



AMERON
Coatings

M. S. D. S.

Material Safety Data Sheet

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : NU-KLAD 114A OFF-WHITE RESIN
 IDENTIFICATION NUMBER: N114AB30104
 PRODUCT CLASS : EPOXY FILLER COMPOUND
 HEALTH : WARNING HMIS/NFPA : H2F1R0

Ameron International
 Protective Coatings Group
 201 North Berry St.
 Brea, CA 92821

EMERGENCY: 800-424-9300 (ChemTrec)
 24 Hours Emergency Hotline

INFORMATION: William B. Dances, PHONE: 714-529-1951 PREPARE DATE: 03/06/02
 PREVIOUS REVISION DATE: 01/19/02

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	BARIUM SULFATE (Trace contaminants @ppm: silica**<100; arsenic**<.02; lead**#<0.02%, cadmium**#<0.001%)	7727-43-7	45.0 %
02	EPOXY RESIN (Epch**# <2ppm, DGE <2ppm, PGE** <6ppm)	25068-38-6	35.0 %
03	SILICA (QUARTZ**)* Fed OSHA: N NTP: Y ACGIH: N IARC: 2A * Cancer or cancer suspect agent.	14808-60-7	20.0 %
04	RHEOLOGY ADDITIVE	8001-78-3	5.0 %
05	CRESYL GLYCIDYL ETHER	26447-14-3	5.0 %
06	+ TITANIUM DIOXIDE (As TiO2 trace contaminants 2.5% aluminum hydroxide 3% amorphous silica)	13463-67-7	5.0 %
07	FURFURYL ALCOHOL (STEL 15ppm, 60mg/m3.)	98-00-0	5.0 %

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

WT/WT %

ITEM ----- CHEMICAL NAME ----- CAS NUMBER LESS THAN

ITEM	EXPOSURE LIMITS				VP mmHg @68F	TOXICITY	
	----- ACGIH -----		----- OSHA -----			LD50	LC50
	TLV-TWA ppm	TLV-TWA Mg/M3	PEL-TWA ppm	PEL-TWA Mg/M3		g/kg	ppm
01	dna	5.0	dna	5.0	N.A.	dna	dna
02	dna	dna	dna	dna	N.A.	20.000	dna
03	dna	0.05	dna	0.1	N.A.	dna	dna
04	dna	3.0	dna	5.0	N.A.	dna	dna
05	dna	dna	dna	dna	N.A.	2.100	dna
06	dna	5.0	dna	5.0	N.A.	10.000	6820.000
07 10		40	10	40(S)	N.A.	dna	dna

REGULATORY: **CALIF.TITLE 26:22-12000 (PROP 65). WARNING: This product contains a chemical known to the State of California to cause cancer.
#CALIF.TITLE 26:22-12000 (PROP 65). WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. All ingredients are on TSCA inventory or are exempt. Toxic chemicals marked (SARA, CERCLA, HAPs) are subject to reporting requirements of SARA (40CFR 355 and 372), CERCLA (40CFR 302), or HAPs (40CFR 63).

(S)=Skin; LD50=Dermal.rabbit; LC50=Inhalation,rat; dna=data not available; na=not applicable

SECTION 3 - HAZARDS IDENTIFICATION

EXPOSURE EFFECTS: Vapor or spray mist or spattered material can be harmful. Irritating to eyes, skin, and if inhaled; to nose and throat. Excessive or prolonged inhalation can cause headache, nausea or dizziness. Repeated and prolonged occupational overexposure to solvents is associated with permanent brain and nervous system damage. Intentional abuse, misuse or other massive exposure to solvents may cause multiple organ damage and/or death.

OVER-EXPOSURE (prolonged or repeated use): CAN AGGRAVATE OR ACCENTUATE ANY OF THESE EFFECTS.

SKIN: Irritant. Burns. Sensitization or allergic reaction, such as rash or hives. Can be absorbed through skin.

INHALATION: Irritant. Lung injury. Respiratory sensitization and allergic reaction such as asthma. Central nervous system damage. Repeated

SECTION 3 - HAZARDS IDENTIFICATION

exposure to silica dust can cause silicosis. Crystalline silica may cause cancer. Risk of cancer depends on duration and level of exposure to dust from sanding surfaces or spray mist. Smoking aggravates problems. Excessive exposure to barytes dust may product "baritosis."

EYES: Irritant. Corneal injury. Burns. DO NOT wear contact lenses when using this material.

INGESTION: Harmful if swallowed.

TARGET ORGANS: + Pigment content is dependent on color. Kidneys. Lungs. Skin. Eyes. Stomach. Central nervous system.

MEDICAL CONDITIONS AGGRAVATED: Respiratory. Allergies. Lungs.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID PROCEDURES: INHALATION: Remove to fresh air. Restore normal breathing. Treat symptomatically. See physician. SKIN: Wash thoroughly with soap and water. Remove contaminated clothing. Consult physician if irritation persists. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. INGESTION: Drink 1 or 2 glasses of water to dilute. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult physician or poison control center IMMEDIATELY. Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 200 F (SETA) LOWER EXPLOSIVE LIMIT: N.A.
UPPER EXPLOSIVE LIMIT: N.A.

FLAMMABILITY - OSHA: COMBUSTIBLE - CLASS IIIB
DOT: NOT REGULATED

EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL

LOWEST FLASHING SOLVENT:

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when exposed to extreme heat and pressure buildup. May produce a floating fire hazard. Isolate from electrical equipment, sparks, heat and open flame. Vapors may spread long distances, cause flash fire or ignite explosively.

FIREFIGHTING PROCEDURES: Wear full protective equipment, self-contained

SECTION 5 - FIRE FIGHTING MEASURES

breathing apparatus. Water may be used to cool closed containers to prevent pressure build-up or explosion when exposed to extreme heat.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL, LEAKS: Remove all sources of ignition. Avoid breathing vapors. Ventilate area. Use absorbent, inert cleanup materials. (DO NOT use sawdust.) Remove absorbent material with non-sparking tools. Place in separate container. Keep out of sewers and waterways. If entry is threatened or occurs, notify local authorities.

SECTION 7 - HANDLING AND STORAGE

HANDLING AND STORAGE: Keep container closed, upright when not in use. Store in cool, dry, well-ventilated area. Avoid prolonged storage temperatures above 100F. Use caution when pouring. Avoid breathing sanding dust. Do not weld or flame cut on empty container.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Implement administrative and engineering controls to reduce exposure. Provide sufficient ventilation in volume and pattern to keep air contaminant concentrations below the TLV limits. Remove welding or flame cutting decomposition products; follow current, ANSI Z49.1, "Safety in Welding and Cutting". Refer to 29 CFR parts 1910 and 1915, for coating

operations; part 1910.146, Confined Spaces.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA certified respirator designed to remove a combination of particulates (dust or spray mist) and vapor. When brushing, rolling or spreading; select the appropriate respiratory protection for the conditions. For specific conditions, refer to current "NIOSH Pocket Guide to Chemical Hazards". In confined or restricted ventilation areas use air-line respirators or hoods. Refer to 29 CFR, OSHA parts 1910.134 and 1915 for coating operations; part 1910.146 Confined Spaces; ANSI Z88.2, Practices for Respiratory Protection; 42 CFR, part 84 Particulate Respirators.

PROTECTIVE CLOTHING AND EQUIPMENT: Dependent upon application method, wear resistant coveralls, gloves and shoe coverings to prevent skin contact. Wear solvent resistant glasses with splash guards or face shield to protect eyes from splash, spatter and/or spray mist. Consult 29 CFR 1910.132, 133, 136, 138; ANSI Z87.1, Z41. Use explosion and spark-proof equipment.

HYGIENIC PRACTICES: Wash thoroughly after handling and before eating, smoking or using toilet. Launder contaminated clothing before use. Destroy

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

contaminated leather and absorbent shoes, which cannot be decontaminated, to prevent reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE	: N.A.	VAPOR DENSITY	: Is heavier than air
ODOR	: NA	WEIGHT PER GAL	: 16.8589
APPEARANCE	: LIQUID	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O	: NO		
MIXED VOC, G/L	: 0.0		
		PHOTOCHEMICALLY REACTIVE:	No
VOLATILE VOLUME %	: 0.66		

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, open flame, arc or sparks. High temperatures.

INCOMPATIBILITY: Strong oxidizers, acids and alkalies.

HAZARDOUS DECOMPOSITION PRODUCTS: (BY FIRE, BURNING OR WELDING); CO, CO₂. Aldehydes. SO_x. Toxic gases or fumes.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

TOXICOLOGICAL PROPERTIES: See Section 2. Crystalline silica (respirable size, 10 microns or less). IARC Monograph on the Evaluation of Carcinogenic Risk of Chemicals to Humans (Vol 68, 1997) concludes that there is sufficient evidence of carcinogenicity to experimental animals and limited evidence of carcinogenicity to humans. - IARC Class 1.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

EPA Waste No.: None

DISPOSAL METHOD: Place in separate, appropriate, closed container in accordance with all applicable local, State, and Federal regulations. This material has NOT been tested by Toxicity Characteristic Leaching Procedure (TCLP).

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL

DOT HAZARD CLASS: NA HAZARD SUBCLASS: NA

DOT UN/NA NUMBER: NA IMO: NA PACKING GROUP : NA

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product:

----- CHEMICAL NAME -----	CAS NUMBER
No non-hazardous materials are among the top five ingredients.	

PENNSYLVANIA RIGHT-TO-KNOW:

The following non-hazardous ingredients are present in the product at greater than 3%:

----- CHEMICAL NAME -----	CAS NUMBER
No non-hazardous ingredients are present at greater than 3%.	

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

SECTION 16 - OTHER INFORMATION

NOTICE: Removal of old lead paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For additional information,

contact the USEPA/Lead Information Hotline at 1-800-424-LEAD.



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Coatings

M. S. D. S.

Material Safety Data Sheet

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : NU-KLAD 114A CURE
 IDENTIFICATION NUMBER: N114AC00000
 PRODUCT CLASS : EPOXY FILLER COMPOUND
 HEALTH : DANGER/CORROSIVE HMIS/NFPA : H3*F1R0

Ameron International
 Protective Coatings Group
 201 North Berry St.
 Brea, CA 92821

EMERGENCY: 800-424-9300 (ChemTrec)
 24 Hours Emergency Hotline

INFORMATION: William B. Dances, PHONE: 714-529-1951 PREPARE DATE: 05/01/02
 PREVIOUS REVISION DATE: 03/06/02

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT % LESS THAN
01	SILICA (QUARTZ**) * Fed OSHA: N NTP: Y ACGIH: N IARC: 2A * Cancer or cancer suspect agent.	14808-60-7	50.0 %
02	POLYAMINE ADDUCT	Mixture	30.0 %
03	AROMATIC HYDROCARBON RESIN (Trace contaminant toluene# 0.6%, formaldehyde** 0.0001%)	25155-81-1	10.0 %
04	TRIMETHYL HEXAMETHYLENEDIAMINE	3236-53-1	10.0 %
05	RHEOLOGY ADDITIVE	8001-78-3	5.0 %

ITEM	EXPOSURE LIMITS				VP mmHg @68F	TOXICITY	
	ACGIH TLV-TWA ppm	ACGIH TLV-TWA Mg/M3	OSHA PEL-TWA ppm	OSHA PEL-TWA Mg/M3		LD50 g/kg	LC50 ppm
01	dna	0.05	dna	0.1	N.A.	dna	dna
02	dna	dna	dna	dna	N.A.	dna	dna
03	dna	dna	dna	dna	N.A.	dna	dna
04	dna	dna	dna	dna	N.A.	dna	dna

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

EXPOSURE LIMITS

ITEM	----- ACGIH -----		----- OSHA -----		VP	TOXICITY	
	TLV-TWA ppm	TLV-TWA Mg/M3	PEL-TWA ppm	PEL-TWA Mg/M3	mmHg @68F	LD50 g/kg	LC50 ppm
05	dna	3.0	dna	5.0	N.A.	dna	dna

REGULATORY: **CALIF.TITLE 26:22-12000 (PROP 65). WARNING: This product contains a chemical known to the State of California to cause cancer.
#CALIF.TITLE 26:22-12000 (PROP 65). WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. All ingredients are on TSCA inventory or are exempt. Toxic chemicals marked (SARA, CERCLA, HAPs) are subject to reporting requirements of SARA (40CFR 355 and 372), CERCLA (40CFR 302), or HAPs (40CFR 63).

(S)=Skin; LD50=Dermal.rabbit; LC50=Inhalation,rat; dna=data not available; na=not applicable

SECTION 3 - HAZARDS IDENTIFICATION

EXPOSURE EFFECTS: Vapor or spray mist or spattered material can be harmful. Irritating to eyes, skin, and if inhaled; to nose and throat. Excessive or prolonged inhalation can cause headache, nausea or dizziness.

OVER-EXPOSURE (prolonged or repeated use): CAN AGGRAVATE OR ACCENTUATE ANY OF THESE EFFECTS.

SKIN: Irritant. Severe burns. Sensitization or allergic reaction, such as rash or hives. Can be absorbed through skin.

INHALATION: Severe irritant. Lung injury. Repeated exposure to silica dust can cause silicosis. Crystalline silica may cause cancer. Risk of cancer depends on duration and level of exposure to dust from sanding surfaces or spray mist. High vapor concentrations may cause kidney and/or liver damage.

EYES: Severe irritant. Corneal injury. Irreversible burns and damage.

INGESTION: Can be fatal if swallowed. Aspiration into lungs can damage lungs and cause chemical pneumonia. Can cause burns.

TARGET ORGANS: Kidneys. Liver. Blood. Lungs. Skin. Eyes. Stomach. Reproductive organs.

MEDICAL CONDITIONS AGGRAVATED: Respiratory. Lungs.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT INHALATION INGESTION EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID PROCEDURES: INHALATION: Remove to fresh air. Restore normal breathing. Treat symptomatically. See physician. SKIN: Wash thoroughly with soap and water. Remove contaminated clothing.Consult physician if irritation persists. EYES: Flush immediately with plenty of water for at least 15 minutes and get medical attention. INGESTION: Drink 1 or 2 glasses of water to dilute. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult physician or poison control center IMMEDIATELY. Treat symptomatically. EYES: After flushing eyes for 15 minutes, get IMMEDIATE medical attention from an ophthalmologist.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 200 F (SETA)

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

FLAMMABILITY - OSHA: COMBUSTIBLE - CLASS IIIB

DOT: NOT REGULATED

EXTINGUISHING MEDIA: FOAM CO2 DRY CHEMICAL

LOWEST FLASHING SOLVENT:

UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when exposed to extreme heat and pressure buildup.

FIREFIGHTING PROCEDURES: Wear full protective equipment, self-contained breathing apparatus. Water may be used to cool closed containers to prevent pressure build-up or explosion when exposed to extreme heat.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

SPILL, LEAKS: Ventilate area. Use inert, absorbent cleanup materials. (DO NOT use sawdust.) Place in separate container. Keep out of sewers and waterways. If entry is threatened or occurs, notify local authorities.

SECTION 7 - HANDLING AND STORAGE

HANDLING AND STORAGE: Keep container closed, upright when not in use. Store in cool, dry, well-ventilated area. Avoid prolonged storage temperatures above 100F. Use caution when pouring. Avoid breathing sanding dust. Do not weld or flame cut on empty container.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: Implement administrative and engineering controls to reduce exposure. Provide sufficient ventilation in volume and pattern to keep air contaminant concentrations below the TLV limits. Remove welding or flame cutting decomposition products; follow current, ANSI Z49.1, "Safety in Welding and Cutting". Refer to 29 CFR parts 1910 and 1915, for coating operations; part 1910.146, Confined Spaces.

RESPIRATORY PROTECTION: Wear NIOSH/MSHA certified respirator designed to remove a combination of particulates (dust or spray mist) and vapor. When brushing, rolling or spreading; select the appropriate respiratory protection for the conditions. For specific conditions, refer to current "NIOSH Pocket Guide to Chemical Hazards". In confined or restricted ventilation areas use air-line respirators or hoods. Refer to 29 CFR, OSHA parts 1910.134 and 1915 for coating operations; part 1910.146 Confined Spaces; ANSI Z88.2, Practices for Respiratory Protection; 42 CFR, part 84 Particulate Respirators.

PROTECTIVE CLOTHING AND EQUIPMENT: Dependent upon application method, wear resistant coveralls, gloves and shoe coverings to prevent skin contact. Wear solvent resistant glasses with splash guards or face shield to protect eyes from splash, spatter and/or spray mist. Consult 29 CFR 1910.132, 133, 136, 138; ANSI Z87.1, Z41.

HYGIENIC PRACTICES: Wash thoroughly after handling and before eating, smoking or using toilet. Launder contaminated clothing before use. Destroy contaminated leather and absorbent shoes, which cannot be decontaminated, to prevent reuse.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE : N.A. VAPOR DENSITY : Is heavier than air
 ODOR : NA WEIGHT PER GAL : 11.5077
 APPEARANCE : LIQUID EVAPORATION RATE: Is slower than Butyl
 SOLUBILITY IN H2O : NC Acetate
 MIXED VOC, G/L : 0
 PHOTOCHEMICALLY REACTIVE: No
 VOLATILE VOLUME % : 0.00

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Heat, open flame, arc or sparks. Epoxies under uncontrolled conditions.

INCOMPATIBILITY: Strong oxidizers, acids and alkalies.

HAZARDOUS DECOMPOSITION PRODUCTS: (BY FIRE, BURNING OR WELDING); CO, CO2. Acrylic monomer fumes. ammonia

SECTION 10 - STABILITY AND REACTIVITY

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

TOXICOLOGICAL PROPERTIES: See Section 2. Crystalline silica (respirable size, 10 microns or less). IARC Monograph on the Evaluation of Carcinogenic Risk of Chemicals to Humans (Vol 68.1997) concludes that there is sufficient evidence of carcinogenicity to experimental animals and limited evidence of carcinogenicity to humans. - IARC Class 1.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

EPA Waste No.: None

DISPOSAL METHOD: Place in separate, appropriate, closed container in accordance with all applicable local, State, and Federal regulations. This material has NOT been tested by Toxicity Characteristic Leaching Procedure (TCLP).

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: PAINT RELATED MATERIAL

DOT HAZARD CLASS: 8 HAZARD SUBCLASS: NA

DOT UN/NA NUMBER: 3066 IMO: NA PACKING GROUP : NA

SECTION 15 - REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

SECTION 15 - REGULATORY INFORMATION

NEW JERSEY RIGHT-TO-KNOW:

The following materials are non-hazardous, but are among the top five components in this product:

----- CHEMICAL NAME ----- CAS NUMBER
No non hazardous materials are among the top five ingredients.

PENNSYLVANIA RIGHT-TO-KNOW:

The following non-hazardous ingredients are present in the product at greater than 3%:

----- CHEMICAL NAME ----- CAS NUMBER
No non-hazardous ingredients are present at greater than 3%.

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 16 headings.

CANADIAN WHMIS CLASS: No information available.

SECTION 16 - OTHER INFORMATION

NOTICE: Removal of old lead paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For additional information, contact the USEPA/Lead Information Hotline at 1-800-424-LEAD.