serious eye damage category 1, Reproductive toxicity category 2, Germ Cell Mutagenicity category 2, Specific target organ toxicity repeated exposure category 2, Acute hazard to aquatic environment category 2, Chronic hazards to aquatic environment category 2

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Corrosion, Health Hazard, Aquatic Toxicity

Hazard Statements:



Warning: Harmful if swallowed

Warning: Harmful in contact with skin

Warning: Causes severe skin burns and eye damage

Warning: May cause an allergic skin reaction

Danger: Causes serious eye damage

Warning: Suspected of damaging fertility of unborn child.

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

Toxic to aquatic life

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.

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

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.

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:

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

P330 Rinse mouth.

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

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

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.

P362 + P364 take off contaminated clothing and wash it before reuse.

P308 + P313 IF exposed or concerned: Get medical advice/attention.

P391 Collect spillage.

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

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

POTENTIAL HEALTH EFFECTS

EYES:

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

SKIN:

CAN CAUSE BURNS TO THE SKIN.

INGESTION:

LIQUID CAN CAUSE SEVERE DAMAGE TO MUCOUS MEMBRANE 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 RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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
Alkyl Phenol	84852-15-3	NONE	NONE	NONE	0.1-1
Alkyl Phenol blocked Isocyanate					
	NJTSRN(31765300002) - 6184P	NONE	NONE	NONE	10-30
NONYL PHENOL	84852-15-3	NONE	NONE	NONE	10-30

NO TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CRF 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 15 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 MATERIALS ARE INGESTED, OTHERWISE DO NOT INDUCE VOMITING. IN EITHER CASE IMMEDIATELY CONSULT WITH A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AREA AND ADMINISTER OXYGEN IF NECESSARY.

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:

NO UNUSUAL FIRE HAZARDS 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 ABSORBANT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 7: HANDLING AND STORAGE

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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN 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, THEREFOR, 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 CANNOT 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: LOW VISCOSITY LIQUID – AMBER CLEAR

BOILING POINT OR RANGE ° F: 200 TO 560 DEG F

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

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:

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: Acute Oral toxicity LD50 >5000 mg/kg. Skin Irritation: exposure time 4hr – no skin irritation. Eye irritation: slightly irritating (rabbit). Mutagenicity: Genetic Toxicity in vitro: Ames – negative (salmonella typhimurium).

Components Alkyl Phenol CAS# 84852-15-3: Acute Oral Toxicity LD50: 1,300 mg/kg (rat) Acute Dermal Toxicity LD50: 2031 mg/kg (rabbit). Skin Irritation: rabbit, OECD test guideline 404, corrosive. Eye Irritation: rabbit, OECD test guideline 405, irritating to eyes. Sensitization: Dermal, not sensitizer (guinea pig, maximization test. Repeated Dose Toxicity: 28 day, oral, NOAEL, 100mg/kg (rat, male/female, daily). Mutagenicity: Genetic toxicity in vitro, Ames – negative results were reported in various in vitro studies (salmonella typhimurium, Metabolic Activation; with/without). Genetic Oxicity in vitro: Micronucleus Assay: negative (mouse, male/female, oral). Toxicity to Reproduction/Fertility: Three generation study, oral, (rat male/female) NOAEL (parental): 200 ppm, NOAEL (F1) 200 ppm NOAEL (F2): 200 ppm. Reproductive

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effects have been shown in animal studies. Developmental Toxicity/Teratogenicity: rat, female, oral, gestation, daily, NOAEL (teratogenicity) 300 mg/kg. NOAEL (maternal) 75 mg/kg, no teratonic effects observed at doses tested. No fetotoxicity observed at doses tested.

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 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.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: Biodegradation: 0%, exposure time, 28 days – not readily biodegradable. Acute and Prolonged Toxicity to fish: LC0 > 10,000 mg/l (zebra fish, 96 hr). Toxicity to microorganisms: EC50 > 10,000 mg/l.

Components Alkyl Phenol CAS# 84852-15-3: Biodegradation: aerobic, 7%, exposure time, 28 days. Bioaccumulation: fathead minnow, exposure time 20 days, 271 BCF. Acute and Prolonged Toxicity to fish: LC50 = 0.31 mg/l (sheepshead minnow, 96 hr, LC50 0.135 mg/l fathead minnow, 96 hr. Toxicity to microorganisms: EC10 = 10-16 mg/l (Pseudomonas putida). Toxicity to aquatic plants: EC50: 1.3 mg/l, End point: Biomass (green algae, 72 hr)

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 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

SECTION 13: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

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

SECTION 14: Transport Information

DOT: UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS nonyl phenol), 8, PG III

IMO/IMDG: UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS nonyl phenol), 8, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

Components Alkyl Phenol CAS# 84852-15-3 and Alkyl Phenol blocked Isocyanate NJTSRN(31765300002) - 6184P: OSHA hazcom standard rating: Hazardous. Components on the following states Right to know substance list: Massachusetts, New Jersey and Pennsylvania. Components are on the TSCA list

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 Nonyl Phenol: This component is listed on TSCA, EINECS, ACIS, MITI and Canada DSL 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: ARM1784x PART B

PRODUCT CODES: ARM1784x B

MANUFACTURER: Armorpoxy Inc.

STREET ADDRESS: 1260 North Avenue

CITY, STATE, ZIP: Plainfield, NJ 07062

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INFORMATION PHONE: 724-483-9300

EMERGENCY PHONE: Chemtrec 800-424-9300

FAX PHONE: (973) 453-8114

PREPARED BY: Armorpoxy Inc.

DATE REVISED: 1/2/15

Chemical Name or Class: polyamine mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

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

GHS Label Elements and Precautionary Statements:

Label Elements: Exclamation Mark, Corrosion, Health Hazard, Aquatic Toxicity



Hazard Statements:

Warning: Harmful if inhaled.

Warning: Harmful if swallowed

Warning: Harmful in contact with skin

Warning: Causes severe skin burns and eye damage

Warning: May cause an allergic skin reaction

Danger: Causes serious eye damage

Warning: Suspected of damaging fertility or the unborn child.

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

Toxic to aquatic life

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.

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

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.

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.

P271 Use only outdoors or in a well-ventilated area

P273 Avoid release to the environment.

Response;

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

P330 Rinse mouth.

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

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

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.

P362 + P364 take off contaminated clothing and wash it before reuse.

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

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

P391 Collect spillage.

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: 2

FLAMMABILITY: 1

REACTIVITY: 0

PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

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

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SKIN:

WILL CAUSE BURNS TO THE SKIN.

INGESTION:

LIQUID CAN CAUSE SEVERE DAMAGE TO MUCOUS MEMBRANE 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 RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:

NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

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>
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	30-60
3-Aminomethyl-3,5,5-Trimethyl Cyclohexane	2855-13-2	NONE	NONE	NONE	10-30
CYCLOALIPHATIC AMINE ADDUCT	68609-08-5	NONE	NONE	NONE	1-5
NONYL PHENOL	84852-15-3	NONE	NONE	NONE	7-13
TRIS-2,4,6-DIMETHYLAMINOMETHYLPHENOL	90-72-2	NONE	NONE	NONE	1-5
Bis(dimethylaminomethyl) phenol	71074-89-0	NONE	NONE	NONE	0.1-1
AMINO TERMINATED POLYETHER	9046-10-0	NONE	NONE	NONE10-30	

NO TOXIC CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CRF 372 ARE PRESENT.

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

SECTION 4: FIRST AID MEASURES

EYES:

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE 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 TO FRESH AIR IF EFFECTS PERSIST AND ADMINISTER OXYGEN IF NECESSARY.

SECTION 5: FIRE-FIGHTING MEASURES

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 FIGHTERS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NO UNUSUAL FIRE HAZARDS 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 ABSORBANT AND PLACE IN DISPOSAL CONTAINERS.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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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:

CLEAN BODY COVERING CLOTHING AS WELL AS APRON FOOTWEAR OR OTHER 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 OCCPATONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: AMBER CLEAR LIQUID WITH AMINE ODOR

BOILING POINT OR RANGE: 401 TO 560 DEG F

VAPOR DENSITY (AIR = 1): N/A

SPECIFIC GRAVITY (H2O = 1): 1.0

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 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# 9046-10-0: Oral LD50 (rat) = 2880 mg/kg; Dermal LC50 (rabbit) = 2980 mg/kg. Corrosive to skin of rabbit. Severe eye irritation (rabbit)

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# 2855-13-2: Oral LD50 rat 1030 mg/kg, Skin irritation – Corrosive subcategory 1C where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days. Eye irritation – Risk of serious damage to eyes. Product Sensitization (Magnusson- Kigman test) guinea pig: may cause sensitization by skin contact. Product Teratogenicity oral rat NOEL (no observed effect level) 250 mg/kg

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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.

Component CAS# 90-72-2 and CAS# 71074-89-0: Oral LD50 (rat) 1200 mg/kg; Dermal LD50 (rabbit) 1280 mg/kg; Inhalation LC50 (rat) > 0.5 mg/liter/1 hour; Severe irritant to eyes of a rabbit. Severe irritant to the skin of a rabbit. Corrosive to the skin of a rabbit.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.

Component data:

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# 2855-13-2: Biodegradability 42% and is not readily biodegradable. Bioaccumulation: - no significant accumulation of the substance in organisms is to be expected. Mobility: The soil mobility of the substance is only minimally affected by adsorption to soil components. Toxicity to fish: LC50 *Lauiscus idus* 110 mg/l (96hr). Toxicity to Daphnia NOEC 3 mg/l (504hr). EC50 *Daphnia magna* 23 mg/l (48 hr). ErC50 *scenedesmus subspicatus* 50 mg/l (72 hr). NOEC *scenedesmus subspicatus* 1.5 mg/l (72 hr). Toxicity to bacteria: EC10 *Pseudomonas putida* 1120 mg/l (18 hr).

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

Component CAS# 90-72-2 and CAS# 71074-89-0: Toxicity: LC50 fish 447.8 mg/l (96 hr). LC50 *Crust* 28.2 mg/l (48 hr). EC50 *alga* 34.8 mg/l (96 hr)

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. (CONTAINS isophorone diamine, nonyl phenol), 8, PG III

IMO/IMDG: UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS isophorone diamine, nonyl phenol), 8, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.

Component data:

Component CAS# 9046-10-0: Target organ effects: Corrosive. Component is on the Massachusetts, Pennsylvania, and New Jersey Right to know lists. Component does not contain chemicals known to California (Prop 65) to cause birth defects or other reproductive harm. This component is listed on TSCA, EINECS, ENCS, AICS, ECL, SEPA, PICCS and Canada DSL lists.

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

Component CAS# 2855-13-2: Acute health hazard. Ingredients on TSCA. International Chemical status listed/registered – EINECS/ELINCS, DSL, AICS, MITI, TCOL, PICCS, China, New Zealand.

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

Component CAS# 68609-08-5 is on the Canada DSL and TSCA lists.

Component CAS# 90-72-2 and 71074-89-0 EEC symbol – Harmful, harmful if swallowed (R22) Irritating to eyes and skin (R36/38).

Component is on the Canada DSL, TSCA, EINECS, AICS, ENCS, ECL, SEPA, PICCS 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