MATERIAL SAFETY DATA SHEET

Reviewed & Approved by,
Dr. P. Arjunan, Vice President – R&D

1. PRODUCT IDENTIFICATION

TRADE NAME : **SP100-Part C**

MANUFACTURER'S NAME : MYK LATICRETE INDIA PVT. LTD.
Plot No. 30/C (Sy.No. 83/1), Orbit Building, 17th Floor, Tower 1, Knowledge City, TSIIC, Raidurg, Ranga Reddy Dist.,
Hyderabad - 500 081, Telangana, India. (T.S) Tel: +91-40-6817 310

2. HAZARDOUS INGREDIENTS

CHEMICAL NAMES	CAS NUMBERS	PERCENT	ACGIH TLV	OSHA PEL	OTHER(SPECIFY)
Silica Sand	14808-60-7	80-90%	50 micro g/m3	10 mg/m3	N/A
Aluminum Oxides	1344-28-1	1 –4%	10 mg/m3	15 mg/m3	N/A
Titanium Oxides	13463-67-1	0- 12%	10 mg/m3	15 mg/m3	N/A Copper
phthalocyanine+	147-14-8	0.05 %-A 0-05 %-B 0-7 %- C 1.8 %- D	N/ A	N/A	N/A

+ This chemical is contained in the following powders. It must be reported under section 313 of the Emergency Planning and community Right – To- Know Act of 1986 and of 40 CFR 372. A=774 Diamond Blue – B = Blue Quartz – C = 772 Jade – 776 = Blue Sapphire

N/A = Not applicable or available

3. HEALTH HAZARD INFORMATION

Symptoms of over exposure for each potential route of exposure. (Possible Longer-Term effects).

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Inhaled : Symptoms are dyspnea – caused by many lung scars that develop from the dust-pain in Chest, decreased vital capacity and cough. Inhalation of the dust can cause silicosis and may cause lung cancer depending on duration and level ofexposure.

Contact with skin or eyes	: Irritation
of eyes. Absorbed through skin	: N/A
Swallowed	: N/A
Physical hazards	: Not classified.

Health hazards

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Carcinogenicity	Category 1A
Specific target organ toxicity, repeated exposure	Category 2 (lung)
Suspected cancer agent : NO	

This product's ingredients are not found in the lists below.

OSHA : NO NTP : NO IARC : YES

Label elements

Signal word	Danger
Hazard statement	Causes skin irritation. Causes serious eye irritation. May cause cancer. May cause damage to organs (lung) through prolonged or repeated exposure.

Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume. Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling.
Response	If exposed or concerned: Get medical advice/attention. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. If on skin: Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/internationalregulations.

Hazard(s) not otherwise : Not Classified

Classified (HNOC).

4. FIRST AID: EMERGENCY PROCEDURES

Eye Contact	: Flush with water.
Skin Contact skin exposed.	: If irritation occurs, remove affected clothing, and wash the
Inhaled	: Remove to fresh area. For extreme respiratory distress, administer oxygen.
Swallowed/ Ingestion	: Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

5. FIRE AND EXPLOSION

Flash point	**:** Not Flammable or not combustible
Auto ignition temperature, °F	: N/A
Flammable limits in air, volume %	: Lower (LEL): N/A Upper(UEL):N/A
Fire extinguishing materials	:

Water spray	: √	Carbon dioxide	: √	Other: N/A
Foam	: √	Dry chemical	: √	

Special firefighting procedures	: Wear positive pressure self-contained breathing apparatus
Unusual fire and explosion hazards	: This product may form explosive dust clouds in air.

6. SPILL, LEAK, AND DISPOSAL PROCEDURES

Personal precautions, protective equipment, and emergency procedures	Keep unnecessary personnel away. Keep upwind. Avoid formation of dust. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation.
Methods and materials for containment and cleaning up	Stop the flow of material if this is without risk. Sweep or shovel up material and place in a clearly labeled container for waste. Collect dust using a vacuum cleaner. Following product recovery, flush area with water.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

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

7. HANDLING AND STORAGE

Store in cool and dry area.

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Avoid prolongedexposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in a cool, dry place out of direct sunlight.

8. EXPOSURES CONTROL AND PERSONAL PROTECTION

Occupational exposure limits

U.S OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Titanium dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.

US. OSHA Table Z-3 (29 CFR 1910.1000)

Components	Type	Value	Form

Silica Sand (CAS 14808-60-7)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		2.4 million of Particle	Respirable

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Silica Sand (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Titanium dioxide (CAS 13463-67-7)	TWA	10 mg/m3	

US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)

Components	Type	Value	Form
Silica Sand (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.

Ventilation and engineering controls : Normal ventilations

Respiratory protection (type) : NIOSH approved disposable dust mask if PEL is exceeded Respirator

Eye protection (type) : Safety goggles

Skin Protection

Hand protection : Wear chemical-resistant, impervious gloves.

Other : Wear appropriate chemical resistant clothing.

Gloves (specify material) : Cloth or impermeable

Gloves Other clothing and equipment: Long sleeved clothing.

Work practices, hygienic practices : Normal house keeping

Other handling and storage requirements: Keep away from strong alkalis and oxidizers

Protective measures during maintenance of contaminated equipment : Wear NIOSH approved dust mask, safety glasses and gloves.

9. PHYSICAL PROPERTIES

Physical state	: Solid, free flowing powder	Form	: Powder
Color	: Colored	Odor	: Odorless
Vapor density (air=1)	: N/A	Melting point or range, °F	: N/A
Specific gravity @25^{0}C	: 1.5-2.5	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
Flash point : Not flammable or Not combustible

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

10. REACTIVITY DATA

Reactivity : The product is stable and non-reactive under normal conditions of use, storage and transport

Stability : Material is stable under normal conditions.
Conditions to avoid : Moisture, extreme heat, and incompatibles.

Incompatibility (materials to avoid) : Exposure to hydrofluoric acid or strong alkalis or oxidizers.

Hazardous decomposition products (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

11. TOXICOLOGY INFORMATION

General information: No data Available
Information on likely routes of exposure
Inhalation : Dust irritates the respiratory system and may cause coughing and difficulties in breathing.
Skin contact **:** Causes skin irritation.
Eye contact **:** Causes serious eye irritation.

Ingestion **:** No data available

Symptoms : Coughing. Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Prolonged exposure may cause chronic effects.

11.1 Information on toxicological effects

Acute toxicity : May cause respiratory irritation.

Components	**Species**	**Test Results**
Sodium silicate (CAS 1344-09-8)		
Acute		
Oral		
LD 50	Mouse	1100 mg/kg
	Rat	1.1 g/kg

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/ eye irritation : Causes serious eye irritation.

Respiratory Sensitization : No data available.

Skin sensitization : Not a skin sensitizer.

Germ cell mutagenicity **:** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity **:** May cause cancer. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibers, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003)

IARC Monographs. Overall Evaluation of Carcinogenicity

Silica Sand (CAS 14808-60-7)	1 Carcinogenic to humans.
Titanium dioxide (CAS 13463-67-7)	2B Possibly carcinogenic to humans.

NTP Report on Carcinogens

Silica Sand (CAS 14808-60-7)	Known To Be Human Carcinogen.

Reproductive toxicity : This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - Single exposure : Not classified.

Specific target organ toxicity - Repeated exposure : May cause damage to organs (lung) through prolonged or repeated exposure-

Aspiration hazard : Due to the physical form of the product it is not an aspiration hazard.

Mixture versus substance : No data available.

Other Information : Prolonged or repeated exposure may cause lung injury, including silicosis.

12. ECOLOGICAL INFORMATION

Ecotoxicity : Not expected to be harmful to aquatic organisms.

Components		Species	Test Results
Sodium silicate (CAS 1344-09-8)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	1800 mg/l, 96 hours

12.2 Persistence and degradability : No data is available on the degradability of this product.

12.3 Bioaccumulative potential : No data available for this product.

Partition coefficient n-octanol/water (log Kow) : No further relevant information available.

Bioconcentration factor (BCF) : No further relevant information available.

12.4 Mobility in soil/Mobility in general : The product is not mobile in soil.

12.5 Results of PBT and vPvB assessment : In applicable.

12.6 Other adverse effects : No other adverse environmental effects (e.g. ozone depletion, photochemical

ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL INFORMATION

Dispose of waste and residues in accordance with local authority requirements.

Disposal instructions Dispose of contents/container in accordance with local/regional/national/internationalregulations.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

No special labeling or transportation information is required.

15. REGULATORY INFORMATION

All ingredients are listed on the U.S.EPA TSCA inventory of chemical substances. This product contains a chemical known to the state of California to cause cancer or reproductive harm.

16. OTHER INFOMATION

Training information: Follow training instructions when handling this material.

This information is furnished without warranty, representation, inducement, or license of any kind; except that it is accurate to the best of our knowledge or obtained from sources believed by us to be accurate.