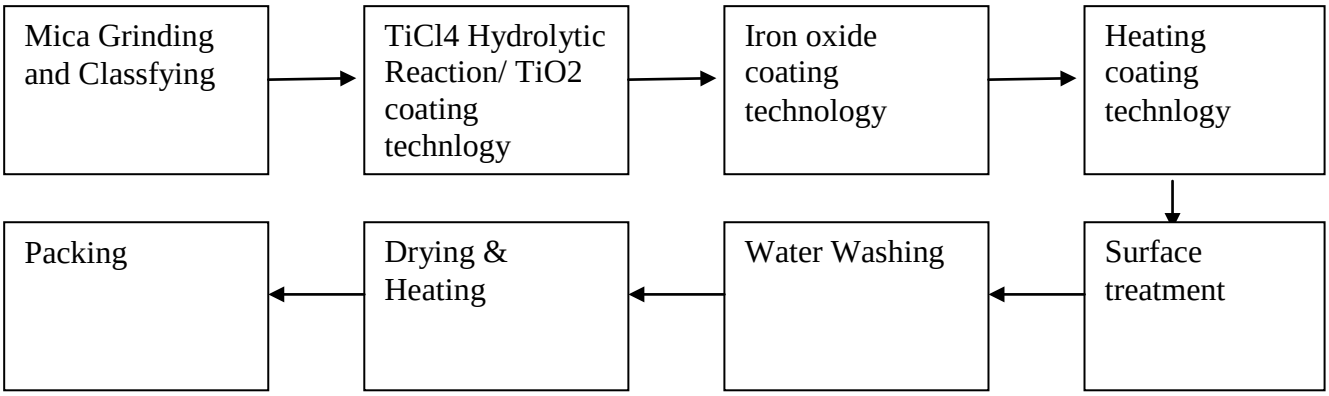
Certificate of Analysis

Trade Name: Serecite White
Batch No.: #180514

Assay(INCI)	Cas No.	Spec.Values	Batch Values	Method
Fluorphlogopite	12003-38-2	62-68%	66.30%	Manufacturer
Titanium dioxide	13463-67-7	32-38%	33.70%	Manufacturer
Particle size(80% within the range 5-25μm)		confirms	confirms	laser diffraction
Particle size(d50)		9-11μm	10μm	laser diffraction
pH-value(4% H2O)		6-9	7.2	ISO787-9
Loss on drying(105℃)		≤0.5%	≤0.5%	ISO787-9
Heavy metals				
As		≤2 ppm	≤2 ppm	Manufacturer
Ba		≤50 ppm	≤50 ppm	Manufacturer
Cd		≤3 ppm	≤3 ppm	Manufacturer
Cr		≤20 ppm	≤20 ppm	Manufacturer
Cu		≤50 ppm	≤50 ppm	Manufacturer
Hg		≤1 ppm	≤1 ppm	Manufacturer
Ni		≤10 ppm	≤10 ppm	Manufacturer
Pb		≤5 ppm	≤5 ppm	Manufacturer
Sb		≤1 ppm	≤1 ppm	Manufacturer
Zn		≤50 ppm	≤50 ppm	Manufacturer
Visual and colorimetric evaluation		confirms	confirms	Manufacturer
Microbiological purity				
Microorganisms		<100CFU/g	<100CFU/g	Manufacturer
Ph.Eur.USP XXII		No Pathogens	No Pathogens	Manufacturer

Mica Production Flow Chart



Declaration

TO: Who may concern

We, MADAR Corporation, state that all Oxides and Micas are GMO free.

According to ECRegulation 1907/2006 (REACH), 1272/2008 (CLP) & 453/2010

Date of issue : 07.09.2011 – Version : EU_EN/2 – Print date : February 2014

Material Safety Data Sheet

1.INDETIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Indentifier

Trade name	: Serecite White Mica
Relevant identified uses of the substance or mixture and uses advised against	: colouring agent
Uses advised against	: not known
Details of the supplier of the safety data sheet	
Supplier:	: MADAR Corporation Limited

2. HAZARD IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No. 1272/2008(CLP)	: not classified
According to Directive 67/548/EEC & Directive 1999/45/EC	: not classified
Additional information	: not available

Label elements

GHS label elements	: not applicable
Hazard pictogram(s)	: not applicable
Signal word(s)	: not applicable
Hazard statement(s)	: not applicable
Precautionary statement(s)	: not applicable
Other hazards	: not known

3.COMPOSITION/INFORMATION ON INGREDIENTS

Chemical family : fluorphlogopite - titanium dioxide. Contains no hazardous ingredients

Commen chemical name	CAS No.	EINECS No.	Colour Index	Chemical composition	Hazard classification According to directive 67/548/EEC & Directive 1999/45/EC, Regulation (EC) No. 1272/2008(CLP)
Fluorphlogopite	12003-38-2	234-426-5		62-68	Not classified
Titanium dioxide	13463-67-7	236-675-5	77891	32-38	Not classified

4. FIRST AID MEASURES

Description of first aid measures

Inhalation: in case of accident by inhalation : remove causality to fresh air and keep at rest

Skin contact : wash affected skin with plenty of water

Eye contact : if contact with eyes directly, flush with gently flowing fresh water thoroughly; If eye irritation persists, get medical advice/attention

Ingestion : if ingested, wash out mouth with water, drink milk or egg white

Notes to physician : no special measures are required

Most important systems and effects,

Both acute and delayed

Actue : none

Long term (repeated) : may cause irritation to the respiratory system. Cough. Increased difficulty in breathing

Indication of immediate medical attention and special treatment needed

Recommended :a. Chest XRay

b. Lung functionality tests

5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : extinguish with waterspray, foam or dry chemical

Unsuitable extinguishing media : carbon dioxide

Special hazards arising from the substance or mixture

Thermal hazards : noncombustible. None anticipated

Advice for firefighters : fire fighters should wear complete protective clothing including self-contained breathing apparatus

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emgergency procedures

Personal precautions : do not breathe dust

Personal protection equipment : wear appropriate personal protective equipment, avoid direct contact

In case of emergency : a self contained breathing apparatus and suitable protective clothing should be worn in fire conditions

Environmental precautions : do not allow to enter drains, sewers or watercourses

Methods and material for

Containment and cleaning up : collect mechanically and dispose of according to Section 13. Use vacuum equipment for collecting spilt materials, where practicable

Reference to other sections : see sections 8 and 13

7. HANDLING AND STORAGE

Precautions for safe handling : avoid breathing dust

Conditions for safe storage

including any incompatibilities : keep container in a wellventilated place

Specific end use(s) : not known

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters : provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures

Exposure limit values : not known

Exposure controls

Appropriate engineering controls :provide adequate ventilation to ensure that the occupational exposure limit is not exceeded. Isolate the dispersive process step away from other operations. This can be achieved by local exhaust ventilation or general ventilation

Individual protections measures, such as personal protective equipment(PPE)

Hand/eye/face protection : wear gloves, eye protection and an approved dust mask if dust is generated during handling. Goggles giving complete protection to eyes. Dust mask covering nose and mouth

Skin protection :apron or other light protective clothing, boots and plastic or synthetic rubber gloves

Respiratory protection : dust mask covering nose and mouth

Thermal hazards : none

Environmental exposure controls : avoid dust generation. Avoid accumulation of dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: powder
Colour	: Satin White
Odour	: odourless
pH	: 6.0-9.0 (4% H2O)
Boiling point, ° C	: not applicable
Melting point, ° C	: decomposes
Freezing point, ° C	: not applicable
Density	: 2.8-3.3 kg/L
Bulk density	: 20-26 g/100g
Vapour pressure	: not applicable
Solubility (in water)	: insoluble
Particle size	: 5-25µm

10. STABILITY AND REACTIVITY

Reactivity	: there may be violent or incandescent reaction of the product with metals at high temperatures (e.g., aluminium; calcium; magnesium; potassium; sodium; zinc; lithium)
Chemical stability	: stable under normal conditions
Possibility of hazardous reactions	: none
Conditions to avoid	: high temperature
Incompatible materials	: strongly acidic, strongly alkaline, oxidizing agents
Decomposition products	: no information available

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

This inorganic pigment in general is considered to be practically nontoxic.

Acute toxicity	: not available
Carcinogenicity	: not available

12. ECOLOGICAL INFORMATION

Toxicity	: no data
Persistence and degradability	: insoluble in water. This product is predicted not to degrade in soil and water
Bioaccumulative potentiall	: no data
Mobility in soil	: not applicable
Results of PBT and vPvB assessment :	: not applicable
Other adverse effects :	: not known

13. DISPOSAL CONSIDERATIONS

Waste treatment methods : dispose of contents in accordance with local, state or national legislation

14. TRANSPORT INFORMATION

Not classed as dangerous for transport.

International Transport Regulations	ADR/RID	ADN	IMDG	ICAO/IATA
UN number	Not applicable	Not applicable	Not applicable	Not applicable
Proper shipping name	Not applicable	Not applicable	Not applicable	Not applicable
Transport hazard class(es)	Not applicable	Not applicable	Not applicable	Not applicable
Packing group	Not applicable	Not applicable	Not applicable	Not applicable
Environmental hazards	None	None	None	None
Special precautions for user	None	None	None	None
Transport in bulk according to Annex II of MARPOL73/78 and The IBC Code	Not applicable	Not applicable	Not applicable	Not applicable

Hazard label(s)	Not applicable
Additional information	Custom tariff No. 32061900

15.REGULATORY INFORMATION

According to Directive 67/548/EEC &
Directive 1999/45/EC : not classified as dangerous for supply/use
Safety, health and environmental regulations/legislations specific for the substance or mixture :not available

16. OTHER INFORMATION

Annex to the extended Safety Data Sheet (eSDS)
ADR : European Agreement concerning international carriage of Dangerous goods by Road
CAS : Chemical Abstracts Service
EC : European Community
ICAO : International Civil Aviation Organization
IMDG : International Maritime Dangerous Goods
IATA : International Air Transport Association

DATA SOURCES

NPIRI Raw Material Handbook, Volume 4, Pigments, Second Edition, 2001
Book on “Safe Handling of Pigments”, European Edition 1995, BCMA, EPSOM ETAD, VdMi
HSDB
NIOSH ICSC
Hazardous Substance Fact Sheet, New Jersey Department of Health and Senior Service

We have described our product concerning possible safety requirements by the abovementioned information given to the best of our knowledge and experience. All data given are never meant to guarantee any quality description nor product properties

Declaration

TO: Who may concern

We, MADAR Corporation Limited, state that all Oxides and Micas are Cruelty free and Vegan.

TECHNICAL DATA SHEET

Product name :	**Serecite White Mica**
Product code :	**CLRMICASERE**
INCI Name :	Fluorphlogopite- Titanium dioxide
CAS No. :	12003.38.2-13463.67.7
Date :	11.10.2014

CHARACTERISTICS			RANGE
Physical properties			
Characteristics			Satin White
Average particle size			5-25µm
D-50			9-11 µm
Chemical composition			
Fluorphlogopite			62.0 -68.0 %
Titanium dioxide (C.I. 77891)			32.0 -38.0 %
Heavy metals			
As	< 2 ppm	Hg	< 1 ppm
Ba	< 50 ppm	Ni	< 10 ppm
Cd	< 3 ppm	Pb	< 5 ppm
Cr	< 20 ppm	Sb	< 1 ppm
Cu	< 50 ppm	Zn	< 50 ppm
Microbial purity			
Total viable Aerobic count			< 100
E. Coli			Absent in 1 g
Pseudomonas aeruginosa			Absent in 1 g
Staphylococcus aureus			Absent in 1 g
Salmonella species			Absent in 1 g
Candida albicans			Absent in 1 g