



**Globally Proven
Construction Solutions**

Safety Data Sheet

1. PRODUCT IDENTIFICATION

TRADE NAME (as labeled): SPECTRALOCK® 2000 IG Part A

CHEMICAL FAMILY: Amine epoxy hardener

MANUFACTURER'S/ DISTRIBUTOR'S NAME: LATICRETE South East Asia Pte Ltd
(Level2, A3)
38 Sungei Kadut, Street 2
Singapore 729245

Phone number for additional information: (65) 6515 3028

Date prepared or revised: 25/03/2015

2. COMPOSITION INGREDIENTS

CHEMICAL NAMES	CAS NUMBERS	PERCENT	ACGIH TLV	OSHS PEL	OTHER (SPECIFY)
Fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	70-80	N/A	N/A	N/A
Tetraethylenepentamine	112-57-2	5-15	N/A	N/A	N/A
2-Piperazin-1-ylethylamine	140-31-8	0-10	N/A	N/A	N/A
Benzyl alcohol	100-51-6	1-5	N/A	N/A	N/A
Isophorone diamine	2855-13-2	1-5	N/A	N/A	N/A
Solvent naphtha (petroleum), light aromatic	64742-95-6	0.1-1	N/A	N/A	N/A
Nonylphenol	84852-15-3	0.01-1	N/A	N/A	N/A



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3. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled : Can cause severe eye, skin and respiratory tract burns. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure.

Contact with skin or eyes : Causes eye burns. May cause blindness. Severe eye irritation

Absorbed through skin : causes skin burns. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties.

Swallowed : Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion breathing difficulties. Severe cases of overexposures can result in respiratory failure.

Chronic Health Hazard : This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in

SUSPECTED CANCER AGENT?

NO: This product's ingredients are not found in the lists.

YES : _____ Federal OSHA NTP IARC

4. FIRST AID: EMERGENCY PROCEDURES

Eye Contact : Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.

Skin Contact : Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour. Cover wound with sterile dressing. Take off contaminated clothing and shoe immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in



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treating skin irritation.

Inhaled : Remove to fresh air. Seek medical attention if necessary

Swallowed : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Prevent aspiration of vomit. Turn victim's head to the side.

5. FIRE FIGHTING MEASURES

Auto ignition temperature, °F : N/A

Flammable limits in air, volume % : Lower (LEL): _____ Upper (UEL): _____
 Carbon dioxide, foam (alcohol resistant), dry chemical, other

Fire extinguishing materials : (limestone powder, sand)
 May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high
 Unusual fire and explosion hazards : oxides of nitrogen (NO_x) is to be expected. Do not allow run-off from fire fighting to enter drain of water courses. Burning produces noxious and toxic fumes. Downwind personnel must be evacuated.

Special fire fighting procedures : Wear positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

Environmental precautions : Construct a dike to prevent spreading.

Methods for cleanup : Approach suspected leak areas with caution. Contact LATICRETE for advice. Place in appropriate chemical waste container.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.



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7. HANDLING AND STORAGE

Handling : Avoid contact with skin and eyes. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Avoid contact eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage : keep away from: acids, oxidizers. Keep in cool, dry, ventilated storage and in closed containers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Ventilation and engineering controls : Normal for properly ventilated areas.
- Respiratory protection (type) : Not required for properly ventilated areas.
- Eye protection (type) : Full face shield with goggles underneath. Chemical resistant goggles must be worn.
- Gloves (specify material) : Impervious gloves: butyl-rubber, nitrile rubber, Butyl-rubber, PVC disposables. The breakthrough time of the selected glove(s) must be greater than the intended use period.
- Other clothing and equipment : Long sleeved impervious clothing, full rubber suit (rain gear), rubber or plastic boots, slicker suit.
- Work practices, hygienic practices : Normal good housekeeping
- Other handling and storage requirements : N/A
- Protective measures during maintenance of contaminated equipment : See above.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor density (air=1) : N/A

Melting point or range, °F : >32



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Specific gravity	: 1.1g/cc	
Boiling point or range, °F	: >385	
Solubility in water	: soluble	
Evaporation rate (butyl acetate = 1)	: N/A	
Vapor pressure, mmHg at 20°C	: <2.00 mmHg at 21°C	VOC 0 lb/gal
Appearance and odor	: Viscous, cloudy, light brown liquid with ammoniac odor	

HOW TO DETECT THIS SUBSTANCE (warning properties of substance as a gas, vapor, dust, or mist)

10. STABILITY AND REACTIVITY

Stability : Stable

Mineral acids (i.e. sulfuric, phosphoric, etc.)
 Organic acids, (i.e. acetic acid, citric acid etc.).
 Oxidizing agents (i.e. perchlorate nitrates etc.).
 Sodium or Calcium Hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possible creating and explosion. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating and explosion. A reaction accompanied 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.

Incompatibility (material to avoid) :



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Hazardous decomposition product (including combustion products) : Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV = 2ppm). Carbon Monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperature. Nitric acid in a fire. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

Hazardous polymerization : Will Not occur

Conditions to avoid : N/A

11. TOXICOLOGY INFORMATION

Acute Oral Toxicity (LD50, RAT) > 500mg/kg

Acute Inhalation Toxicity (LC50 (1h), Rat) > 20mg/l

Acute Dermal Toxicity (LD50, Rabbit) > 2000 mg/kg

Severe eye irritation.

Severe skin irritation. May cause sensitization by skin contact. Sensitization has occurred in laboratory animals after repeated exposures.

The product or a component may be mutagenic, the data is inconclusive. Mixed polycycloaliphatic amines was tested in rats for systemic effects in a Subchronic (28-days) oral study at doses ranging from 15 to 300 mg/kg/day. Effects seen at 300mg/kg/day included decreased survival, decreased body weight gain, increased liver, kidney, and adrenal weights and histological changes in the liver, kidney, adrenals and spleen. The No-Observed-Adverse-Effect-Level (NOAEL) was 400mg/kg. No evidence of carcinogenicity was seen in a two-year study with rats and mice.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity : no data is available on the product

Toxicity to fish - components



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Nonylphenol : LC50 0.128mg/l 96 hours Fathead minnow

Toxicity to daphnia - components

Nonylphenol : EC50 0.0848 mg/l 48 hours Fathead minnow

Nonylphenol : EC50 0.19 mg/l 48 hours Fathead minnow

Toxicity to other organisms

Diethylenetriamine : Acute LC50 1.014mg/l 96 hours Guppy

4,4

Isopropylidenediphenol : Acute LC50 4.6 mg/l 96 hours Fathead minnow

Persistence in degradability

Mobility : No data available

Bioaccumulation : no data is available on the product itself

Bioaccumulation - components

Formaldehyde, polymer

with Benzenamine, : Does not bioaccumulate

hydrogenated Nonylphenol

Nonylphenol : moderate bioaccumulation potential

13. DISPOSAL CONSIDERATIONS

Dispose in compliance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

DOT

Proper shipping name : Amines, Liquid, corrosive, n.o.s
(Cycloaliphatic amine, nonylphenol)

Class : 8

UN/ID No : UN2735

Packing group : III

Corrosive Liquids in Packing Group III in Inner Packing's not over 5.0 liter (1.3 Gallons) net capacity each for liquids may be classification as ORM-D

IATA

Proper shipping name : Amines, Liquid, corrosive, n.o.s
(Cycloaliphatic amine, nonylphenol)

Class : 8

UN/ID No : UN2735

Packing group : III



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IMDG

Proper shipping name : Amines, Liquid, corrosive, n.o.s
 (Cycloaliphatic amine, nonylphenol)
 Class : 8
 UN/ID No : UN2735
 Packing group : III

TDG

Proper shipping name : Amines, Liquid, corrosive, n.o.s
 (Cycloaliphatic amine, nonylphenol)
 Class : 8
 UN/ID No : UN2735
 Packing group : III

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard (29 DFR 1910, 2300) Hazard Class(es)

Corrosive, Sensitizer.

All ingredients are listed on the US EPA TSCA inventory of chemical substances.

EU EINECS inventory of chemical substances

Canada DSL inventory of chemical substances

Australia AICS inventory of chemical substances

Japan ENCS inventory of chemical substances

China SEPA inventory of chemical substances

Philippines PICCS inventory of chemical substances

EPA SARA Title II Section 312 (40 CFR 370) Hazard Classification -

Acute Health Hazard Chronic Health Hazard

EPA SARA Title II Section 313 (40 CFR 372) Components(s) above 'de minimus' level -

None



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US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to state of California of cause cancer, both defects and any other harm.

WHMIS Hazard Classification

Toxic Material Causing other toxic effects, corrosive Material

16. OTHER INFORMATION

HMIS Rating

Health : 3

Flammability : 1

Physical Hazard : 0

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1. PRODUCT IDENTIFICATION

TRADE NAME (as labeled): SPECTRALOCK ® 2000 IG Part B

CHEMICAL FAMILY: Epoxy Resin

MANUFACTURER'S/ DISTRIBUTOR'S NAME: LATICRETE South East Asia Pte Ltd
(Level2, A3)
38 Sungei Kadut, Street 2
Singapore 729245

Phone number for additional information: (65) 6515 3028

Date prepared or revised: 25/03/2015

2. COMPOSITION INGREDIENTS

CHEMICAL NAMES	CAS NUMBERS	PERCENT	ACGIH TLV	OSHS PEL	OTHER (SPECIFY)
Bisphenol F Resin	9003-36-5	54-79	N/A	N/A	N/A
Bisphenol A Resin	25068-38-6	6-12	N/A	N/A	N/A

3. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure. (Possible Longer Term Effects) None Known

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Inhaled: May cause irritation of respiratory tract

Contact with skin or eyes: Minor transient irritation for eye contact. No corneal injury likely. May cause allergic skin reaction. Prolonged exposure not likely to cause skin irritation. Skin sensitizer.

SUSPECTED CANCER AGENT?



NO: This product's ingredients are not found in the lists.



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YES: _____ Federal OSHA _____ NTP _____ IARC

4. FIRST AID: EMERGENCY PROCEDURES

Eye : Hold eyelids apart and immediately flush eyes with plenty of water for at least
Contact : 15 minutes. Get medical attention immediately.

Skin : Wash off in flowing water or shower for at least 15 minutes. Seek medical
Contact : attention. Wash clothing before reuse.

Inhaled : If inhaled, remove to fresh air. If effects occur consult a physician.

Swallowed: Do not induce vomiting. Immediately give at least 3 – 4 glasses of water. Call a physician.

5. FIRE FIGHTING MEASURES

Flash Point method : >200 °F
Auto ignition temperature, °F : N/A

Flammable limits in air, volume % : Lower (LEL): _____ Upper (UEL): _____

Fire extinguishing materials : Water spray, Carbon dioxide, foam , dry chemical
Unusual fire and explosion hazards : Decomposition & combustion products may be toxic

Special fire fighting procedures : Wear positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Spill response procedures (include employee protection measure): Soak up in absorbent material or scrape up. Residual can be removed with hot water and a nonionic surfactant. Wear goggles, rubber gloves, long sleeve clothing.

Preparing wastes for disposal (container types, neutralization, etc): Burn in adequate incinerator or bury in an approved landfill.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.



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7. HANDLING AND STORAGE

Store in cool dry area

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Ventilation and engineering controls	:	Good room ventilation should be adequate for most operations
Respiratory protection (type)	:	None normally needed
Eye protection (type)	:	Chemical splash proof goggles, safety glasses
Gloves (specify material)	:	Rubber or polyethylene gloves
Other clothing and equipment	:	Clean, body-covering clothing
Work practices, hygienic practices	:	N/A
Other handling and storage requirements	:	N/A
Protective measures during maintenance of contaminated equipment	:	See above.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor density (air=1)	:	N/A
Melting point or range, °F	:	N/A
Specific gravity	:	1.17
Boiling point or range, °F	:	N/A
Solubility in water	:	insoluble
Evaporation rate (butyl acetate = 1)	:	N/A
Vapor pressure, mmHg at 20°C	:	N/A
Appearance and odor	:	thick opaque liquid

HOW TO DETECT THIS SUBSTANCE (warning properties of substance as a gas, vapor, dust, or mist) : N/A



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10. STABILITY AND REACTIVITY

Stability	:	Stable
Condition to avoid	:	Excess heating over long periods of time degrades the resin.
Incompatibility (material to avoid)	:	Strong oxidizing agents
Hazardous decomposition product (including combustion products)	:	(From burning, heating, or reaction with other materials). Carbon monoxide, carbon dioxide, aldehydes.
Hazardous polymerization	:	Will Not occur
Conditions to avoid	:	Masses of more than 1 pound plus an aliphatic amine will cause irreversible polymerization with considerable heat build up.

11. TOXICOLOGY INFORMATION

Acute Oral (LD50) Rat greater than 5000mg/kg

Acute Dermal (LD50) Rabbit greater than 3000mg/kg

Inhalation Toxicity (LC 50) Rat >1.7mg/l for a 4 hour aerosol exposure (maximum concentration attained.)

Mutagen city Ames Test with and without microsomal activation: Positive

12. ECOLOGICAL INFORMATION

None Known

13. DISPOSAL CONSIDERATIONS

Dispose in compliance with local, state, and federal regulations.



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14. TRANSPORT INFORMATION

No special labeling or transportation placarding is required.

15. REGULATORY INFORMATION

All ingredients are listed on the US EPA TSCA inventory of chemical substances.

This product does not contain any chemicals known to state of California of cause cancer, both defects and any other harm.

16. OTHER INFORMATION

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1. PRODUCT IDENTIFICATION

TRADE NAME (as labeled): SPECTRALOCK® 2000 IG Part C

CHEMICAL FAMILY: Proprietary Blend

MANUFACTURER'S/ DISTRIBUTOR'S NAME: LATICRETE South East Asia Pte Ltd
38 Sungei Kadut,
Street 2 (Level2 A3),
Singapore 729245.

Phone number for additional information: (65) 6515 3028

Date prepared or revised: 25/03/2015

2. COMPOSITION INGREDIENTS

CHEMICAL NAMES	CAS NUMBERS	PERCENT	ACGIH TLV	OSHS PEL	OTHER (SPECIFY)
Silica Sand	14808-60-7	50-90	50 micro g/m ³	10 mg/m ³	N/A
Aluminium Oxide	1344-28-1	0-4	10 mg/m ³	15 mg/m ³	N/A
Titanium Dioxide	13463-67-7	0-12	10 mg/m ³	15 mg/m ³	N/A

3. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure. (Possible Longer Term Effects) None Known

Inhaled : Symptoms are dyspnea-caused by many lung scars that develop from the dust-pain in chest, decreased vital Chronic lung scarring leads to a progressive massive fibrosis that is often accompanied by increased susceptibility to the risk of impaired health due to a combination of smoking and dust exposure. Persons with reduced pulmonary function may be at increase risk.

Capacity and cough. Inhalation of the dust can cause silicosis and may cause ling cancer depending on duration and level of exposure. Persons with reduced pulmonary function may be at increased risk.



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SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects) Eye contact may cause eye irritation. Inhalation of dust may cause lung irritation.

SUSPECTED CANCER AGENT?

NO : This product's ingredients are not found in the lists.

YES : _____ Federal OSHA _____ NTP _____ X IARC

4. FIRST AID: EMERGENCY PROCEDURES

Eye Contact : Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Skin Contact : If irritation occurs, remove affected clothing and wash the skin exposed.

Inhaled : Remove to fresh area. For extreme respiratory distress, administer oxygen.

Swallowed Refer to physician

5. FIRE FIGHTING MEASURES

Flash Point method : Non Flammable or combustible

Auto ignition temperature, °F : N/A

Flammable limits in air, volume % : Lower (LEL): _____ Upper (UEL): _____

Fire extinguishing materials : Water spray, Carbon dioxide, foam , dry chemical

Unusual fire and explosion hazards : This product may form explosive dust clouds in air

Special fire fighting procedures : Wear self-contained breathing apparatus with full face piece and protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Spill response procedures (include employee protection measures): Clean up with dustless methods (use vacuum or wet sweeping). Wear NIOSH approved dust mask, safety glasses, gloves.



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HOW TO DETECT THIS SUBSTANCE (warning properties of substance as a gas, vapor, dust, or mist) : N/A

10. STABILITY AND REACTIVITY

- Stability : Stable
- Condition to avoid : N/A
- Incompatibility (material to avoid) : Exposure to hydrofluoric acid or strong alkalis or oxidizers.
- Hazardous decomposition product (including combustion products) : (From burning, heating, or reaction with other materials). May release Carbon monoxide, carbon dioxide, nitrogen oxide, ammonia upon combustion.
- Hazardous polymerization : Will Not occur
- Conditions to avoid : Exposure to strong oxidizers or alkalis.

11. TOXICOLOGY INFORMATION

N/A

12. ECOLOGICAL INFORMATION

N/A

13. DISPOSAL CONSIDERATIONS

Dispose in compliance with local, state, and federal regulations.

14. TRANSPORT INFORMATION

No special labeling or transportation placarding is required.

15. REGULATORY INFORMATION

All ingredients are listed on the US EPA TSCA inventory of chemical substances.



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This product does not contain any chemicals known to state of California of cause cancer or reproductive harm

HMIS Ratings Health – 2 Flammability – 0 Reactivity – 0 Personal Protections - E

16. OTHER INFORMATION

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