

The Testing Center

# National Cera Laboratory

## Ceramic Raw Material Testing Lab

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Nc/Laboratory/Nov.11/2020/44

Date:-02/11/2020

- |                         |   |
|-------------------------|---|
| 1. Name & Add. Of Party | :- Grande Massimo                           |
| 2. Name Of Sample       | :- Vitrifide Tiles                          |
| 3. Mark                 | :- Apune Statuario Glossy                   |
| 4. Reference No         | :- NCL/Oct.1020/02/01                       |
| 5. Date Of Recived      | :- 30/10/2020                               |
| 6. Quantity             | :- 1 Pics.                                  |
| 7. Sample Drawn by      | :- Sample Submitted By Party, We not Drawn. |
| 8. Test Name            | :- Total Chemical Analysis.                 |

### Chemical Analysis

### Physical Property

SiO <sub>2</sub>	:-	72.60%	Residue On 240#	:-
Al <sub>2</sub> O <sub>3</sub>	:-	19.99%	Water Of Plasticity	:-
Fe <sub>2</sub> O <sub>3</sub>	:-	0.69%	pH	:-
TiO <sub>2</sub>	:-	1.43%	T.D.S.	:-
CaO	:-	0.37%	Drying Shrinkage At 110°c	:-
MgO	:-	0.40%	Firing Shrinkage At 1210°c	:-
Na <sub>2</sub> O	:-	2.69%	Maturity(W.A.) At 1210°c	:-
K <sub>2</sub> O	:-	1.52%	Dry MOR	:-
LOI	:-	0.30%	Firid MOR	:-
ZrO <sub>2</sub>	:-		Whiteness	:-
ZnO	:-		L*	:-
BaO	:-		A*	:-
B <sub>2</sub> O <sub>3</sub>	:-		B*	:-

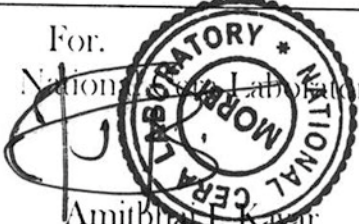
Remarks:-

Report No. :- NCL/Oct.1020/02/01  
MSDS No. :- Nc/Laboratory/Nov.11/2020/VT-01

*National Cera Laboratory*

*(Signature)*  
Proprietor

For.  
National Cera Laboratory  
*(Signature)*  
Amitbhai Kulkarni



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8-A, National Highway, Morbi.

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## Ceramic Raw Material Testing Lab

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Nc/Laboratory/Nov.11/2020/VT-02

Date:02/11/2020

### MATERIAL SAFETY DATA SHEET

#### SECTION 1: IDENTITY

Product Name: PORCELAIN TILES

CAS# No. : ---

Common Name: PORCELAIN TILES

Chemical Name: CERAMICS TILES / GLAZE / UN GLAZE

Manufacturer's / User's Name: GRANDE MASSIMO

Manufacturer's Address: SURVEY No.324/315, 8-A, NATIONAL HIGHWAY, JUNA SADURKA VILLAGE,  
MORBI-363642 (GUJ.) INDIA

Emergency Telephone Number: +91 95123 00629 (Mr. NELSONBHAI) GST No. 24AADCL1753F1ZU

Porcelain Tiles ✓  
Pietra Gray(Matt) ✓  
NCL/Nov.1120/02/02 ✓



#### SECTION 2: Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.

- Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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## Label elements

### Labelling according to EU guidelines:

Observe the general safety regulations when handling chemicals.

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

### Other hazards

During the firing process a very stable chemical crystal grid structure is formed. Tiles therefore are not considered as hazardous to health. However, during activities like drilling, sawing and grinding of tiles dust is generated containing crystalline silica. Inhalation of this type of dust is hazardous to health and should be avoided.

### Results of PBT and vPvB assessment

#### · PBT:

Does not meet the specific criteria detailed in Annex XII of Regulation 1907/2006 and the substance is not considered a PBT.

#### · vPvB:

Does not meet the specific criteria detailed in Annex XII of Regulation 1907/2006 and the substance is not considered a vPvB.

## SECTION 3: Composition/information on ingredients

### · Chemical characterization: Mixtures

· **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:** Not applicable

#### · **Non-hazardous components:**

Tiles consist of a mixture of predominantly clay types and other naturally occurring mineral substances. After mixing with water and pressing of the tile the bisque is fired at very high temperatures. During the firing process very stable crystal grid structures are formed in which the individual chemical elements are incorporated. Main constituents of ceramic tiles (bisque) are silicon oxide (60-70 %) and aluminium oxide (15-25 %). Main constituents of the glazing layer are silicon oxide (approx. 50 %), aluminium oxide (approx. 10 %) and calcium oxide (approx. 10 %); furthermore the glazing layer contains small percentages of the following substances: sodium oxide, manganese oxide, iron oxide, magnesium oxide, potassium oxide and barium oxide.

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

Trade name: Ceramic Vitrifide Double Charge tiles (glazed)



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## SECTION 4: First aid measures

- Description of first aid measures

General information:

This section only applies to the handling of tiles (drilling, cutting, sawing, grinding, removal, etc.)

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

Information for doctor:

Most important symptoms and effects, both acute and delayed See Chapter 11.

Indication of any immediate medical attention and special treatment needed Provide general first aid.

## SECTION 5: Firefighting measures

- Extinguishing media

· Suitable extinguishing agents: Not applicable.

· Special hazards arising from the substance or mixture Not applicable.

· Advice for firefighters

· Protective equipment: No special measures required.

## SECTION 6: Accidental release measures

- Personal precautions, protective equipment and emergency procedures

In the event of generation of large amounts of dust during processing: provide adequate ventilation; wear a respirator (type P3); clean up dust using an industrial vacuum or by damp sweeping

· **Environmental precautions:** No special measures required.

· **Methods and material for containment and cleaning up:** Pick up mechanically.

· **Reference to other sections**

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## SECTION 7: Handling and storage

· Handling:

· **Precautions for safe handling** No special measures required.

· **Information about fire - and explosion protection:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**

· Storage:

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **Specific end use(s)** No further relevant information available.



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## SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

• Control parameters

• Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Additional information:

During occupational processing of tiles (drilling, sawing, grinding of tiles; removal of old tile layers) large amounts of dust can be generated. This dust contains silica.

Substance: Crystalline silica Occupational exposure limit: 0,075 mg/m<sup>3</sup> Remarks: respirable dust; legally binding OEL.

The lists valid during the making were used as basis.

• Exposure controls

• Personal protective equipment:

• Respiratory protection:

Always use respiratory protection during sawing or grinding, in combination with local exhaust ventilation. A type P3 filtering piece is sufficient.

When not applying local exhaust ventilation or wet sawing or grinding methods, a (half or full mask) respirator with motor/filterunit (type TM3P) should be used. This is also recommended during removal of old tiles.

• Protection of hands: Wear cotton or leather working gloves during processing of tiles.

• Eye protection:

Wear safety glasses with side shields or a face shield when sawing or grinding tiles or removing old tiles. Avoid wearing contact lenses.

• Risk management measures

Technical measures:

Bring tiles down to size using cutting instead of sawing or grinding methods.

During sawing or grinding of tiles or removal of old tiles use local exhaust ventilation combined with collection of dust; wet sawing or grinding methods are to be preferred (sawing and grinding equipment with water supply; application of (semi) automatic removal equipment with moistening facility).

## SECTION 9: Physical and chemical properties

Test	Results	Test Standard
Slip Resistance	75 Wet (low potential for slip)	BS 7976:Part2:2002+1:2013
Deviation in Length	+/- 0.1%	ISO 10545-2
Deviation in Thickness	+/- 0.4%	ISO 10545-2
Straightness of Sides	+/- 0.1%	ISO 10545-2
Rectangularity	+/- 0.1%	ISO 10545-2
Surface Quality	98% Free from Visible Defect	ISO 10545-2
Scratch Hardness	Min 7	ISO 10545-2
Modulus Of Rupture	45M/mm <sup>3</sup>	ISO 10545-4
Breaking Strength	>8000 N	ISO 10545-3
Water Absorption	<0.08%	ISO 10545-3



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Stain Resistance	Stain Resistant	ISO 10545-14
Chemical Resistance	No Damage	ISO 10545-10
Thermal Expansion	<6x10 <sup>-6</sup>	ISO 10545-8
Moisture Expansion	Nil	ISO 10545-10
Thermal Shock Resistance	No Damage	ISO 10545-9
Resistance to Surface Abrasion	PEI Class	5 ISO 10545-7

• Information on basic physical and chemical properties

• General Information

• Appearance:

Form:

Solid

Colour:

Different according to colouring

• Odour:

Odourless

• Odour threshold:

Not determined.

• pH-value:

Not applicable.

• Change in condition

Melting point/Melting range:

Not applicable.

Boiling point/Boiling range:

Undetermined.

• Flash point:

Not applicable.

• Flammability (solid, gaseous):

Not determined.

• Ignition temperature:

Decomposition temperature:

Not determined.

• Self-igniting:

Product is not selfigniting.

• Danger of explosion:

Product does not present an explosion hazard.

• Explosion limits:

Lower:

Not determined.

Upper:

Not determined.

• Vapour pressure:

Not applicable.

• Density:

Not determined.

• Relative density

Not determined.

• Vapour density

Not applicable.

• Evaporation rate

Not applicable.

• Solubility in / Miscibility with water:

Insoluble.

• Segregation coefficient (n-octanol/water):

Not determined.

• Viscosity:

Dynamic:

Not applicable.

Kinematic:

Not applicable.

• Other information

No further relevant information available.



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## SECTION 10: Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.
- Conditions to avoid No further relevant information available.
- Incompatible materials: Contact with strong acids
- Hazardous decomposition products: No dangerous decomposition products known.

## SECTION 11: Toxicological information

- Information on toxicological effects

- Acute toxicity:
- Primary irritant effect:
  - on the skin: Skin irritation due to mechanical abrasion.
  - on the eye: Eye irritation due to exposure to high dust concentrations.
- Sensitization: No sensitizing effects known.

- Subacute to chronic toxicity:

Long term inhalatory exposure to crystalline silica above current occupational exposure limits may lead to silicosis (development of fibrotic nodules in lung tissue) and is also associated with a number of other diseases (bronchitis, emphysema, etc.). Smoking may increase the risk on adverse effects.

- Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version. When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

- Acute effects (acute toxicity, irritation and corrosivity)

Although cases of development of acute silicosis due to short time exposure to very high concentrations of crystalline silica are described in literature, occurrence of this type of disease is very rare.

- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Crystalline silica is classified as a human carcinogen (Group I) by the IARC (International Agency for Research on Cancer).

## SECTION 12: Ecological information

- Toxicity
- Aquatic toxicity: Product is not soluble in water and not toxic.
- Persistence and degradability This product is according to previous experiences inert and non-degradable.
- Behaviour in environmental systems:
- Bioaccumulative potential Does not accumulate in organisms
- Mobility in soil No further relevant information available.

- Additional ecological information:

- General notes: Generally not hazardous for water

- Results of PBT and vPvB assessment

- PBT:

Does not meet the specific criteria detailed in Annex XII of Regulation 1907/2006 and the substance is not considered a PBT.

- vPvB:

Does not meet the specific criteria detailed in Annex XII of Regulation 1907/2006 and the substance is not considered a vPvB.

- Other adverse effects No further relevant information available.



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## SECTION 13: Disposal considerations

- Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

## SECTION 14: Transport information

- Land transport ADR/RID (cross-border)
- ADR/RID class: -
- Maritime transport IMDG:
- IMDG Class: -
- Marine pollutant: No
- Air transport ICAO-TI and IATA-DGR:
- ICAO/IATA Class: -
- UN "Model Regulation": -
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

## SECTION 15: Regulatory information

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

When installing or processing tiles please take note of the following additional safety measures:

- Wear adequate working clothes
- Wear knee protection
- Wear safety shoes
- Use appropriate lifting and transporting equipment

The information and data in this Safety Data Sheet are based on current scientific and technical state of the art and are believed to be accurate at the printing date. The information refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

• Abbreviations and acronyms:

NOEC: No Observed Effect Concentration IC50: Inhibition Concentration, 50 percent ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA) ICAO: International Civil Aviation Organization ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO) GHS: Globally Harmonized System of Classification and Labelling of Chemicals

✓ Date: 02/11/2020 NCL/Nov.1120/02/02  
✓ Nc/Laboratory/Nov.11/2020/VT-02

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Proprietor  
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