SAFETY DATA SHEET

PRODUCT CODE: 257

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ARM257 PART A
PRODUCT CODES: 257A

MANUFACTURER: ArmorGarage
STREET ADDRESS: 1260 North Ave
CITY, STATE, ZIP: PLainfield NJ 07062

INFORMATION PHONE: 888-755-7361
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Harry Jackson

DATE REVISED: 8/12/24

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
Phenol-Formaldehyde Polymer, Glycidyl Ether	28064-14-4	NONE	NONE	NONE	
Bisphenol F / Epichlorohydrin Epoxy Resin	9003-36-5	NONE	NONE	NONE	
Reaction Products of Epichlorohydrin-Bisphenol A	25068-38-6	NONE	NONE	NONE	
PIGMENT NON HAZARDOUS IN LIQUID FORM		10mg/m3	10mg/m3	5mg/m3	
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100PPM	100PPM	150PPM	
PROPRIETARY NON HAZARDOUS ADDITIVES	UNKNOWN	NONE	NONE	NONE	
STODDARD SOLVENT	8052-41-3	100PPM	100PPM	NONE	
1- METHOXY-2- PROPANOL ACETATE	108-65-6	NONE	NONE	NONE	
PROPRIETARY ADDITIVE LESS THAN 1% OF MIXTURE		NONE	NONE	NONE	

SECTION 2 NOTES: *No toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID VARYING COLORS
BOILING POINT OR RANGE: 200 TO 392F
VAPOR DENSITY (AIR = 1): Not available
SPECIFIC GRAVITY (H2O = 1): 1.2
EVAPORATION RATE: not available
SOLUBILITY IN WATER: NEGLIGIBLE
SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) **UPPER:** not available **LOWER:** not available
FLASH POINT: 89+F
METHOD USED:
SETA FLASH
EXTINGUISHING MEDIA:
FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL,
SPECIAL FIRE FIGHTING PROCEDURES:
DO NOT ENTER CONFINED FIRE AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER. PRESENCE OF SOLVENTS IN PRODUCT MAY REQUIRE GROUNDING.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
IF FIRE OCCURS, SOLVENTS MAY PRODUCE EXCESSIVE PRESSURE. SEALED DRUMS MAY RUPTURE AND IGNITE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND AND IGNITE BY ANY SOURCE OF IGNITION. NEVER USE A CUTTING OR WELDING TORCH NEAR CONTAINERS (EVEN EMPTY). ALL 5 GALLON AND LARGER CONTAINERS SHOULD BE GROUNDED BEFORE TRANSFERRING MATERIAL.

SECTION 4 NOTES:

SECTION 5: STABILITY AND REACTIVITY

STABILITY:
STABLE
CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES AS WELL AS ALL SOURCES OF IGNITION SUCH AS SPARKS, HEATERS, STATIC DISCHARGES ETC..

INCOMPATIBILITY (MATERIAL TO AVOID):
AVOID AMINE CURING AGENTS IN UNCONTROLLED AMOUNTS AND STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
MAY FORM TOXIC CHEMICALS, CARBON DIOXIDE, CARBON MONOXIDE AND VARIOUS HYDROCARBONS ETC..

HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

SECTION 5 NOTES:

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION
HEALTH: 2 FLAMMIBILITY: 3 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:
CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING OR BLURRED VISION.

SKIN:
MAY CAUSE IRRITATION, DEFATTING AND DERMATTITIS.

INGESTION:
CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA AND ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONTITIS WHICH CAN BE FATAL.

INHALATION:
CAN CAUSE NAUSEA AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE AND POSSIBLE UNCONSCIOUSNESS

HEALTH HAZARDS (ACUTE AND CHRONIC):
EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATION OF VAPOR. OVER-EXPOSURE TO THIS MATERIAL CAN CAUSE CARDIAC ABNORMALITIES, ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE OR EVEN EYE DAMAGE.

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

CARCINOGENICITY
OSHA: NO NTP: NO IARC: NO

ADDITIONAL CARCINOGENICITY INFORMATION:
NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

SECTION 7: 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:
DO NOT INDUCE VOMITING, KEEP PERSON WARM AND CONSULT A PHYSICIAN IMMEDIATELY.

INHALATION:
REMOVE VICTIM TO FRESH AIR AND ADMIINISTER OXYGEN IF NECESSARY. OBTAIN MEDICAL ATTENTION.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WEAR RESPIRATOR AND PROTECTIVE CLOTHING. REMOVE ALL SOURCES OF IGNITIONS. 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 8 NOTES:

SECTION 9: WASTE DISPOSAL

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

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
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. KEEP MATERIAL AWAY FROM ALL SOURCES OF IGNITION.
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.
WEAR APPROPRIATE SAFETY EQUIPMENT AND RESPIRATOR AT ALL TIMES WHEN VENTILATION IS NOT SUFFICIENT TO CONTROL VAPORS.

SECTION 10 NOTES:

SECTION 11: 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. ENGINEERING OR ADMINISTRATIVE MEASURES SHOULD BE TAKEN TO REDUCE THE RISK AND EXPOSURE.
VENTILATION:
PROVIDE SUFFICIENT MECHANICAL (GENERAL AND LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TOXIC LEVEL VALUES.
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 HYGENIC PRACTICES.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

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.

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ARM257 PART B
PRODUCT CODES: 257 B

MANUFACTURER: ArmorGarage
STREET ADDRESS: 1260 North Ave
CITY, STATE, ZIP: Plainfield NJ 07062

INFORMATION PHONE: 888-755-7361
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Harry Jackson

DATE REVISED: 8/12/24

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	
METHYLENEDI (CYCLOHEXYLAMINE)	1761-71-3	NONE	NONE	NONE	
3-Aminomethyl -3,5,5-Trimethyl Cyclohexane	2855-13-2	NONE	NONE	NONE	
2-Hydroxybenzoic Acid	69-72-7	NONE	NONE	NONE	
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100PPM	100PPM	150PPM	

***No toxic chemical (s) subject to the reporting requirements of section 313 Title III and of 40. ***

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID – AMBER CLEAR/SOLVENT ODOR
BOILING POINT OR RANGE: 243 TO 477 F
VAPOR DENSITY (AIR = 1): not available
SPECIFIC GRAVITY (H2O = 1): 1.0
EVAPORATION RATE: not available
SOLUBILITY IN WATER: negligible

SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME) **UPPER:** not available **LOWER:** not available
FLASH POINT: 90F
METHOD USED:
Seta Flash
EXTINGUISHING MEDIA:
FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL
SPECIAL FIRE FIGHTING PROCEDURES:
DO NOT ENTER CONFINED FIRE AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL ALL FIRE EXPOSED CONTAINERS WITH WATER. PRESENCE OF SOLVENTS IN PRODUCT MAY REQUIRE GROUNDING.
UNUSUAL FIRE AND EXPLOSION HAZARDS:
IF FIRE OCCURS, SOLVENTS MAY PRODUCE EXCESSIVE PRESSURE. SEALED DRUMS MAY RUPTURE AND IGNITE. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND AND IGNITE BY ANY SOURCE OF IGNITION. NEVER USE A CUTTING OR WELDING TORCH NEAR CONTAINERS (EVEN EMPTY). ALL 5 GALLON AND LARGER CONTAINERS SHOULD BE GROUNDED BEFORE TRANSFERRING MATERIAL.

SECTION 4 NOTES:

SECTION 5: STABILITY AND REACTIVITY

STABILITY:
STABLE

CONDITIONS TO AVOID (STABILITY):
AVOID EXCESSIVE HEAT OR OPEN FLAMES AS WELL AS ALL SOURCES OF IGNITIONS SUCH AS SPARKS, HEATERS, STATIC DISCHARGES ETC..
INCOMPATIBILITY (MATERIAL TO AVOID):
AVOID EPOXY CURING AGENTS IN UNCONTROLLED AMOUNTS AND STRONG OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
MAY FORM TOXIC CHEMICALS, CARBON DIOXIDE, CARBON MONOXIDE AND VARIOUS HYRDOCARBONS ETC..
HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR

SECTION 5 NOTES:

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION
HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS
EYES:
CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, OR BLURRED VISION.
SKIN:
MAY CAUSE IRRITAITON, DEFATTING AND DERMATTITIS.
INGESTION:
CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, DIARRHEA, AND ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONTITIS WHICH CAN BE FATAL.
INHALATION:
CAN CAUSE NAUSEA AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE NAUSEA, HEADACHE, AND POSSIBLE UNCONSCIOUSNESS.
HEALTH HAZARDS (ACUTE AND CHRONIC):
AMINE RESINS CAN CAUSE SENSTIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATIONS OF VAPOR. OVER-EXPOSURE TO THIS MATERIAL CAN CAUSE CARDIAC ABNORMALITIES, ANEMIA, LIVER ABNORMALITIES, KIDNEY DAMAGE OR EVEN EYE DAMAGE.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.
CARCINOGENICITY
OSHA: NO NTP: NO IARC: NO
NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

SECTION 7: 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:
DO NOT INDUCE VOMITING, KEEP PERSON WARM AND CONSULT A PHYSICIAN.
INHALATION:
REMOVE VICTIM TO FRESH AIR AND ADMINISTER OXYGEN IF NECESSARY.
NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
WEAR RESPIRATOR AND PROTECTIVE CLOTHING. REMOVE ALL SOURCES OF IGNITIONS. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP REMAINDER WITH AN ABSORBANT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.
SECTION 8 NOTES:

SECTION 9: WASTE DISPOSAL

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

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

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. KEEP MATERIAL AWAY FROM ALL SOURCES OF IGNITION.

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

WEAR APPROPRIATE SAFETY EQUIPMENT AND RESPIRATOR AT ALL TIMES WHEN VENTILATION IN NOT SUFFIECIENT TO CONTROL VAPORS.

SECTION 10 NOTES:

SECTION 11: 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. ENGINEERING OR ADMINISTRATIVE MEASURES SHOULD BE TAKEN TO REDUCE THE RISK AND EXPOSURE.

VENTILATION:

PROVIDE SUFFICIENT MECHANIICAL (GENERAL AND LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TOXIC LEVEL VALUES.

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.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

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.

SAFETY DATA SHEET

PRODUCT CODE: 253

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **ARM253X**
PRODUCT CODES: **253 A**

MANUFACTURER: **ARMORGARAGE LLC**
STREET ADDRESS: **1260 North Ave**
CITY, STATE, ZIP: **Plainfiled NJ 07062**

INFORMATION PHONE: **305-330-9192**
EMERGENCY PHONE: **Chemtrec**
800-424-9300 **FAX PHONE:** **724-483-9306**

PREPARED BY: **Harry Jackson**

DATE REVISED: **4/15/24**

Chemical Name or Class: Epoxy/novolac 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
Carcinogen category 2
Specific target organ toxicity – single exposure category 3 (narcotic effect)

HMIS HAZARD CLASSIFICATION
HEALTH: 2 **FLAMMABILITY: 1** **REACTIVITY: 0** **PERSONAL PROTECTIVE EQUIPMENT: G**
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.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS.
CARCINOGENICITY
OSHA: NO **NTP: yes** **IARC: yes**
ADDITIONAL CARCINOGENICITY INFORMATION:

Some colors may contain carbon black - Explanation Of Carcinogenicity for carbon: IARC MONOGRAPHS ON EVALUATION OF CARCINOGENIC RISK OF CHEMICALS TO MAN, VOL 65, PG 149, 1996: GROUP 2BTitanium Dioxide is listed by IARC as possibly carcinogenic to humans (group 2B).

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
MODIFIED DIGLYCIDYL ETHER OF BISPENOL A	25068-38-6	NONE	NONE	NONE	1-5
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	0.1-1
Epoxy phenol novolac resin	28064-14-4	NONE	NONE	NONE	10-30
BISPHENOL F/EPICHLOROHYDRIN EPOXY RESIN	9003-36-5	NONE	NONE	NONE	30-60
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 ppm	100 ppm	150 ppm	3-7
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
STODDARD SOLVENT	8052-41-3	100ppm	100 ppm	NONE	0.1-1
1-Methoxy-2-Propanol Acetate	108-65-6	50ppm	NONE	NONE	0.1-1
*1,2,4-Trimethylbenzene	95-63-6	25ppm	NONE	NONE	(0.5%)
sec-butyl alcohol	78-92-2	150ppm	100ppm	NONE	
acetic acid, butyl ester	123-86-4	150ppm	150ppm	200ppm	0.1-1
Colors may contain @ 7-13%:					
Titanium Dioxide	13463-67-7	10mg/m3	10mg/m3	5mg/m3	
*CARBON	1333-86-4	3.5PPM	3.4PPM	NONE	<1.0
Precipitated Silica	112926-00-8	NONE	80mg/m3	NONE	
Iron III oxide	1309-37-1	10mg/m3	5mg/m3	NONE	
Yellow Pigment	Not available	NONE	NONE	NONE	
Zinc Sulfate (component of yellow pigment)	1314-98-3	NONE	NONE	NONE	
Barium Sulfate (component of yellow pigment)	7727-43-7	NONE	NONE	NONE	
Titanium Dioxide (component of yellow pigment)	13463-67-7	NONE	NONE	NONE	
Pigment yellow 65 (component of yellow pigment)	6528-34-3	NONE	NONE	NONE	
Iron III oxide	20344-49-4	15mg/m3	5mg/m3	NONE	
C.I. Pigment Blue	147-14-8	1mg/m3	1mg/m3	NONE	
Aluminum Oxide	1344-28-1	15mg/m3	10mg/m3	NONE	
Silica, amorphous	7631-86-9	80mg/m3	10mg/m3	NONE	
Iron Oxide Yellow	51274-00-1	15mg/m3	10mg/m3	NONE	
Silica, amorphous	7631-86-9	80mg/m3	10mg/m3	NONE	

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:

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 IN VARYING COLORS
BOILING POINT OR RANGE: 200 TO 279F
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.1 - 1.2
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: NEGLIGIBLE

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 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 Epoxy phenol novolac resin CAS# 28064-14-4: LD50 Oral: >4000 mg/kg (adult rat). LD50 skin (adult rabbit) >2000 mg/kg. Mutagenicity was negative in in-vivo genotoxicity assays. Mixed results were seen in in-vitro genotoxicity assays.
Component BISPHENOL F/EPICHLOROHYDRIN EPOXY RESIN CAS# 9003-36-5: Acute Oral Effects: LD50 (rat) >5000 mg.kg. Acute Dermal Toxicity (rabbit) >3000 mg/kg. Inhalation toxicity LC50 (rat) >1.7 mg/l air for a 4-hr aerosol exposure (maximum concentration obtained). Sensitization (guinea pig) causes sensitization. Skin Irritation (rabbit) Causes moderate irritation. Eye irritation (rabbit) Causes slight irritation.
Component CAS# 107-98-2: Ingestion LD50 rat 4016 mg/kg, Dermal LD50 rabbit >2000 mg/kg, Inhalation LC50 6 hr Vapor, rat >25.8 mg/l. May cause eye or skin irritation. May effect Kidney or liver. Has been reported to be toxic to fetus in laboratory animals.
Component CAS# 8052-41-3: Draize test (rabbit) eye: 500 mg/24hr – Moderate. Epidemiology: Studies involving petroleum refinery workers indicate that persons with routine exposure to petroleum based constituents may be at an increased risk to the development of benign neoplasms, digestive tract cancer and skin cancer. LD50 oral >6000 mg/kg (rat). Dermal LD50 >3000 mg/kg (rabbit). Inhalation LC50 = 5500 mg/kg (4 hr) (rat). Component is a moderate skin irritant. Product is an eye irritant.
Component CAS# 108-65-6: Oral LD50 = 8532 mg/kg (rat). Dermal LD% >5000 mg/kg (rabbit). Inhalation LC50 >100ppm (4hr) (rat) Component is a moderate skin irritant. Product is an eye irritant
Component CAS# 95-63-6: Oral LD50 (rat) = 5000 mg/kg. Inhalation LC50 (rat) -4h = 18000 mg/m3.
Component CAS# 78-92-2: Acute Oral Toxicity LD50 = 6480 mg/kg (rat)
Component acetic acid, butyl ester CAS# 123-86-4: Acute Oral Toxicity LD50 = 10768 mg/kg (rat) 4hr estimated. Acute Dermal Toxicity LD50 = 17601 mg/kg (rabbit) 4hr estimated. Acute Toxicity of the vapor LC50 = 2000 (rat) 4hr estimated.
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# 67762-90-7: LD50 (rat >1000 mg/kg, LD50 dermal (rabbit) >2000 mg/kg
Component Carbon: IARC lists carbon as a possible human carcinogen Category 2B. LD50 – Intravenous, mouse = 440 mg/kg
Component CAS# 112926-00-8: LD50 (rat >5000 mg/kg, LD50 dermal (rat) >2000 mg/kg
Component Iron III oxide CAS# 1309-37-1: Acute Oral Toxicity LD50 >5000 mg/kg (rat). Acute Dermal Toxicity LD50 >5000 mg/kg (rat)
Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.. Acute oral value of 20 gm/kg or greater in rats
Component Iron III oxide CAS# 20344-49-4: Acute Oral Toxicity LD50 >5000 mg/kg (rat).

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 Epoxy phenol novolac resin CAS# 28064-14-4: Freshwater Fish Toxicity - the acute LC50 is 1-10 mg/L, based on similar materials; Freshwater Invertebrates. Toxicity - the acute EC50 is 1-10 mg/L, based on similar materials. Material is not readily biodegradable.
Component CAS@ 107-98-2: Bioconcentration potential is low (BCF less than 100). Potential for mobility in soil is high (KOC between 0 and 50). Material is readily biodegradable and is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100mg/l in the most sensitive species tested.. LC50 fathead minnow 96 hr 20800 mg/l, LC50 water flea 48 hr lethally 23300 mg/l, EbC50 green algae biomass growth inhibition 7 d >1000 mg/l. Toxicity to microorganisms IC50 activated sludge > 1000 mg/l
Component CAS# 95-63-6: Toxicity to fish LC50 (fathead minnow) 7.72 mg/l 96 hr. Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 (water flea) 3.6mg/l 48hr.
Component CAS# 108-65-6: Biodegradation Aerobic: 100% exposure time 8 days. Acute and prolonged Toxicity to Fish LC50: 161 mg/l (fathead minnow, 96 hrs; Acute toxicity to Aquatic Invertebrates EC50: 408 mg/l (water flea, 48 hrs))
Component CAS# 78-92-2: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.
Component acetic acid, butyl ester CAS# 123-86-4 : Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise. The products of degradation are more toxic.
Component Titanium Dioxide: Pimephales promelas (fathead minnow) < 1000 mg/l @ 96h LC50; Pseudokirchneriella subcapitate (green algae) 61 mg/l @ 72h EC50; Daphnia magna (water flea) > 1000 mg/l @ 48h EC50
Component CAS# 112926-00-8: Ecotoxicity: EC50 (fish) .10000 mg/l (daphnia >10000 mg/l
Component Iron III oxide CAS# 1309-37-1 Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Acute toxicity to Aquatic Invertebrates EC0 > 10000 mg/l (water flea). Toxicity to Microorganisms EC0 > 1000mg/l (pseudomonas putida)
Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.
Component Iron III oxide CAS# 20344-49-4: Acute and Prolonged Toxicity to fish LC0 >1000 mg/l (golden Orfe). Toxicity to Microorganisms EC0 > 10000mg/l (pseudomonas putida)

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 Epoxy phenol novolac resin CAS# 28064-14-4: U.S. Toxic Substances Control Act:
All components of this product are either listed on the U.S. Toxic Substances Control Act (TSCA) inventory of chemicals
or are otherwise compliant with TSCA regulations. Immediate health hazard. The chemical identity of some or all components present is confidential business information (trade secret) and is being withheld as permitted by
29CFR1910.1200 (i). Component is on the Candian Domestic Substances List (DSL) Canadian WHMIS Class:
D2B
Component BISPHENOL F/EPICHLOROHYDRIN EPOXY RESIN CAS# 9003-36-5: Component is on the TSCA and Cadada DSL lists. Component is on the New Jersey and Pennsylvania right to know lists
Component CAS# 107-98-2; on the PA right to know list. Product is on the TSCA list and DSL Canada
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.
Component CAS# 8052-41-3: Component is on the TSCA and Canada DSL lists. Component is on the Pennsylvania, California, New Jersey Massachusetts and Minnesota right to know lists.
Component CAS# 95-63-6: This component is subject to SARA Title III Section 313 reporting. This component is in the TSCA and Canada DSL Lists. This component is on the Massachusetts, Pennsylvania, New Jersey right to know lists.
Component CAS# 108-65-6: on the TSCA list. Component is on the Pennsylvania, Massachusetts or New jersey Right to know substance list.
Component CAS# 78-92-2: Component is on Canada DSL and TSCA lists. Component is on the Massachusetts and Pennsylvania Right to Know list
Component acetic acid, butyl ester CAS# 123-86-4 : Component is on Canada DSL and TSCA lists. Component is on the Massachusetts and Pennsylvania Right to Know list. n-butyl acetate is a CERCLA 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 Carbon: Contains Proposition 65 Chemicals .Carbon: is listed on TSCA and DSL Canada
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 Iron III oxide CAS# 1309-37-1 Listed on TSCA Inventory. Section 313/312 hazard category: Chronic healtgh hazard. Potential exposure to all of the California proposition 65 have been determined to be below the No significant risk level (NSRL). Component and its impurities (1%) are on the Pennsylvania, New Jersey right to know substance lists. Component contains the following chemicals listed on the New Jersey and Pennsylvania RTK special hazardous Substance lists: Manganese CAS# 7439-96-5 (0.7%) and Aluminum CAS# 7429-90-5 (0.29%). Component contains the following ingredients which are on the Pennsylvania, Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.075%) and Nickel CAS# 7440-02-0 (0.04%) Component contains the following chemicals on the California Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.04%) and Cobalt CAS# 7440-48-4 (30 ppm).
Component Yellow Pigment: Not Hazardous as defined by OSHA HC Standard 29 CFR 1810.1200.
Component Iron III oxide CAS# 20344-49-4: Listed on TSCA Inventory. Potential exposure to all of the California proposition 65 chemicals have been determined to be below the No significant risk level (NSRL). Components are on the Pennsylvania right to know substance list. Component contains the following chemicals listed on the Pennsylvania RTK special hazardous Substance lists: chromium CAS# 7440-47-3 (0.02%) and nickel CAS# 7440-02-0 (0.015%). Component contains the following ingredients which are on the Massachusetts hazardous substance lists: Chromium CAS# 7440-47-3 (0.02%), arsenic CAS# 7440-38-2 (60ppm), Berrylium CAS# 7440-41-7 (1ppm) and Nickel CAS# 7440-02-0 (0.015%) Component contains the following chemicals on the California Proposition 65 list known to the state of California to be carcinogenic: Nickel CAS# 7440-02-0 (0.015%), arsenic CAS# 7440-38-2 (60ppm), Berrylium CAS# 7440-41-7 (1ppm) and Cobalt CAS# 7440-48-4 (70ppm)..
Component CAS# 147-14-8: Component is on the TSCA List. and not controlled under WHMIS. Component is a CERCLA hazardous substance
Component CAS# 1344-28-1: Component is on the Massachusetts, New Jersey, Pennsylvania right to know lists. Component is on TSCA list and Canada DSL.
Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Component is on TSCA list and Canada DSL.
Component CAS# 51274-00-1: Component is on the TSCA list and Canada DSL**.**
Component CAS# 7631-86-9: Component is on the Minnesota right to know list. Component is on TSCA list and Canada DSL.

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: ARM253X **PRODUCT CODES:** 253 B

MANUFACTURER: ARMORGARAGE LLC
STREET ADDRESS: 1260 North Ave
CITY, STATE, ZIP: Plainfield, NJ 07062

INFORMATION PHONE: **305-330-9192**
EMERGENCY PHONE: **Chemtrec**
800-424-9300 **FAX PHONE:** **724-483-9306**

PREPARED BY: **Harry Jackson**

Chemical Name or Class: polyamine mixture

SECTION 2: HAZARDS IDENTIFICATION

Hazard Overview

GHS Classification: **Specific target organ toxicity following repeated exposure category 2, Skin corrosion/irritation category 1, skin sensitizer category 1B, Serious eye damage category 1, Acute hazard to aquatic environment category 3, 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: May cause damage to organs through prolonged or repeated exposure.
Danger: Causes Severe skin burns and eye damage
Warning: May cause an allergic skin reaction
Danger: Causes serious eye damage.
Harmful 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
P260 Do not breathe dust/fume/gas/mist/vapours/spray
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;
P314 Get medical advice/attention if you feel unwell.
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.
P304 + P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P310 Immediately call a POISON CENTER or doctor/physician.
P321 If skin irritation or burns develop, Call a doctor/physician .
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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.
P310 If in eyes, immediately call a POISON CENTER or doctor/physician.
P391 Collect spillage.
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 TO THE 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: NO** **IARC: NO**

ADDITIONAL CARCINOGENICITY INFORMATION:
NO LISTED INGREDIENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	OSHA PEL	ACGIH TLV	OSHA STEL	WEIGHT %
BENZYL ALCOHOL	100-51-6	NONE	NONE	NONE	30-60
METHYLENEDI (CYCLOHEXYLAMINE)	1761-71-3	NONE	NONE	NONE	10-30
cyclohexanamine, 4,4-methylenebis reaction products	129733-57-9	NONE	NONE	NONE	10-30
3-AMINOMETHYL-3,5,5-TRIMETHYL CYCLOHEXANE	2855-13-2	NONE	NONE	NONE	10-30
2-HYDROXYBENZOIC ACID	69-72-7	NONE	NONE	NONE	3-7

***INDICATES TOXIC CHEMICAL(S) SUBJECT TO THE 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:
IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 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 TO FRESH AIR IF EFFECTS PERSIST 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, 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 OCCPATIONAL EXPOSURE LIMIT VALUES.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: AMBER CLEAR LIQUID WITH AMINE ODOR.
BOILING POINT OR RANGE: 477F
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.0
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: NEGLIGIBLE

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 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 BENZYL ALCOHOL CAS# 100-51-6, METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3, cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: LD50 > 2000 mg/kg Species rat – method estimated.
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# 2855-13-2: Oral LD50 rat 1030 mg/kg, Skin irritation – Corrosive sucategory 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- Kingman test) guinea pig: may cause sensitization by skin contact. Product Teratogenicity oral rat NOEL (no observed effect level) 250 mg/kg
Component CAS# 69-72-7: Acute Oral Toxicity LD50 (rat) = 891 mg/kg (behavioral somnolence (general depressed activity, Behavioral muscle weakness)). Acute Inhalation LC50 (rat) >900 mg/m3, 1 hr. Acute Dermal LD50 (rabbit) >10,000 mg/kg. Skin Irritation (rabbit) – mild skin irritation -24hr. Eye Irritation (rabbit) – severe eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

No data for the product itself.
Component data:
Component Benzyl Alcohol: EC50 (48hr) 400 mg/l Daphnia Magna, EC50 (72hr) 2600 mg/l Algae, Biodegradation BOD_2 62. Slightly or not bioaccumulative. Toxicity to fish: LC50 (96 hr) 10 mg/l Bluegill sunfish (Lepomis macrochinus), LC50 (96hr) 460 ml/l Fathead minnow (Pimephales promelas), Toxicity to Algae: IC50 (72hr) 700 mg/l
Component METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3: LC50 (96hr) 46-100 mg/l (species golden orfe). EC50 (48hr) 6.84 mg/l (species Daphnia magna).IC50 (72hr) 140-200 mg/l (species algae)

Component cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: LC50 (96hr) 7.8 mg/l (species rainbow trout)
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 Lauciscus 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 CAS# 69-72-7: Toxicity to Fish LC50 (Leuciscus idus – 96 mg/l. Toxicity to Daphnia magna – 105mg/l, 24 hr. ComponentMutagenic Effects: Mutagenic for bacteria and/or yeast. Developmental toxicity: Classified reproductive system toxin/female, development toxin possible.

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, 2-HYDROXY BENZOIC ACID), 8, PG III

IMO/IMDG : UN1760, CORROSIVE LIQUID N.O.S. (CONTAINS ISOPHORONE DIAMINE, 2-HYDROXY BENZOIC ACID, BENZYL ALCOHOL), 8, PG III, MARINE POLLUTANT

SECTION 15: REGULATORY INFORMATION

No data for the product itself.
Component data:
Component Benzyl Alcohol: E20/22 Harmful by inhalation and if swallowed. On TSCA list, on DSL Canada.
Components METHYLENEDI (CYCLOHEXYLAMINE) CAS# 1761-71-3, cyclohexanamine, 4,4-methylenebis reaction products CAS# 129733-57-9: Included on TSCA, EINECS, AICS, ENCS, ECL, SEPA lists. Canada DSL – not on inventory, Notifications have been submitted to Environment Canada.
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 CAS# 69-72-7: Component is on the Pennsylvania and New Jersey right to know lists. Component is on the TSCA 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