

USG Boral ME Auratone FIRECODE™ Base Material Acoustical Ceiling Panels

1. Identification

Product identifier	USG BORAL ME Auratone FIRECODE™ Base Material Acoustical Ceiling Panels
Additional Products	Radar™ FIRECODE™, Clean Room™ FIRECODE™, Olympia II™ FIRECODE™, Olympia II Micro™ FIRECODE™, Omni™ FIRECODE™, Metal Face FIRECODE™, Cross Fissured FIRECODE™ Acoustical Ceiling Panels
Synonyms	Acoustical Ceiling Tiles and Panels, Water Felted Mineral Fiber Ceiling Panels/Tiles
Recommended use	Interior use
Recommended restrictions	Use in accordance with manufacturer's recommendations.
Manufacturer/Importer/Supplier/ Distributor information/Company name	USG Middle East Ltd 7410 (WASIL) Street #23, Cross 76 (Right) Second Industrial City Dammam 34326 – 4201, Kingdom of Saudi Arabia Tel: +966 13 812 0995 / Fax: +966 13 812 1029 E-mail: info@usgme.com Website: https://www.usgboral.com/en_me/

2. Hazard(s) identification

Emergency Overview	This product is not expected to produce any unusual hazards during normal use according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. Man-made mineral fibers have been classified by the European Union as irritating to skin.
Signal Word	Void
Hazard Statement	Void

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Slag wool fiber	N/A	< 65
Perlite	93763-70-3	< 25
Kaolin	1332-58-7	< 20
Cellulose	9004-34-6	< 10
Starch	9005-25-8	< 10
Limestone	1317-65-3	< 5
Calcium carbonate	471-34-1	< 2

Impurities

Chemical name	CAS number	%
Crystalline silica (Quartz)	14808-60-7	< 3

Composition comments

All concentrations are in percent by weight unless ingredient is a gas.

Raw materials in this product contain respirable crystalline silica as an impurity. The weight percent of respirable crystalline silica found in this product is $\leq 2.86\%$. Exposures to respirable crystalline silica during the normal use of this product must be determined by workplace hygiene testing.

Raw materials and/or coatings in this product contain small amounts of titanium dioxide, which has been classified as possibly carcinogenic to humans by the International Agency for Research on Cancer (IARC). However, per IARC "no significant exposure to primary particles of titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints" (1). See Section 16 for further information.

European Commission (EC) Annex number for Slag Wool Fibers: 650-016-00-2

4. First-aid measures**Inhalation**

Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Move injured person into fresh air and keep person calm under observation. Get medical attention if symptoms persist.

Skin contact

Contact with dust: Rinse area with plenty of water. Get medical attention if irritation develops or persists.

Eye contact

Dust in the eyes: Do not rub eyes. Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Under normal conditions of intended use, this material does not pose a risk to health. Dust may irritate throat and respiratory system and cause coughing.

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.

5. Fire-fighting measures**Suitable extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Not applicable.

Specific hazards arising from the chemical

Not a fire hazard.

Special protective equipment and precautions for firefighters

Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

Use standard firefighting procedures and consider the hazards of other involved materials.

Specific methods

Cool material exposed to heat with water spray and remove it if no risk is involved.

General fire hazards

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

See Section 8 of the SDS for Personal Protective Equipment.

Methods and materials for containment and cleaning up

No specific clean-up procedure noted. For waste disposal, see Section 13 of the SDS.

Environmental precautions

Avoid discharge to drains, sewers, and other water systems.

7. Handling and storage

Precautions for safe handling

Use work methods which minimize dust production. Avoid inhalation of dust and contact with skin and eyes. Wear appropriate personal protective equipment. Wash hands after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store away from incompatible materials.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Slag wool fiber (CAS N/A)	TWA	5 mg/m ³	Fiber, respirable (diameter ≤ 3.5 μm and length ≥ 10 μm)
		15 mg/m ³	Fiber, total

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

Components	Type	Value	Form
Calcium carbonate (CAS 471-34-1)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Cellulose (CAS 9004-34-6)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Kaolin (CAS 1332-58-7)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Limestone (CAS 1317-65-3)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.
Starch (CAS 9005-25-8)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

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

Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.3 mg/m ³	Total dust.
		0.1 mg/m ³	Respirable.

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Cellulose (CAS 9004-34-6)	TWA	10 mg/m ³	
Kaolin (CAS 1332-58-7)	TWA	2 mg/m ³	Respirable fraction.
Slag wool fiber (CAS N/A)	TWA	1 fibers/cm ³	Fiber, respirable (length > 5 μm and aspect ratio ≥ 3:1)
Starch (CAS 9005-25-8)	TWA	10 mg/m ³	

Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.025 mg/m ³	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical

Hazards

Components	Type	Value	Form
Calcium carbonate (CAS 471-34-1)	TWA	5 mg/m ³	Respirable.
Cellulose (CAS 9004-34-6)	TWA	10 mg/m ³	Total
		5 mg/m ³	Respirable.
Kaolin (CAS 1332-58-7)	TWA	10 mg/m ³	Total
		5 mg/m ³	Respirable.

US. NIOSH: Pocket Guide to Chemical

Hazards

Components	Type	Value	Form
Limestone (CAS 1317-65-3)	TWA	10 mg/m ³	Total
		5 mg/m ³	Respirable.
Perlite (CAS 93763-70-3)	TWA	10 mg/m ³	Total
		5 mg/m ³	Respirable.
Slag wool fiber (CAS N/A)	TWA	10 mg/m ³	Total
		3 mg/m ³	Fiber, respirable (diameter ≤ 3.5 μm and length ≥ 10 μm)
Starch (CAS 9005-25-8)	TWA	5 mg/m ³	Fiber, total
		5 mg/m ³	Respirable.
		10 mg/m ³	Total

Impurities	Type	Value	Form
Crystalline silica (Quartz) (CAS 14808-60-7)	TWA	0.05 mg/m ³	Respirable dust.

Biological limit values

Appropriate engineering controls

No biological exposure limits noted for the ingredient(s).

Provide sufficient ventilation for operations causing dust formation. Observe occupational exposure limits and minimize the risk of exposure. Cut and trim with a utility knife or hand saw to minimize dust levels. If a router is used it must have a dust collection system. Operations such as power cutting, power kerfing or using compressed air to remove dust are not recommended (2). See Section 16 for further information.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear approved safety goggles.

Skin protection

Hand protection

It is a good industrial hygiene practice to minimize skin contact. For prolonged or repeated skin contact use suitable protective gloves.

Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved air purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use positive pressure, air-supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respirator protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

Thermal hazards

None.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment separately from regular wash. Observe any medical surveillance requirements.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Panel.
Color	White or colored surface; beige/gray core.
Odor	Low to no odor.
Odor threshold	Not applicable.
pH	9
Melting point/freezing point	Not applicable.
Initial boiling point and boiling range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not applicable.
Explosive limit - upper (%)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	0.31 - 0.34 (H ₂ O=1)
Solubility(ies)	
Solubility (water)	Very low solubility in water.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition temperature	2200 °F (1204.4 °C) (Slag wool)
Viscosity	Not applicable.
Other information	
Bulk density	19 - 21 lb/ft ³
VOC (Weight %)	0%

10. Stability and reactivity

Reactivity

Chemical stability

Possibility of hazardous reactions

Conditions to avoid

Incompatible materials

Hazardous decomposition products

The product is stable and non reactive under normal conditions of storage and transport.

Material is stable under normal conditions.

Hazardous polymerization does not occur.

Contact with incompatible materials.

Strong oxidizing agents.

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation

Inhalation of dusts may cause respiratory irritation.

Skin contact

May cause irritation through mechanical abrasion.

Eye contact

Direct contact with eyes may cause temporary irritation.

Ingestion

Ingestion may cause irritation and stomach discomfort.

Symptoms related to the physical, chemical and toxicological characteristics

Under normal conditions of intended use, this material does not pose a risk to health.

Information on toxicological effects

Acute toxicity

Not expected to be a hazard under normal conditions of intended use.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization

No data available, but none expected.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available, but none expected.

Carcinogenicity

Repeated and prolonged exposures to high levels of respirable crystalline silica may cause cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

Crystalline silica (Quartz) (CAS 14808-60-7)

1 Carcinogenic to humans.

NTP Report on Carcinogens

Crystalline silica (Quartz) (CAS 14808-60-7)

Known To Be Human Carcinogen.

OSHA Specifically Regulated

Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity

No data available, but none expected.

Specific target organ toxicity - single exposure

No data available, but none expected.

Specific target organ toxicity - repeated exposure

May damage lung tissue through repeated and prolonged exposure to high levels of respirable crystalline silica particles.

Aspiration hazard

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

Chronic effects

Prolonged and routine inhalation of high levels of respirable crystalline silica particles can lead to the lung disease known as silicosis. Some studies show excess numbers of cases of scleroderma, connective tissue disorders, lupus, rheumatoid arthritis, chronic kidney diseases and end-stage kidney disease in workers exposed to respirable crystalline silica. Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

12. Ecological information

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent releases can have a harmful or damaging effect on the environment.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

No data available.

Mobility in soil

None expected.

Other adverse effects

13. Disposal considerations

Disposal instruction

Dispose in accordance with applicable federal, state, and local regulations. Recycle responsibly.

Local disposal regulations

Dispose of in accordance with local regulations.

Hazardous waste code

Not regulated.

Waste from residues / unused products

Dispose of in accordance with local regulations.

Contaminated packaging

Dispose of in accordance with local regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable. This product is a solid. Therefore, bulk transport is governed by IMSBC code.

15. Regulatory information

Saudi Arabian Inventory of Chemical

Substance:

CAS #	65997-17-3	Glass, Oxide
CAS #	93763-70-3	Perlite
CAS #	1332-58-7	Kaolin
CAS #	9004-34-6	Cellulose
CAS #	9005-25-8	Starch

16. Other information, including date of preparation or last revision

Issue date

11-Apr-18

Revision date

-

Version

1

Further information

Slag Wool Fiber: Large morbidity and mortality studies of both European and North American mineral wool manufacturing workers have been conducted. These studies have found no significant association of non-malignant (i.e. fibrosis) or malignant (i.e., lung cancer or mesothelioma) lung disease and exposures to slag wool fibers and have not established a causal relationship between exposure and non-malignant or malignant diseases. In 2001, the International Agency for Research on Cancer (IARC) assigned slag wool fiber to the Group 3 category [“not classifiable as to carcinogenicity to humans”]. The synthetic mineral fiber used in this product is exonerated from classification as a carcinogen in accordance with Note Q in the EU Commission Directive 97/69/EC.

Crystalline silica: Raw materials in this product may contain respirable crystalline silica as an impurity. Exposures to respirable crystalline silica are not expected during the normal use of this product. However, actual levels must be determined by workplace hygiene testing. Industrial hygiene testing by RJ Lee Group showed that cutting with a utility knife or a router equipped with a dust collection system did not produce airborne respirable crystalline in exceedance of OSHA PELs. However, cutting with a power saw, even with a dust collection system in place, did produce some exceedances. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer.

Titanium dioxide: Raw materials and/or coatings in this product contain small amounts of titanium dioxide. The International Agency for Research on Cancer (IARC) has determined that titanium dioxide is possibly carcinogenic to humans (Group 2B) based on inadequate evidence in humans and sufficient evidence in experimental animals. This conclusion relates to long-term inhalation exposure to high concentrations of pigimentary (powdered) or ultrafine titanium dioxide. However, no significant exposure to primary particles of titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as in paints. The available human studies do not suggest an association between occupational exposure to titanium dioxide and risk for cancer (1).

The American Conference of Governmental Industrial Hygienists (ACGIH) has designated this chemical as not classifiable as a human carcinogen (A4).

The US National Toxicology Program (NTP) has not listed this chemical in its report on carcinogens.

NFPA Ratings:

Health: 1

Flammability: 0

Physical hazard: 0

NFPA Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

HMIS[®] ratings

Health: 1*

Flammability: 0

Physical hazard: 0

NFPA ratings



Abbreviations and acronyms

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

IARC: International Agency for Research on Cancer

TWA: Time Weighted Average

PEL: Permissible Exposure Limit

Disclaimer

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.