



Material Safety Data Sheet (MSDS)

Radianz

Date of issue: 2009-03-02

Revision data : 2020-01-02

Version:

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Name

- Radianz

1.2 Product use

- Application : Kitchen top, counter top, interior wall, ect.
- uses advised against : Do NOT use with strong acid or base chemicals

1.3 Detail of the supplier of the safety data sheet

○ Manufacture

- Name of Supplier : LOTTE CHEMICAL CORP.
- Address : 334-27, Yeosusandan-ro, Yeosu-si, Jeollanam-do, Republic of Korea
- Department : Production Team
- Telephone : +82-61-689-1160
- Emergency telephone : +82-61-689-1160
- FAX No. : +82-61-689-1759

○ Supplier

- Name of Supplier : LOTTE CHEMICAL CORP.
- Address : 56, Gosan-ro, Uiwang-si, Gyeonggi-do, Republic of Korea
- Department : Technical Solution Team
- Telephone : +82-31-596-3861
- Emergency telephone : +82-31-596-3861
- FAX No. : +82-31-596-3882

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

- Not Classified
- The hazards of this product are associated with its fabrication. Such as sawing, routing and sanding can generate dust.
- Exposure to high concentration of dust or inhalation may cause respiratory irritation and sneeze. This information is according to exposure limits of PMMA (Poly methyl matacrylate).

2.2 Label elements

- Pictogram
none
- Signal word
none
- Hazard statement
none
- Precautionary statement
Prevention: Not Applicable, Respnse: Not Applicable, Storage: Not Applicable, Disposal: Not Applicable
- NFPA rating
Health : Not applicable, Flammability : Not applicable, Reactivity : Not applicable

2.3. Other hazards

- none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical	Usual Name	CAS No.	Concentration range(%)
Quartz	Silica	14808-60-7	40 - 90 %
Unsaturated Polyester Resin	UPE	-	< 10 %
Pigment	Pigment	Trade secret	< 1 %
Additives	Additives	Trade secret	< 1 %

4. FIRST AID MEASURES

4.1 Eye Contact

- Rinse thoroughly with plenty of water for over 15 minute and call a doctor immediately.

4.2 Skin Contact

- No hazard. Wash with soap and water.

4.3 Inhalation

- If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Follow instruction of doctor.

4.4 Ingestion

- If vomiting, rinse mouth and follow instruction of doctor.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

- Suitable extinguishing media : Dry chemical
- Unsuitable extinguishing media : Do not use direct water

5.2 Special hazards arising from the substance or mixture

- Hazardous Product of Combustion: Carbon Oxides (CO, CO₂), Various Hydrocarbons.
- Risk of Explosion or Fire: None

5.3 Advice for fire-fighters

-- Protective fire fighting clothing

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- None

6.2. Environmental precautions

- AIR: Avoid generation of dust and fine dust dispersed in the air

6.3. Methods and material for containment and cleaning up

- Small amount: Brush into dry container or bag.
- Large amount: Suppression occurrence of dust. For disposal of spilled material in appropriate containers collected and clear surface

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

- Radianz is heavy material. It must be moved by proper handling equipment.

7.2. Conditions for safe storage, including any incompatibilities

- Avoid contact with heat, sparks, flame or other ignition sources.
- Store in a well-ventilated place. Avoid direct sun light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

- Occupational Exposure Limits : Not available
- TWA : 0.1mg/m³ - Quartz
- STEL : Not available
- 0.3mg/m³ OSHA TWA(Inhalable particles): Calculation: 30mg/m³ ÷ (%SiO₂ +2)
- 0.1mg/m³ OSHA TWA(Respirable particles): Calculation: 10mg/m³ ÷ (%SiO₂ +2)
- ACGIH : Not available
- Biological exposure limit : Not available

* ACGIH = American Conference of Governmental Industrial Hygienists

8.2 Appropriate engineering controls

- Not available

8.3 Individual protection measures, such as personal protective equipment

- Respiratory protection**
 - Wear dust mask
- Eye Protection**
 - Wear safely glasses
- Hand Protection**
 - Wear protective gloves
- Skin protection**
 - protectieve clothing

9. Physical and chemical properties

9.1 Appearance	
- Physical state	Solid
- Color	Various
9.2 Odor	Minimal
9.3 Odor Threshold	Not applicable
9.4 pH	Not applicable
9.5 Boiling /Freezing point	Not applicable
9.6 Boiling point/boiling range	Not applicable
9.7 Flash point	No data
9.8 Evaporation rate	Not applicable
9.9 Flammability (solid, gas)	Not applicable
9.10 Upper/lower flammability or explosive limits	Not applicable
9.11 Vapour pressure	Not applicable
9.12 Water Solubility	Not soluble in water
9.13 Vapour density	Not applicable
9.14 Relative density	2.3 ~ 2.5
9.15 Partition coefficient	No data
9.16 Autoignition Temperature	over 490 °C
9.17 Decomposition	No data
9.18 Viscosity	Not applicable
9.19 Explosive properties	No data

10. STABILITY AND REACTIVITY

10.1 Stability and Possibility of Hazardous Reaction

- Stability : Stable under room temperature and normal pressure
- Possibility of Hazardous Reaction: none

10.2 Conditions to avoid

- Avoid extreme heat, Direct sun light

10.3 Materials to avoid

- Acids, base, solvent, heat, spark, flame

10.4 Hazardous decomposition products

- None

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

- (Respiratory system)**
 - :High concentration may cause difficulty with breathing.
- (ingestion)**
 - Organic reaction with digestive organs may cause irritation.
- (Eye, Skin)**
 - Not applicable

11.2. Toxicity and irritation

- Acute toxicity:**
 - * **Oral**
 - Acute exposure : Organic reaction with digestive organs may cause irritation.
 - Chronic overexposure: Not available
 - * **Dermal**
 - Acute exposure : Particles may cause irritation.
 - Chronic overexposure: Not available
 - * **Inhalation**
 - Acute exposure : High concentration may cause difficulty with physical breathing.
 - Chronic overexposure: Not available
- Skin corrosion/irritation**
 - Not available
- Eye corrosion/irritation**
 - Not available
- Respiratory sensitization**
 - Not available
- Skin Sensitization**
 - Not available
- Carcinogenic**
 - Not available
- Germ cell mutations**
 - Not available
- Reproductive toxicity**
 - Not available
- Specific target organ toxicity(single exposure)**
 - Not available
- Specific target organ toxicity(repeated exposure)**
 - Not available
- Aspiration hazard**
 - Not available

11.3. TOXICALOGICAL EFFECTS

- Not applicable

12. ECOLOGICAL INFORMATION

12.1. Ecotoxicity

- Fish**
 - No data
- Invertebrate**
 - No data

Algae

- No data

12.2 Persistence/degradability

- Persistence : No data

- Degradability : No data

12.3 Bioaccumulative potential

- Biodegradability: No data

- Bioaccumulation: No data

12.4. Mobility in soil

- Not available

12.5 Other adverse effects

- Not available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

- Disposal after storage in an appropriate waste container.

13.2 Require attention

- All disposal methods must be in compliance with all Federal, State/Provincial and local laws and regulations

14. TRANSPORTATION INFORMATION

14.1 UN number

- Not applicable

14.2 UN proper shipping name

- Not applicable

14.3 Transport hazard class(es)

- Not applicable

14.4 Packing group

- Not applicable

14.5. Environmental hazards

- Not available

14.6 Special precautions for user related to transport or transportation measures

- Not available

15. REGULATORY INFORMATION

15.1. Occupation safety and health acts

- Not available

15.2. Chemical Safety Assessment

- Not available

15.3. Safety control of dangerous substances Act

- Not available

15.4. Wastes control Act

- Not available

15.5. Foreign legal

- Persistent Organic Pollutants Control Act**
 - Not available
- EU**
 - * **Confirm classific result : Not classified**
 - * **Harzard words Not applied**
 - * **Prevention measure: Not applied**
- U.S regulations**
 - * **OSHA Hazard Communication Standard (29 CFR 1910.119)**
 - Not applicable
 - * **CERCLA 103 (40CFR302.4)**
 - Not applicable
 - * **EPCRA 302 (40CFR355.30)**
 - Not applicable
 - * **EPCRA 304 (40CFR355.40)**
 - Not applicable
 - * **EPCRA 313 (40CFR372.65)**
 - Not applicable
- Rotterdam convention material**
 - Not applicable
- Stockholm convention material**
 - Not applicable
- Montreal Protocol material**
 - Not applicable
- TSCA (US Toxic Substances Control Act): In compliance with TSCA Inventory requirements for commercial purposes**

16. OTHER INFORMATION

16.1 Sources of Data

16.2 Creation Date

- 2009-03-02

16.3 Number of Revision and Latest Revisioni Date

-6th : 2019.09.03

16.4 Others

- While this MSDS explains our best knowledge of the health and safety hazard information of the product, it is provided for your guideline only.
- Because many factors may affect processing or application, we recommend you make tests to determine the suitability of the product for your particular use before to use.