

Material Safety Data Sheet



CERAFIX

SSANGKOM PTY LTD

Version: 6

Issue Date: 13/07/20017
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SECTION 1 Chemical Product and Company Identification

Product Identification

Product name	CERAFIX
Use of Product	Adhesive and sealant

Company Identification

Registered company name	SSANGKOM PTY LTD
Address	29 Annie Street, Coopers Plains QLD 4108
Department	Technical Research Institute
Website	www.ssangkom.com.au

Emergency telephone number

For Korea	82-31-768-3030 / 82-80-768-3030
For Australia	AUSTRALIAN POISONS INFORMATION CENTRE: 13 11 26 (24 HOUR SERVICE), 000 (POLICE OR FIRE BRIGADE)

SECTION 2 Hazards Identification

A. Hazards, Risks Classification of Substance

Skin Corrosion / Irritation	Category 2
Serious Eye Damage	Category 2B

B. Warning Signs Elements including Precaution Phrase

▶ Pictograph:



▶ Signal word: Warning

▶ Hazard and risk statements:

H315 Causes skin irritation.

H320: Causes eye irritation

▶ Precautionary statement(s) Prevention

P264: Thoroughly wash the contact body part after handling.

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

▶ Precautionary statement(s) Response

P302+P352: If on skin: Rinse with plenty of water.

P305+P351+P338: If in eyes: Rinse cautiously with water for a few minutes. If possible, remove contact lenses.

Keep washing up.

P321: Take emergency measures.

P332+P313: If skin irritation occurs: Seek medical attention/advice.

P337+P313: If eye irritation occurs: Seek medical attention/advice.

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

▶ Precautionary statement(s) Storage

NONE03: Not applicable

▶ Precautionary statement(s) Disposal

NONE04: Not applicable

C. Other hazards and risks not included in the criteria for classification of hazards and risks.

NFPA Grade (0~4 Step)

Chemical Substance Name	Health Care	Fire	Reactivity
Water	0	0	0



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Acryl Easter Copolymer	1	1	0
Calciumcarbonate	0	0	0
S1 (Trade Secret)	0	0	0

SECTION 3 Composition Name and Content

Name	CAS No.	Content (%)	Remarks
Water	7732-18-5	20-30	
Acryl Easter Copolymer		12-22	
Calciumcarbonate	1317-65-3	45-55	
S1 (Trade Secret)		0-1	

SECTION 4 First Aid Measures**A. When it gets into your eyes:**

- ▶ If in contact with the substance, immediately flush the eyes with running water for at least 20 minutes.
- ▶ If possible, remove contact lenses. Keep washing up.
- ▶ If eye irritation persists, seek medical attention/advice

B. When it comes into contact with your skin:

- ▶ If skin irritation occurs, seek medical attention/advice.
- ▶ Remove contaminated clothing and launder before reuse.
- ▶ For hot substances, immerse or rinse the affected body part with large amounts of cold water to remove heat.
- ▶ Remove contaminated clothing and shoes, and isolate the contaminated area.
- ▶ Prevent the spread of contaminated body part in case of minor skin contact.

C. When inhaled:

- ▶ If you feel unwell, seek medical attention/advice.
- ▶ If exposed to excessive dust or fumes, remove to fresh air and seek medical attention if experiencing coughing or other symptoms.
- ▶ If not breathing, give artificial respiration
- ▶ Give oxygen if breathing is difficult.

D. When eaten:

- ▶ If you feel unwell, seek medical attention/advice.
- ▶ If someone has ingested or inhaled the substance, don't perform mouth-to-mouth resuscitation. Instead, use appropriate respiratory medical equipment.

E. Other doctor's notes

- ▶ Ensure that the medical personnel are aware of the substance and take protective measures.

SECTION 5 Countermeasures against Explosion and Fire**A. Appropriate (Inappropriate) fire extinguishing agents:**

- ▶ Small fires: Dry sand, dry chemical, alcohol resistant foam, water spray, normal foam, CO2 (appropriate extinguishing agent)
- ▶ Large fires: Water spray/fog, normal foam (appropriate extinguishing agent)
- ▶ High pressure water injection (inappropriate extinguishing agent)

B. Specific hazards arising from the chemical:

- ▶ During burning, irritating and very toxic gas may be generated by pyrolysis or combustion.
- ▶ When heated, the container may explode.
- ▶ Some can burn, but not easily ignite.
- ▶ Non-flammable; the substance itself does not burn, but it may decompose when heated and generate corrosive/toxic fume.

C. Protective equipment to be worn and prevention measures in case of fire extinguishing:**Calcium Carbonate**

- ▶ If it is not dangerous, move the container from the fire area.
- ▶ Some may be transported at a high temperature.
- ▶ Leaked substance may cause contamination.
- ▶ Contact may cause the skin and eye burn.
- ▶ Dig a ditch for the disposal of fire extinguishing water, and confine it to prevent the substance from scattering.
- ▶ If it is not dangerous, move the container from the fire area.
- ▶ In the event of a tank fire, cool the container with plenty of water even after fire has been extinguished.
- ▶ In the event of a tank fire, if there is high sound from the pressure relief device or the tank is discolored, step back
- ▶ In the event of a tank fire, step back from the tank surrounded by flame.

Water

- ▶ In the event of a tank fire, cool the container with plenty of water even after fire has been extinguished.



- ▶ In the event of a tank fire, if there is high sound from the pressure relief device or the tank is discolored, step back
- ▶ In the event of a tank fire, step back from the tank surrounded by flame.
- ▶ Scattered water from a heated or exploded container can cause burns to the skin and eyes.

Acryl ester copolymer

- ▶ Not applicable. (same as water)

S1 (Trade Secret)

No data

SECTION 6 Measures against Accidental Release**A. Measures and protective equipment required to protect human body:**

- ▶ Avoid inhaling (dust, fume, gas, mist, vapor and spray).
- ▶ Wipe off spills immediately, and follow the precautions in the section of protective equipment.
- ▶ Remove all the sources of ignition.
- ▶ If it is not dangerous, stop leaking.
- ▶ Do not touch damaged containers or leaks without wearing appropriate protective clothing.
- ▶ Cover with plastic sheet to prevent diffusion.
- ▶ Prevent dust formation.
- ▶ Pay attention to the substances and conditions to avoid.

B. Measures required to protect the environment:

- ▶ Prevent entry into waterways, sewers, basements and confined spaces.

C. Cleaning up or removing methods:

- ▶ Absorb the spill with inert substances (for instance, dry sand or soil), and put it in a chemical waste container.
- ▶ Remove airborne dust and moisten it with water to prevent it from scattering
- ▶ Absorb the liquid and wash the contaminated area with detergent and water.

SECTION 7 Handling and Storage

Safe handling method:	<ul style="list-style-type: none"> ▶ Avoid inhaling (dust, fume, gas, mist, vapor and spray). ▶ Wash the handled area thoroughly after handling. ▶ Use only outdoors or in a well-ventilated area. ▶ Follow all MSDS/label precautions as there may still be product residue remaining even after the container is ▶ Handle and store with caution before use. ▶ Carefully remove the cap before opening. ▶ Avoid prolonged or continuous skin contact. ▶ Pay attention to substances and conditions to be avoided. ▶ Perform the task referring to Engineering Management and Personal Protective Equipment.
Safe storage method	<ul style="list-style-type: none"> ▶ Store the container tightly sealed in a well-ventilated area.

SECTION 8 Exposure Prevention and Personal Protective Equipment**A. Exposure standards of chemical substances, biological exposure standards and etc.:**

Name	Domestic Regulations	ACGIH Regulations	Biological Exposure Standards
Water	TWA - 10 mg/m ³	No data	No data
Acryl Easter Copolymer	No data	No data	N/A
Calcium carbonate	No data	No data	No data
S1 (Trade Secret)	No data	No data	No data

B. Appropriate engineering control:

- ▶ Implement process isolation, local exhaust, or other engineering controls to adjust air levels below the exposure
- ▶ Ensure ventilation to maintain air pollution below the exposure limits when generating dust, fumes, or mists during
- ▶ Install face washing facilities and safety showers in facilities that store or use this substance.

C. Personal protective equipment:**Calcium Carbonate**

- ▶ Wear a respirator that has been certified by the Korea Occupational safety and Health Agency in accordance with the physical and chemical characteristics of the substance to be exposed.
- ▶ Wear a half-face respirator equipped with the appropriate type of filter when the exposure concentration is below 100mg/m³.
- ▶ Wear a continuous flow dust mask or a loose-fitting hood/helmet-type Powered Air-Purifying Respirator (PAPR) equipped with the appropriate type of filter when the exposure concentration is below 250mg/m³.
- ▶ Wear a full-face or powered half-face or atmosphere-supplying continuous flow/pressure demand half-face equipped with the appropriate type of filter, when the exposure



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concentration is below 500mg/m³.

- ▶ Wear a full-face or helmet/hood-type pressure demand Supplied Air Respirator equipped with the appropriate type of filter, when the exposure concentration is below 10,000mg/m³.
- ▶ Wear a pressure demand Self-Contained Breathing Apparatus (SCBA) or a Self-Contained Breathing Apparatus (SCBA) equipped with the appropriate type of filter, when the exposure concentration is below 100,000mg/m³.

Water

- ▶ Wear a respirator that has been certified by the Korea Occupational safety and Health Agency in accordance with the physical and chemical characteristics of the substance to be exposed.

Acryl ester copolymer

Respiratory protection

- ▶ Wear a respirator that has been certified by the Korea Occupational Safety and Health Agency.

Eye protection

- ▶ Wear eye protection and face protection to protect your eyes and face (front of the head, forehead, chin, front of the neck, nose, and mouth) from various projectiles and hazardous liquids generated during work.
- ▶ Install emergency washing facilities (shower type) and face washing facilities workers can easily use.

Hand protection

- ▶ Wear chemically resistant protective gloves to avoid direct hand contact with chemicals.

Body protection

- ▶ Wear chemically resistant protective clothing to prevent skin exposure.

S1 (Trade Secret)

No data

Eye protection: No data.

Hand protection: No data.

Body protection: No data.

SECTION 9 Physical and Chemical Properties

A. Appearance: White paste, Color: No data	K. Vapor pressure: No data
B. Odor: Slight acrylic acid odor	L. Solubility: No data
C. Odor threshold: No data	M. Vapor density: No data
D. pH : 8±1	N. Specific gravity: 1.30-1.40
E. Melting point / Freezing point: 0°C	O. N-octanol/water partition coefficient: No data
F. Boiling point / Boiling point range: 100°C	P. Autoignition temperature: No data
G. Flash point: No data	Q. Decomposition temperature: No data
H. Evaporation rate: No data	R. Viscosity : 22.000-40.000 cps (25°C)
I. Flammability (solid, gas): No data	S. Molecular weight: No data.
J. Upper/Lower limit of flammability or explosive range: No data	

SECTION 10 Stability and Reactivity**A. Chemical stability and potential for hazardous reactions**Calcium Carbonate

- ▶ Stable under normal temperature and pressure conditions.
- ▶ The container may explode when heated.
- ▶ Some can burn but don't ignite easily.
- ▶ In case of fire, irritating and toxic gases may be generated.
- ▶ Some liquids may produce vapors that can cause dizziness and suffocation.
- ▶ Stable under normal temperature and pressure conditions.
- ▶ The container may explode when heated.

Water

- ▶ Stable under normal temperature and pressure conditions.
- ▶ The container may explode when heated.

Acryl ester copolymer

- ▶ Stable under normal temperature and pressure conditions.

S1 (Trade Secret)

No data

B. Condition(s) to avoidCalcium Carbonate

- ▶ Heat, sparks, flames, or other sources of ignition

**CERAFIX**Water

- ▶ Heat, contamination

Acryl ester copolymer

- ▶ High temperature (above 40°C) or extreme cold (below 0°C)

S1 (Trade Secret)

No data

C. Substance(s) to avoid

Calcium Carbonate

- ▶ Flammable substances, irritant and toxic gases

Water

- ▶ Water-reactive substances

Acryl ester copolymer

- ▶ Strongly acidic , strongly alkaline, strong oxidizing agent

S1 (Trade Secret)

No data

D. Hazardous substance(s) produced during decomposition

Calcium Carbonate

No data

Water

No data

Acryl ester copolymer

No data

S1 (Trade Secret)

No data

SECTION 11 Toxicological Information

A. Information about the highly possible exposure routes

Calcium Carbonate

- ▶ It can be absorbed into the body through inhalation
- ▶ It can be absorbed into the body through inhalation and digestive organs.
- ▶ It can be absorbed into the body through the skin or digestive organs, inhalation of aerosols.
- ▶ It can be absorbed into the body through inhalation of vapors.
- ▶ It can be absorbed into the body through inhalation, the skin and digestive organs.

Water

No data

Acryl ester copolymer

No data

S1 (Trade Secret)

No data

B. Information on health hazard

Acute toxicity	
Oral	Water: LD50 90000 mg / kg Rat (LD50 > 90 ml/kg (rat) Acryl Ester Copolymer: Not classified. (ATEmix >5000mg/kg (rat)
Percutaneous	No data
Inhalation	No data
Skin corrosion or irritation	Acryl Ester Copolymer: Category 2 (1%≤skin corrosion (Category 1) content<5%)
Severe eye damage or irritation	No data
Respiratory hypersensitivity	No data
Carcinogenicity	No data
Occupational Safety and Health Act	No data
Notification of the Ministry of Employment and Labor	No data
IARC	No data
OSHA	No data



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ACGIH	No data
NTP	No data
EU CLP	No data
Germ cell mutagenicity	No data
Reproductive toxicity	No data
Specific target organ toxicity (single exposure)	No data
Specific target organ toxicity (repeated exposure)	No data
Inhalation hazard	No data

SECTION 12 Environmental Impact

Ecotoxicity	
Fishes	No data
Shellfishes	No data
Birds	No data
Persistence and Degradability	
Persistence	Water : log Kow -1.38 Acryl Ester Copolymer: Doesn't biodegrade quickly. While the main ingredients may undergo fragmentation and moisture may evaporate to disappear, there are also a small amount of substances in the product that persist to accumulate in the environment.
Degradability	Acryl Ester Copolymer: Doesn't biodegrade quickly. While the main ingredients may undergo fragmentation and moisture may evaporate to disappear, there are also a small amount of substances in the product that persist to accumulate in the environment.
Bioaccumulation	No data
Accumulation	No data
Biodegradability	No data
Soil mobility	No data
Other harmful impact	No data

SECTION 13 Disposal Consideration

A. Disposal method

Calcium Carbonate

No data

Water

- ▶ Dispose of the contents and container according to the regulations if specified in the Wastes Control Act.

Acryl ester copolymer

- ▶ Comply with government and local authority regulations.
- ▶ Handle in accordance with the standards of the Environment Management Act.

B. Precautions for Disposal

Calcium Carbonate

- ▶ If specified in the Wastes Control Act, consider the precautions specified in the regulation

Water

- ▶ If specified in the Wastes Control Act, consider the precautions specified in the regulation

Acryl ester copolymer

- ▶ Don't discharge into sewers or streams, etc.

S1 (Trade Secret)

No data

SECTION 14 Information Required for Transportation

A. UN number (UN No.)	Calcium Carbonate: There is no UN Transportation Hazardous Substance Classification Information. Water: There is no UN Transportation Hazardous Substance Classification Information. Acryl ester copolymer: No data, S1 (Trade Secret): No data
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B. Proper shipping name	No data
C. Dangerousness class in transport	No data
D. Container class	No data
E. Marine pollutants	No data
F. Special safety measures that users need or need to know about transportation or means of transportation	No data
G. Emergency measures in case of a spill	Calcium Carbonate, Water, S1 (Trade Secret) : No data Acryl Ester Copolymer: Prevent the inflow into rivers, streams, and seas in case of a spill.

SECTION 15 Legal Regulations Status

Regulation by Occupational Safety and Health Act	-Calcium Carbonate: Substances subject to workplace environmental monitoring (monitoring cycle: other mineral dust) Substances subject to special inspection (diagnostic cycle: mineral dust) Substances with established exposure limits - Water: No data. - Acryl Ester Copolymer: Article 41 - S1 (Trade Secret) : No data
Regulation by Chemical Substances Management Act	No data
Regulation by Hazardous Goods Safety Management Act	No data
Regulation by Waste Management Act	No data
Regulation by Other Domestic and Foreign Laws	
- Domestic Regulation	
Persistent Organic Pollutant Management Act	No data
- Overseas regulations	
U.S. Management Information (OSHA Regulation)	No data
U.S. Management Information (CERCLA Regulation)	No data
U.S. Management Information (EPCRA 302 Regulation)	No data
U.S. Management Information (EPCRA 304 Regulation)	No data
U.S. Management Information (EPCRA 313 Regulation)	No data
U.S. Management Information (Rotterdam Convention Substances)	No data
U.S. Management Information (Stockholm Convention Substances)	No data
U.S. Management Information (Montreal Protocol Substances)	No data
EU Classification Information (Determinate Classification Result)	No data
EU Classification Information (Danger phrase)	No data
EU Classification Information (Safety phrase)	No data

SECTION 16 Other References

A. Data sources

- Calcium Carbonate
Corporate Solution From Thomson
Micromedex(<http://csi.micromedex.com>) (Physical state)
Corporate Solution From Thomson
Micromedex(<http://csi.micromedex.com>) (Color)
Corporate Solution From Thomson
Micromedex(<http://csi.micromedex.com>) (PH)
International Uniform ChemicalL Information
Database(IUCRID)(<http://ecb.jrc.it/esis>) (Melting point/freezing point)
International Uniform ChemicalL Information
Database(IUCRID)(<http://ecb.jrc.it/esis>) (Specific gravity)
Corporate Solution From Thomson
Micromedex(<http://csi.micromedex.com>) (. Molecular weight)
International Uniform ChemicalL Information
Database(IUCRID)(<http://ecb.jrc.it/esis>) (Oral)
International Uniform ChemicalL Information

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Database(IUCLID)(<http://ecb.jrc.it/esis>) (Skin corrosion or irritation)

International Uniform Chemical Information Database(IUCLID) (Severe eye damage or irritation)

No data

No data

No data

EU Classification Information

(Safety phrase)

A. Data sources

16. Other References

EU Classification Information

(Determinate Classification Result)

EU Classification Information (Danger phrase)

10 / 20

International Uniform Chemical Information Database(IUCLID) (Severe eye damage or irritation)

National Library of Medicine/Chemical Carcinogenesis

Research Information

System(NLM/CCRIS)(<http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?>

CCRIS) (germ cell mutagenicity)

ECOTOX (Fish)

Ecological Structure Activity Relationships(ECOSAR) Bird)

Quantitative Structure Activity Relation(QSAR) (Condenasability)

Quantitative Structure Activity Relation(QSAR) (Soil mobility)

The Chemical Database, The Department of Chemistry at the University of Akron(<http://ull.chemistry.uakron.edu/erd>)

No data

- WATER, Acryl ester copolymer

No data

B. Date of the initial preparation: 2013-04-24**C. Number of revisions and the date of the last revision**

Number of revisions: 6

Date of the last revision: 2023-06-09

D. Others

*This MSDS refers to the data from the Korea Occupational Safety & Health Agency, National Institute of Environmental Research, National Institute of Food and Drug Safety Evaluation, the U.S. Department of Health and Human Services, the U.S.Environmental Protection Agency, and the European Chemicals Agency