



LUMINA STONE

THE NEW QUARTZ ERA

**SAFETY
DATA
SHEET**

LUMINA STONE

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements of other countries.

PRODUCT AND COMPANY IDENTIFICATION

Product Name: Lumina Stone ®
Product Use: Lumina Stone ®

Company: Lumina Stone / 10th Floor, Building T6, Smart City, 2nd Jihua Road.
Chancheng District, Foshan ,Guangdong, China -528000

HAZARDS IDENTIFICATION

Emergency Overview

Information Pertaining to Particular Dangers for Man and Environment: Classification: This preparation is not classified as hazardous according to the latest adaptation of European Union Directives 67/548/EEC and 1995/45/EC.

Potential Health Effects

Quartz surfaces products are not hazardous as shipped. However, operations such as sawing, grinding, routing, drilling and sanding can generate dust.

Inhalation of such dusts, smoke and vapors may cause upper respiratory tract irritation. Symptoms may include burning sensation, coughing, sneezing, and sore throat. Skin contact with dust may produce transitory mechanical irritation. Symptoms may include redness and itching. High concentrations of dusts may cause irritation to the eyes causing burning, redness, and tearing. This product is not expected to be toxic if ingested.

Overexposure to airborne crystalline silica can cause silicosis, a chronic and progressively debilitating disease, characterized by the formation of silica-containing scar tissue in the lungs. Symptoms of silicosis include coughing, difficulty breathing, wheezing and progressive impairment of lung function. In addition to silicosis, epidemiology studies show limited evidence of an excess of lung cancer in occupations involving exposures to crystalline silica, such as stone cutters and granite industry workers.

Individuals with chronic respiratory disorders may be adversely affected by any fume or airborne particulate matter exposure. Persons with preexisting skin disorders may be more susceptible to the effects of this material.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Hazard statements:

H333: May be harmful if inhaled

H350: May cause cancer

Acute Oral toxicity: cat 4

Inhalation toxicity: cat 4

COMPOSITION/INFORMATION ON INGREDIENTS

Material	CAS Number	%
Crystalline Silica and other natural stone	14808-60-7	>85
Cristobalite	14464-46-1	<50
Polymeric resin		7-15
Additives		0-8

FIRST AID MEASURES

Eye Contact: Flush immediately with copious amounts of water for a minimum of 15 minutes. Seek immediate medical attention.

Skin Contact: Wash affected area with soap and plenty of water. Seek medical attention if adverse effect occurs.

Inhalation: Remove person to fresh air. If breathing is difficult, or has stopped, administer artificial respiration (mouth-to-mouth) or oxygen as indicated. Call a physician.

Ingestion: Product in its marketed form is inert. If large amounts are swallowed, seek medical attention or advice.

FIRE FIGHTING MEASURES

Auto ignition: Quartz surfaces products can be combusted only with difficulty.

Fire Spreading Rating: 5

Smoke Developed Rating: 25

Extinguishing Media: Water, Dry Chemical, CO2 and Foam.

Special Fire Fighting Procedures: Keep personnel away and upwind of fire. Use selfcontained breathing apparatus with full face mask.

Unusual Fire and Explosion Hazards: Decomposition products resulting from the polymer and pigments degrading at elevated temperatures include various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Solid slabs can simply be gathered and disposed of as necessary. If large amounts of dust or wastes are created by cutting process, vacuum or sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust. Wear suitable respiratory protection and protective clothing where necessary. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or local Waste Management Authority. Dispose of waste in accordance with local, state and federal regulation.

HANDLING AND STORAGE

Handling/Storage: Avoid breathing dust. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Good industrial hygiene practices should be followed when handling this material. Product is heavy and breakable; handle with care to avoid injury and prevent damage.

EXPOSURE CONTROLS / PERSONAL PROTECTION

Reference	Substance	Guideline or limit (mg/m ³)
OSHA (29 CFR 1910.1000-Table Z-3) OSHA Vacated PELs	Respirable crystalline silica: quartz, cristobalite, and triymite	Total dust, (30 mg/m ³ / % SiO ₂ + 2); Respirable dust, (10 mg/m ³ / % SiO ₂ + 2) as 8hr TWA's 0.1 mg/m ³ TWA (respirable dust)
ACGIH (2010)	Respirable crystalline silica: quartz, cristobalite, and triymite	0.025 mg/m ³ (8hr TWA)
NIOSH	Respirable crystalline silica: quartz, cristobalite, and triymite	0.05 mg/m ³ (8hr TWA)

Abbreviations: TWA = time-weighted average, ACGIH = American Conference of Governmental Industrial Hygienists, Inc. OSHA=Occupational Safety and Health Administration, NIOSH=National Institute of Occupational Safety and Health.

Engineered Controls: Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS. General room ventilation is satisfactory under anticipated use conditions. Generally, machinery and tools involving the use of water are required.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: If eye contact while using this product may be anticipated, wear appropriate safety glasses with side shields or chemical goggles as described by OSHA's eye and face protection regulations in 29CFR 1910.133 or European Standard EN166.

Respiratory Protection: Respiratory equipment approved by NIOSH/MSHA for protection against organic vapors and dusts is necessary to avoid inhalation of excessive air contaminants. The appropriate respirator selection depends on the type and magnitude of exposure (refer to 29 CFR 1910.134 for appropriate NIOSH approved respirators and to the NIOSH Pocket Guide to Chemical Hazards, DHHS (NIOSH) Publication NO. 2001-145 for equipment selection). Use a positive pressure air supplied respirator if there is a potential for an uncontrolled release, exposure levels are not known or under any other circumstances where air purifying respirators may not provide adequate protection.

Skin Protection: During cutting, grinding or sanding operations use body protection appropriate for task including work gloves if handling sharp or rough edges and steel-toed shoes if lifting product.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Appearance: Multi-colored engineered stone

Odor: Odorless

pH: NA

Specific Gravity: 2.4

Water Solubility: Insoluble

Flash Point: 490oC

Melting Point: NA

Boiling Point: NA

Vapor Pressure: NA

% Volatiles: NA

Viscosity: NA

Flash Point: NA

Flammable Limits in Air (% by Volume): NA

Hazardous Decomposition Products: Thermal decomposition can release various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

Hazardous Polymerization: Will not occur

TOXICOLOGICAL INFORMATION

Acute Effects

Crystalline Silica: Inhalation (human) LCLo: 0.3mg/m³/10Y
 Inhalation (human) TCLo: 16mppcf/8H/17,9Y
 Intermittent; focal fibrosis, (pneumoconiosis),
 cough, dyspnea.
 Inhalation (rat) TCLo: 50mg/m³/6H/71W
 Intermittent; liver – tumors
 Oral LD50 RAT: 500 mg/kg

Chronic Effects

Crystalline Silica

Silicosis: caused by the inhalation and retention of respirable crystalline silica dust.

Carcinogenicity: The International Agency for Research on Cancer (IARC) concluded that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)." The National Toxicology Program (NTP), in its Ninth Annual Report on Carcinogens, concluded that silica, crystalline (respirable) is "known to be a carcinogen, based on sufficient evidence in experimental animals and in humans." The U.S. Occupational Safety and Health Administration (OSHA) does regulate crystalline silica (quartz) as a carcinogen. The American Conference of Governmental Industrial Hygienist (ACGIH), noted in the "TLV & BEIs" book, version of 2011, that silica, crystalline (respirable) and cristobalite is A2 (Suspected Human Carcinogen - human data are accepted as adequate in quality but are conflicting or insufficient to classify the agent as a confirmed human carcinogen).

The American Thoracic Society position on the issue of silica carcinogenicity was published in Adverse Effects of Crystalline Silica Exposure, American Journal of Respiratory and Critical Care Medicine, Vol. 155, pp. 761-765 (1997). The official statement concluded that "The available data support the conclusion that silicosis produces increased risk for bronchogenic carcinoma. The cancer risk may also be increased by smoking and other carcinogens in the workplace."

Aggravation of Pre-existing Conditions: Inhalation may increase the progression of tuberculosis; susceptibility is apparently not increased. Persons with impaired respiratory function may be more susceptible to the effects of this substance. Smoking can increase the risk of lung injury.

Mutagenicity: No Data

Reproductive Effects: No Data

Developmental Effects: No Data

Carcinogenicity:

Material

Silica, Crystalline (quartz and cristobalite)

IARC NTP OSHA ACGIH

1 X yes A2

ECOLOGICAL INFORMATION

Toxicity is expected to be low based on insolubility in water.

Environmental Fate: ND

Environmental Toxicity: ND

ISO 14001 Certification: Lumina Stone is ISO 14001 certified for Environmental Management Systems.

GREENGUARD Certification: Lumina Stone is compliant with GREENGUARD standard.

Environmental Fate: No information found

Environmental Toxicity: No information found

DISPOSAL CONSIDERATIONS

Waste Disposal Method: Preferred options for disposal are (1) recycling, (2) incineration with energy recovery, and (3) landfill.

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of in accordance with federal, state and local requirements.

TRANSPORTATION INFORMATION

ADR/RID/IMO/ICAO /US DOT	Proper Shipping Name	Not Regulated
	Hazard Class	Not Regulated
	ID Number	Not Regulated
	Packaging Group	Not Regulated

REGULATORY INFORMATION

U.S. Federal Regulations:

SARA Title III Hazard Classes:

Fire Hazard: No

Reactive Hazard: No

Release of Pressure: No

Acute Health Hazard: No

Chronic Health Hazard: Yes

TSCA: All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements

U.S. State Regulations: California Prop 65 List: Crystalline silica is classified as a substance known to the state of California to be a carcinogen.

Other Regulations:

EU Marking and Labeling

Symbol: Harmful

HEALTH HAZARDS:

H333: May be harmful if inhaled

H350: May cause cancer

PREVENTION

P260 - Do not breathe dust generated in the cutting, grinding and polishing processes.

P264 - Wash face and hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.

P284 - Wear respiratory protection for particles (P3).

FIRST AID MEASURES

P314 - Get medical advice/attention if you feel unwell.

DISPOSAL

P501 - Dispose of remains in accordance with local regulation.

R/S PHRASES

R20 - Harmful by inhalation

R48 - Danger of serious damage to health by prolonged exposure.

S22 - Do not breathe the dust.

S38 - Use personal protective equipment P3.

Classification according to directive 1999/45/EC

Inventory Information: The substances in this preparation have been checked against the European Inventory of Existing Commercial Substances (EINECS), the European List of Notified Chemical Substances (ELINCS), and the No Longer Polymer (NLP) list. Substances not identified on these inventories are exempt.

OTHER INFORMATION

National Fire Protection Association NFPA(R) and Hazardous Materials Identification System (HMIS) Hazard Ratings:

Health Hazard: 1
Flammability: 0
Reactivity: 0

Key Legend Information:

NA – Not Applicable
ND – Not Determined
ACGIH – American Conference of Governmental Industrial Hygienists
OSHA – Occupational Safety and Health Administration
PEL – Permissible Exposure Limit
TWA – Time Weighted Average
STEL – Short Term Exposure Limit
NTP – National Toxicology Program
TLV – Threshold Limit Value

The information contained herein is based on the data available to us and is believed to be correct. However, Lumina Stone makes no warranties, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof.

Check with Lumina Stone before using or supplying this product for other applications, different to those previously stated.

In addition, the contents of this safety data sheet must not be interpreted as a recommendation to use any product in violation of the laws, safety practices or patents in force on any material or its use. It is the responsibility of the recipient of our product to check the corresponding rules and regulations. Under no circumstances does the data contained in this Safety Data Sheet constitute a guarantee of specific properties or create any contractual relationship.

This Safety Data Sheet (SDS) is according to the CLP Regulation, (EC) No 272/2008. For further information follow the instructions in the Respirable Crystalline Silica – Health Hazards & Protection Guide published by the manufacturer.

Further information is available at <http://www.nepsi.eu/> and in the Guide to Good Practice for the Agreement on Workers' Health Protection Through the Good Handling and Use of Crystalline Silica and Products Containing It.