

MATERIAL SAFETY DATA SHEET

RAKA INC. 3490 Oleander Ave. Ft. Pierce Fl. 34982 Emergency Phone: 772-489-4070

MSDS for Three Raka Epoxy Curing Agents B Side

PRODUCT NAME: RAKA 610, 608 and 606 curing agents (hardeners).

Effective Date: 6-1-

2015

Product Code: RAKA 610, RAKA 608, RAKA 606, RAKA 260 Tropical

1. INGREDIENTS:

Polyamine Cas # 140-31-8 <

40%

Alkylphenol Cas #

25154-52-3 < 40%

Balance of ingredients are trade secrets:

Epoxy Additives and Modified Cycloaliphatic Amine Reaction Products: CAS#: Proprietary

This document is prepared pursuant to the OSHA Hazard Communication Standard

(29 CFR 1910.1200) in addition, other substances not hazardous per this OSHA Standard may be listed.

Where proprietary Ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: > 400°F

VAP PRESSURE: <1 mmHg@ 20°C, 68°F

VAP DENSITY: >1

SOL. IN WATER: Moderately soluble

SP. GRAVITY: 0.96

APPEARANCE: Pale straw-colored liquid ODOR: Amine odor.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASHPOINT: 200°F, 93°C METHOD USED: PMCC FLAMMABLE LIMITS

LFL: Not determined

UFL: Not determined EXTINGUISHING MEDIA: Water fog, alcohol foam, CO2, dry chemical. FIRE &

EXPLOSION HAZARDS: Use full protective clothing (see Section 8) FIRE-FIGHTING EQUIPMENT: Use a positive pressure, self-contained breathing apparatus.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Can react strongly with epoxy resins at elevated temperatures.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Epoxy resins under uncontrolled conditions.

HASARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides when burned. HAZARDOUS

POLYMERIZATION: Will not occur.

5. ENVIROMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Large spill—dike up and pump into appropriate containers. Small spill—use noncombustible absorbent material/sand and shovel into suitable containers. DISPOSAL

METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

6. HEALTH HAZARD DATA:

EYE: May cause severe corneal injury, which may result in permanent impairment of vision, even

blindness. Vapors may irritate eyes.

SKIN CONTACT: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic reactions.

SKIN ABSORPTION: A single prolonged exposure may result in the material being absorbed in harmful amounts. The LD50 for skin absorption in rabbits is 880 mg/kg.

INGESTION: Single dose oral toxicity is low. The oral LD50 for female rats is >1000mg/kg. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation to respiratory tract.

SYSTEMIC AND OTHER EFFECTS: Results of in vitro ("test tube") mutagenicity test have been negative.

7. FIRST AID:

EYES: Irrigation of the eye immediately with water for at least 30 minutes is required. Promptly seek medical attention. SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing, preferably under a safety shower. Seek medical attention

immediately. Avoid prolonged or repeated contact to skin. Wash thoroughly after handling. INGESTION:

Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility. INHALATION: Remove to fresh air if effects occur. Consult medical personnel.

NOTE TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and/or esophagoscopy control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE: None established.

VENTILATION: Control airborne concentration below the exposure guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline.

When respiratory protection is required for certain operations, use an approved air-purifying respirator.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and clothing before reuse. Contaminate leather items, such as shoes, belts and watchbands, should be removed and destroyed.

EYE PROTECTION: Use chemical goggles. If vapor causes eye irritation, use full-face respirator. Eye wash fountain should be located in immediate work area.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Ground all transfer equipment. Hold bulk storage under a nitrogen blanket. This product should not come in contact with copper or copper-bearing alloys. Good general housekeeping procedure should be followed.

10. NFPA HAZARD RATING:

(4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT) HEALTH - 2 FIRE - 1 REACTIVITY - 0 SPECIFIC - 0

11. REGULATORY INFORMATION:

STATUS ON SUBSTANCE LISTS:

The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specified) to be used for regulations. Trade Secrets are indicated by "TS".

FEDERAL EPA

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980

(CERCLA): Requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at level, which could require reporting under the statute are:

Chemical Name CAS Number % By Weight RO NONE

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SAR) TITLE III:

Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQS) in 40CFR 355. Components present in this product at level, which could require reporting under the statute are:

Chemical Name CAS Number % By Weight NONE

Sections 311-312 require products to be reviewed and applicable EPA Hazard Definitions are identified.

EPA HAZARD CLASSIFICATIONS:

Acute	Chronic	Fire	Pressure	Reactive
<u>Hazard</u>	<u>Hazard</u>	<u>Hazard</u>	<u>Hazard</u>	<u>Hazard</u>
Yes	Yes	No	No	No

Section 313 requires submission of annual reports of releases of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSD's that are copied and distributed for this material. Components present in this product at level, which could require reporting under the statute are:

Chemical Name CAS Number % By Weight NONE

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know

Hot line: 800-535-0202 or 202-4792449.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are contained on the chemical substance inventory list.

OTHER REGULATORY INFORMATION: D.O.T. Shipping Name: Not Regulated

The information herein is given in good faith, but no warranty expressed or implied is made.

SECTION 14 - TRANSPORT INFORMATION

DOT NON-BULK SHIPPING NAME RESIN COMPOUND-Not DOT Regulated. DOT BULK SHIPPING NAME RESIN COMPOUND-Not DOT Regulated. ICAO/IATA SHIPPING DATA RESIN COMPOUND-Not IATA Regulated. IMO SHIPPING DATA RESIN COMPOUND-Not IMO Regulated

SECTION 15 LABEL ELEMENTS

Labeling according to Regulations (EC) No 1272/2008

Hazard Pictograms:



Signal Word: DANGER

Hazard Statements:

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H361 - Suspected of damaging fertility or the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, vapors
P264 - Wash Skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention P310 - Immediately call a POISON CENTER or doctor/physician.
P330 - Rinse mouth
P363 - Wash contaminated clothing before reuse
P391 - Collect spillage P405 - Store locked up
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

MATERIAL SAFETY DATA SHEET

RAKA INC. Oleander Ave. Ft. Pierce, FL. 34982 Emergency Phone (772) 489-4070

PRODUCT NAME: RAKA EPOXY RESINS: 127, 900, 1500, UV Inhibited Part A, Tabletop Resin, Superfast Resin Effective Date: 6-1-2015

Product Code: Raka - 127, Raka - 900, Raka - Table Top, and Raka Superfast Resin

1. INGREDIENTS:

Reaction products of Epichlorohydrin and Bisphenol A	CAS # 025-085-99-8	>80%
Alkyl Glycidyl Ether	CAS # 068609-97-2	<20%
Benzyl Alcohol	CAS # 100-51 -6	<10%
The balance of materials are trade secrets	CAS # Proprietary	<5%

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances Not Hazardous per this OSHA Standard may be listed. Where proprietary ingredients are shown, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: not applicable

VAP PRESS: not applicable

VAP DENSITY: not applicable

SOL. In WATER: none

SP. GRAVITY: 1.12-1.14 APPEARANCE: straw colored liquid

3. FIRE AND EXPLOSION HAZARD DATA:

FLASHPOINT: 245 F

METHOD USED: PMCC FLAMMABLE LIMITS:

LFL: not applicable

UFL: not applicable EXTINGUISHING MEDIA: foam, CO2, dry chemical FIRE AND EXPLOSION HAZARDS: none

FIRE FIGHTING EQUIPMENT: Wear positive pressure self-contained breathing apparatus.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Excess heating over long periods of time degrades the resin. INCOMP AT ABILITY: (SPECIFIC MATERIALS TO AVOID) Base.

HAZARDOUS DECOMPOSITION PRODUCTS: The by-products expected in incomplete prolysis or combustion of epoxy resins Are mainly phenolics, carbon monoxide, and water. The thermal decompression products of epoxy resins therefore should be treated as potentially hazardous substance. Appropriate precautions should be taken.

5. ENVIROMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS / LEAKS: Soak up in absorbent material and collect in suitable containers. Residual may be removed using steam or hot soapy water.

DISPOSAL METHOD: Burn in adequate incinerator or bury in an approved landfill; in accordance with local, state, and federal regulations.

6. HEALTH HAZARD DATA:

EYE: Minor transient irritation, No corneal injury is likely.

SKIN CONTACT: May cause allergic skin reaction in susceptible individuals. Prolonged exposure not likely to cause significant skin irritation. Repeated exposure may cause skin irritation.

SKIN ABSORPTION: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. The LD50 for skin absorption in rabbits is 20,000 mg/kg.

INGESTION: Low acute oral toxicity; LD50 (rat) greater than 400 mg/kg. No hazards anticipated from ingestion incidental to industrial exposure.

INHALATION: Vapors are unlikely due to physical properties. Not a problem unless heated to high temperature.
SYSTEMIC AND OTHER EFFECTS: Except for skin sensitization, repeated exposure to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects. A poorly characterized sample of molecular weight epoxy resin of this type has been reported to produce skin cancer in a highly sensitive strain of mice. However, high levels of impurity compromise the validity of manufacturing processes is not believed to be a cancer hazard to humans. Results of mutagenicity tests in animals have been negative. It has been shown to be negative in some in vitro mutagenicity tests and positive in others.

7. FIRST AID:

EYES: Irrigation of the eye immediately with water for five minutes is good safety practice.
SKIN: Contact will probably cause no more than irritation. Wash off in flowing water or shower. Wash clothing before reuse. INGESTION: Remove to fresh air if effects occur. Consult medical personnel.
NOTE TO PHYSICIAN: No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

VENTILATION: Good room ventilation usually adequate for most operations. RESPIRATORY PROTECTION: None needed.
SKIN PROTECTION: For brief contact, no precautions other than clean body-covering clothing should be needed. Use impervious gloves when prolonged or frequently repeated contact could occur. EYE PROTECTION: Use chemical goggles.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Practice good caution and personnel cleanliness to avoid skin and eye contact. Avoid breathing vapors of heated material.

10. NFPA HAZARD RATING:

STATUS ON SUBSTANCE LISTS:

The concentrations shown in this document are maximum or ceiling levels (expressed in weight %, unless otherwise specific) to be used for regulations. Trade Secrets are indicated by "TS".

FEDERAL EPA

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA): Requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at level, which could require reporting under the statute are: Chemical Name CAS Number % By Weight NONE

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SAR) TITLE III:

Sections 301-304 require emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQS) in 40 CFR 355. Components present in this product at level, which could require reporting under the statute are: Chemical Name CAS Number % By Weight NONE

Sections 311-312 require products to be reviewed and applicable EPA Hazard Definitions be identified.

EPA HAZARD CLASSIFICATIONS:

Acute	Chronic	Fire	Pressure	Reactive
Hazard	Hazard	Hazard	Hazard	Hazard
No	No	No	No	No

Section 313 requires submission of annual reports of releases of toxic chemicals that appear in 40 CFR 372 (for

SARA 313). This information must be included in all MSD's that are copied and distributed for this material. Components present in this product at level, which could require reporting under the statute are: Chemical Name CAS Number % By Weight NONE

If you are unsure if you must report more information, call the EPA Emergency Planning and Right-To-Know Hot line: 800-535-0202 or 202-479-2449.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The components of this product are contained on the chemical substance inventory list.

OTHER REGULATORY INFORMATION: D.O.T. Shipping Name: Not Regulated

The information herein is given in good faith, but no warranty expressed or implied is made.

11. LABEL ELEMENTS:

Labeling according to Regulations (EC) No 1272/2008

Hazard Pictograms:



GHS07

Signal Word: WARNING

Hazard-determining components of labelling: Bisphenol A based Epoxy Resin

Hazard Statements:

H312: Harmful in contact with skin

H317: May cause an allergic skin reaction

H412: Harmful to aquatic life with long lasting effects

Precautionary Statements:

P264: Wash hands thoroughly after handling

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

P271: Use only in well ventilated area

P273: Avoid release to the environment

P280: Wear Protective gloves/protective clothing/eye protection/face protection

P337+P313: If eye irritation persist: Get medical advice/attention

P370+P378: In case of fire: Use for extinction: CO2, powder, or water spray

P302+P352: If on skin: Wash with plenty of soap and water

P391 Collect spillage

P304+P235: Store in well-ventilated place. Keep cool

P501: Dispose of contents/container in accordance with local/regional/national/international regulations

MATERIAL SAFETY DATA SHEET

RAKA INC. 3490 Oleander Ave. Ft. Pierce Fl. 34982 Emergency Phone: 772-489-4070

PRODUCT NAME: RAKA Table Top Hardener Effective Date: 6-1-2015

Product Code: Raka Table Top Hardener

1. INGREDIENTS:

Polyamine Cas # 140-31-8 <40% Alkylphenol Cas # 25154-52-3 < 40%

Balance of ingredients are trade secrets:

Epoxy Additives and Modified Cycloaliphatic Amine Reaction Products: CAS#: Proprietary

This document is prepared pursuant to the OSHA Hazard Communication Standard

(29 CFR 1910.1200) in addition, other substances not hazardous per this OSHA Standard may be listed.

Where proprietary Ingredient shows, the identity may be made available as provided in this standard.

2. PHYSICAL DATA:

BOILING POINT: > 400°F

VAP PRESSURE: <1 mmHg@ 20°C, 68°F

VAP DENSITY: >1

SOL. IN WATER: Moderately soluble

SP. GRAVITY: 0.96

APPEARANCE: Pale straw colored liquid ODOR: Amine odor.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASHPOINT: 200°F, 93°C METHOD USED: PMCC FLAMMABLE LIMITS

LFL: Not determined

UFL: Not determined EXTINGUISHING MEDIA: Water fog, alcohol foam, CO2, dry chemical. FIRE & EXPLOSION

HAZARDS: Use full protective clothing (see Section 8) FIRE-FIGHTING EQUIPMENT: Use a positive pressure, self-contained breathing apparatus.

4. REACTIVITY DATA:

STABILITY: (CONDITIONS TO AVOID) Can react strongly with epoxy resins at elevated temperatures.

INCOMPATIBILITY: (SPECIFIC MATERIALS TO AVOID) Epoxy resins under uncontrolled conditions. HAZARDOUS

DECOMPOSITION PRODUCTS: Nitrogen oxides when burned. HAZARDOUS POLYMERIZATION: Will not occur.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Large spill—dike up and pump into appropriate containers. Small spill—use non combustible absorbent material/sand and shovel into suitable containers. DISPOSAL METHOD: Large quantities should be recovered. Collect small quantities in waste metal drums for removal to an approved landfill, or incinerate in accordance with local, state, and federal regulations.

6. HEALTH HAZARD DATA:

EYE: May cause severe corneal injury, which may result in permanent impairment of vision, even blindness. Vapors may irritate eyes.

SKIN CONTACT: May cause severe injury to skin following prolonged or repeated contact, and may cause skin sensitization or other allergic reactions.

SKIN ABSORPTION: A single prolonged exposure may result in the material being absorbed in harmful amounts. The LD50 for skin absorption in rabbits is 880 mg/kg.

INGESTION: Single dose oral toxicity is low. The oral LD50 for female rats is >1000mg/kg. Ingestion may cause gastrointestinal irritation or ulceration. Ingestion may cause burns of mouth and throat.

INHALATION: May cause respiratory sensitization or asthma in susceptible individuals. Excessive exposure may cause irritation to respiratory tract.

SYSTEMIC AND OTHER EFFECTS: Results of in vitro ("test tube") mutagenicity test have been negative.

7. FIRST AID:

EYES: Irrigation of the eye immediately with water for at least 30 minutes is required. Promptly seek medical attention. SKIN: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated

clothing, preferably under a safety shower. Seek medical attention immediately. Avoid prolonged or repeated contact to skin. Wash thoroughly after handling. INGESTION: Do not induce vomiting. Give large amounts of water or milk if available and transport to medical facility. INHALATION: Remove to fresh air if effects occur. Consult medical personnel.

NOTE TO PHYSICIAN: Corrosive. May cause stricture. If lavage is performed, suggest endotracheal and /or esophagosopic control. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Supportive care. Treatment based on judgment of the physician in response to reactions of the patient.

8. HANDLING PRECAUTIONS:

EXPOSURE GUIDELINE: None established.

VENTILATION: Control airborne concentration below the exposure guideline. Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator.

SKIN PROTECTION: Use protective clothing impervious to this material. Selection of specific items such as gloves, boots, apron, or full-body suit will depend on operation. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and clothing before reuse. Contaminate leather items, such as shoes, belts and watchbands, should be removed and destroyed.

EYE PROTECTION: Use chemical goggles. If vapor causes eye irritation, use full-face respirator. Eye wash fountain should be located in immediate work area.

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Ground all transfer equipment. Hold bulk storage under a nitrogen blanket. This product should not come in contact with copper or copper-bearing alloys. Good general housekeeping procedure should be followed.

10. NFPA HAZARD RATING:

(4 = EXTREME 3 = HIGH 2 = MODERATE 1 = SLIGHT 0 = INSIGNIFICANT) HEALTH - 2 FIRE - 1 REACTIVITY - 0 SPECIFIC - 0

11. REGULATORY INFORMATION:

STATUS ON SUBSTANCE LISTS:

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Chemical Name CAS Number % By Weight RO NONE

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Chemical Name CAS Number % By Weight NONE

Sections 311-312 require products to be reviewed and applicable EPA Hazard Definitions are identified.

EPA HAZARD CLASSIFICATIONS:

Acute Chronic Fire Pressure Reactive

Hazard Hazard Hazard Hazard Hazard

Yes Yes No No No

Section 313 requires submission of annual reports of releases of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSD's that are copied and distributed for this material.

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SECTION 15 LABEL ELEMENTS

Labeling according to Regulations (EC) No 1272/2008

Hazard Pictograms:



Signal Word: DANGER

Hazard Statements:

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H361 - Suspected of damaging fertility or the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, vapors
P264 - Wash Skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention P310 - Immediately call a POISON CENTER or doctor/physician.
P330 - Rinse mouth
P363 - Wash contaminated clothing before reuse
P391 - Collect spillage P405 - Store locked up
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

MATERIAL SAFETY DATA SHEET

SECTION 1 - MATERIAL IDENTIFICATION

PRODUCT NAME: Raka UV Inhibited Part B Slow/Fast
Ave. Ft. Pierce, Fl. 34982

ADDRESS: RAKA INC. 3490 Oleander

MANUFACTURER: RAKA INC.

MSDS REVISION NUMBER: 1

TELEPHONE NUMBER: (772)489-4070

DATE PREPARED: 6-1-2015

EMERGENCY OVERVIEW

HMIS HEALTH RATING 2 FLAMMABILITY 1 REACTIVITY 0

PHYSICAL FORM Mobile Liquid

COLOR Amber

ODOR Ammoniacal

HAZARDS Moderate eye irritant. Moderate respiratory tract irritant. Moderate skin irritant. May cause skin sensitization.

EXTINGUISHING MEDIA Ignition will give rise to a Class B fire. In case of large fire, use: Alcohol Foam, Water Spray. In case of small fire, use: CO2, Dry Chemical, Dry Sand, or Limestone.

C.A.S. CHEMICAL NAME Mixture

EMPIRICAL FORMULA Mixture

SYNONYMS None

INTENDED USE Curing Agent

CHEMICAL FAMILY Cycloaliphatic Amine SECTION

2 – INGREDIENTS

#	%	CAS Number and Chemical Name
1.	> 25.00	100-51-6 BENZYL ALCOHOL
2.	<5.00	1761-71-3 METHYLENEBIS(CYCLOHEXANAMINE), 4,4' - COMPONENTS ARE TRADE SECRETS.

OSHA (ACGIH) EXPOSURE LIMITS

TWA		STEL		CEILING	
ppm	mg/m3	ppm	mg/m3	ppm	mg/m3
1. OSHA N/E	N/E	N/E	N/E	N/E	N/E
ACGIH N/E	N/E	N/E	N/E	N/E	N/E
2. OSHA N/E	N/E	N/E	N/E	N/E	N/E
ACGIH N/E	N/E	N/E	N/E	N/E	N/E

N/E = Not Established.

SECTION 3 – HEALTH HAZARDS

ROUTES OF EXPOSURE

Eye Contact

TARGET ORGANS

Eye

Skin Contact

Skin

Ingestion

sensitization.

HEALTH HAZARDS

Moderate eye irritant.

Moderate skin irritant.

May cause skin

Skin Absorption EXPOSURE STANDARDS

No standards established for the product. Maintain air contaminant concentrations in the workplace at the lowest feasible levels. SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Contact with the skin may cause dryness (defeating), itching, and/or rash. Inhalation of mists may cause irritation

Raka UV Inhibited Part B Slow/Fast

in the respiratory tract. Contact

with the skin or eyes causes moderate eye and skin irritation, redness and discomfort which is transient. Coughing and chest pain may result.

Product is absorbed through the skin and may cause nausea, headache and general discomfort. **SIGNS AND SYMPTOMS OF EXPOSURE (Possible Long Term Effects)**

Repeated and/or prolonged exposure may cause allergic reaction/sensitization. Repeated and/or prolonged exposures may result in: adverse eye

effects (such as conjunctivitis or corneal damage), adverse skin effects (such as defeating, rash, or irritation).

Dryness of nasal passages may be

experienced when material is inhaled over a long period of time. **MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

Eye disease

Skin disorders and allergies **CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER**

This product contains no carcinogens in concentration of 0.1 percent or greater.

SECTION 4 - FIRST AID EYE CONTACT

Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

SKIN CONTACT

Remove product and immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and shoes. Seek medical advice. Launder contaminated clothing prior to reuse. **INHALATION**

Move patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth).

Prevent aspiration of vomit. Turn victim's head to the side. Seek medical advice. **INGESTION**

If swallowed, call a physician immediately. Note to Physicians: Remove stomach contents by gastric suction or induce vomiting only as directed

by medical personnel. Never give anything by mouth to an unconscious person.

SECTION 5 – FIRE AND EXPLOSION DATA FLASH POINT (closed cup) 103.89 C (219)F UPPER EXPLOSION LIMIT (UEL) No data LOWER EXPLOSION LIMIT (LEL) No data AUTOIGNITION TEMPERATURE No data FIRE HAZARD CLASSIFICATION (OSHA/NFPA)

Class IIIB

EXTINGUISHING MEDIA

Ignition will give rise to a Class B fire. In case of large fore use: Water Spray, Alcohol Foam. In case of small fire use: Carbon Dioxide (CO₂),

Dry chemical, dry sand or limestone. **SPECIAL FIRE FIGHTING PROCEDURES**

Firefighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

May generate toxic or irritating combustion products. May generate carbon monoxide gas. May generate toxic nitrogen oxide gases. May generate ammonia gas.

SECTION 6 - ACCIDENTAL RELEASE MEASURES CANTAMINENT TECHNIQUES

(Removal of ignition sources, diking etc.) Stop the leak, if possible. Reduce vapor spreading with a water spray.

Shut off or remove all ignition sources. Construct a dike to prevent spreading. **CLEAN-UP PROCEDURES**

If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent (sodium bisulfate) and place in a container or dumpster pending

disposal. Flush area with water spray. Clean-up personnel must be equipped with self-contained breathing apparatus and butyl rubber protective

clothing. For large spills, recover spilled material with a vacuum truck. **OTHER EMERGENCY ADVICE**

Wear protective clothing, boots, gloves, and eye protections

SECTION 7 - HANDLING AND STORAGE

STORAGE Keep away from: acids, alkalis, and oxidizers. Keep in cool, dry, ventilated storage and in closed

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containers. Store in steel containers

located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in iron or other reactive metal containers. HANDLING Avoid with skin or eyes. When handling, do not drink, or smoke.

SECTION 8 - PERSONAL PROTECTION/EXPOSURE CONTROLS

EYE PROTECTION

Splash proof goggles. In emergency, use goggles with a full-face shield. or cuffed butyl gloves.

RESPIRATORY PROTECTION

Not required under normal clothing.

WORK AND HYGENIC PRACTICES

Provide accessible eye wash stations and safety showers.
Wash at end of each workshift. Use appropriate skin lotion.
Discard contaminated leather articles.

HAND PROTECTION

Neoprene rubber, impermeable,

PROTECTIVE CLOTHING

Long sleeved clothing.

SECTION 9 - TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM	Mobile liquid	COLOR	Amber
ODOR	Ammoniacal	ph	Alkaline
VAPOR PRESSURE	(MM Hg at 21C (70F))	0.70	
VAPOR DENSITY	(Air=1)	No Data	
BOILING POINT	222.00 C (431.60 F)		
MELTING POINT	No Data		
SOLUBILITY IN WATER	Slight (0.1-1 %)		
SPECIFIC GRAVITY	(Water =1)	1.06	
MOLECULAR WEIGHT	Mixture		

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY Stable
INCOMPATIBILITY (Materials to avoid) Mineral acids (i.e. sulfuric, phosphoric, etc.). Alkalis (i.e. sodium or potassium hydroxide etc.). Organic acids (i.e. acetic acid, citric acid, etc.). oxidizing agents (i.e. perchlorates, nitrates, etc.) Reactive metals (i.e. sodium, calcium, zinc, etc.). Sodium or Calcium Hypochlorite. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmospheres with high nitrous oxide concentrations. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Amine reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. Nitrates, nitrosating agents. A reaction accompanies by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating or reaction with other materials).

Carbon monoxide in a fire. Carbon dioxide in a fire. Ammonia when heated. Nitrogen oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Nitrosamines and Aldehydes. Organic acid vapors.

Nitrogen oxide can react with water vapors to form corrosive nitric acid. **HAZARDOUS POLYMERIZATION** Will not occur.

SECTION 11 - TOXICOLOGICAL PROPERTIES

ACUTE ORAL TOXICITY (LD 50, RAT) > 1000.00mg/kg (no deaths) (estimate)
CHRONIC/SUBCHRONIC DATA
Allergic sensitization in humans. **ACUTE DERMAL TOXICITY** (LD50, RABBIT) > 2000.00mg/kg (no deaths) (estimate)
ACUTE INHALATION TOXICITY (LC50, RAT) No data
IRRITATION EFFECTS DATA Moderate irritation to the skin of a rabbit.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity no data
Environmental Fate no data
present long term enviro hazards.

Additional Information waste may

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SECTION 13-DISPOSAL CONDERATIONS

WASTE DISPOSAL Comply with all Federal, State and Local Regulations.

SECTION 14 - TRANSPORT INFORMATION

DOT NON-BULK SHIPPING NAME RESIN COMPOUND-Not DOT Regulated. DOT BULK SHIPPING NAME RESIN COMPOUND-Not DOT Regulated. ICAO/IATA SHIPPING DATA RESIN COMPOUND-Not LATA Regulated. IMO SHIPPING DATA RESIN COMPOUND-Not IMO Regulated

SECTION 15 LABEL ELEMENTS

Labeling according to Regulations (EC) No 1272/2008

Hazard Pictograms:



Signal Word: DANGER

Hazard Statements:

H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H361 - Suspected of damaging fertility or the unborn child
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements:

P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P260 - Do not breathe mist, vapors
P264 - Wash Skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P301+P312 - If swallowed: Call a POISON CENTER or doctor/physician if you feel unwell
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention P310 - Immediately call a POISON CENTER or doctor/physician.
P330 - Rinse mouth
P363 - Wash contaminated clothing before reuse
P391 - Collect spillage P405 - Store locked up
P501 - Dispose of contents/container in accordance with local, regional, national, and/or international regulations.