# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **USG® Radar™ Basic FIRECODE™ Acoustical Ceiling Panels**

**Other means of identification**

**SDS number** 41999270008

**Additional Products** Radar™ FIRECODE™, CLEAN ROOM™ FIRECODE™, Pebbled™ FIRECODE™, Rock Face™ FIRECODE™, Superpanel™ FIRECODE™, Touchstone™ FIRECODE™, Fifth Avenue™ FIRECODE™, Fissured™ Basic FIRECODE™, FIRECODE™ Plenum Acoustical Ceiling Panels

**Synonyms** Ceiling Tiles, 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**

**Manufacturer** United States Gypsum Company

**Address** 550 West Adams Street
Chicago, Illinois 60661-3637

**Telephone** 1-800-874-4968

**Website** www.usg.com

**Emergency phone number** 1-800-507-8899

**Supplier** CGC Inc.

**Address** 350 Burnhamthorpe Road West, 5th Floor
Mississauga, Ontario L5B 3J1
A Subsidiary of USG Corporation

**Telephone** 1-800-387-2690

**Website** www.cgcinc.com

**Emergency phone number** 1-800-507-8899

## 2. Hazard identification

**Physical hazards** Not classified.

**Health hazards**

| | |
|---|---|
| Carcinogenicity | Category 1 |
| Specific target organ toxicity following repeated exposure | Category 2 (Lung) |

**Label elements**

**Signal word** Danger

**Hazard statement** May cause cancer. May cause damage to organs (Lung) through prolonged or repeated exposure.

**Precautionary statement**

**Prevention** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection.

**Response** IF exposed or concerned: Get medical advice/attention.

**Storage** Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other hazards** None known.

**Supplemental information** None.

## 3. Composition/information on ingredients

**Mixtures**

| Chemical name | Common name and synonyms | 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, synthetic | | 471-34-1 | < 2 |

| Impurities | CAS number | % |
|---|---|---|
| Crystalline silica (Quartz) | 14808-60-7 | < 3 |

**Composition comments**

All concentrations are in percent by weight.

Raw materials in this product contain respirable crystalline silica as an impurity. The weight percent of respirable crystalline silica found in this product is < 3%. 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.

## 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. Prolonged exposure may cause chronic effects.

**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 minimise 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 (see section 10 of the SDS). |

## 8. Exposure controls/personal protection

**Occupational exposure limits**

**US. ACGIH Threshold Limit Values**

| Components | Type | Value | Form |
|---|---|---|---|
| Cellulose (CAS 9004-34-6) | TWA | 10 mg/m3 | |
| Kaolin (CAS 1332-58-7) | TWA | 2 mg/m3 | Respirable fraction. |
| Slag wool fiber | TWA | 1 fibers/cm3 | Fiber, respirable (length > 5 µm and aspect ratio ≥ 3:1) |
| Starch (CAS 9005-25-8) | TWA | 10 mg/m3 | |
| **Impurities** | **Type** | **Value** | **Form** |
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.025 mg/m3 | Respirable fraction. |

**Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)**

| Components | Type | Value | Form |
|---|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | TWA | 10 mg/m3 | |
| Cellulose (CAS 9004-34-6) | TWA | 10 mg/m3 | |
| Kaolin (CAS 1332-58-7) | TWA | 2 mg/m3 | Respirable. |
| Limestone (CAS 1317-65-3) | TWA | 10 mg/m3 | |
| Perlite (CAS 93763-70-3) | TWA | 3 mg/m3 | Respirable particles. |
| | | 10 mg/m3 | Total particulate. |
| Slag wool fiber | TWA | 0.2 fibers/cm3 | Fiber. |
| | | 5 mg/m3 | Total particulate. |
| | | 5 mg/m3 | Fiber, total |
| Starch (CAS 9005-25-8) | TWA | 10 mg/m3 | |
| **Impurities** | **Type** | **Value** | **Form** |
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.025 mg/m3 | Respirable particles. |

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

| Components | Type | Value | Form |
|---|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | STEL | 20 mg/m3 | Total dust. |
| | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

| Components | Type | Value | Form |
|---|---|---|---|
| Cellulose (CAS 9004-34-6) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |
| Kaolin (CAS 1332-58-7) | TWA | 2 mg/m3 | Respirable. |
| Limestone (CAS 1317-65-3) | STEL | 20 mg/m3 | Total dust. |
| | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |
| Perlite (CAS 93763-70-3) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |
| Slag wool fiber | TWA | 0.2 fibers/cm3 | Fiber. |
| | | 5 mg/m3 | Inhalable fibers. |
| Starch (CAS 9005-25-8) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Total dust. |

| Impurities | Type | Value | Form |
|---|---|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.025 mg/m3 | Respirable fraction. |

**Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)**

| Components | Type | Value | Form |
|---|---|---|---|
| Cellulose (CAS 9004-34-6) | TWA | 10 mg/m3 | |
| Kaolin (CAS 1332-58-7) | TWA | 2 mg/m3 | Respirable fraction. |
| Starch (CAS 9005-25-8) | TWA | 10 mg/m3 | |

| Impurities | Type | Value | Form |
|---|---|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.025 mg/m3 | Respirable fraction. |

**Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)**

| Components | Type | Value | Form |
|---|---|---|---|
| Cellulose (CAS 9004-34-6) | TWA | 10 mg/m3 | |
| Kaolin (CAS 1332-58-7) | TWA | 2 mg/m3 | Respirable fraction. |
| Perlite (CAS 93763-70-3) | TWA | 3 mg/m3 | Respirable fraction. |
| | | 10 mg/m3 | Inhalable fraction. |
| Slag wool fiber | TWA | 0.5 fibers/cc | Respirable fibers. |
| | | 5 mg/m3 | Inhalable fraction. |
| Starch (CAS 9005-25-8) | TWA | 10 mg/m3 | |

| Impurities | Type | Value | Form |
|---|---|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.1 mg/m3 | Respirable fraction. |

**Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)**

| Components | Type | Value | Form |
|---|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | TWA | 10 mg/m3 | Total dust. |
| Cellulose (CAS 9004-34-6) | TWA | 10 mg/m3 | Total dust. |
| Kaolin (CAS 1332-58-7) | TWA | 5 mg/m3 | Respirable dust. |
| Limestone (CAS 1317-65-3) | TWA | 10 mg/m3 | Total dust. |
| Perlite (CAS 93763-70-3) | TWA | 10 mg/m3 | Total dust. |
| Slag wool fiber | TWA | 1 fibers/cm3n | Fiber. |
| | | 10 mg/m3 | fibers, total dust |
| Starch (CAS 9005-25-8) | TWA | 10 mg/m3 | Total dust. |

**Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)**

| Impurities | Type | Value | Form |
|---|---|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | TWA | 0.1 mg/m3 | Respirable dust. |

**Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21)**

| Components | Type | Value | Form |
|---|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | 15 minute | 20 mg/m3 | |
| | 8 hour | 10 mg/m3 | |
| Cellulose (CAS 9004-34-6) | 15 minute | 20 mg/m3 | Fiber. |
| | 8 hour | 10 mg/m3 | Fiber. |
| Kaolin (CAS 1332-58-7) | 15 minute | 4 mg/m3 | Respirable fraction. |
| | 8 hour | 2 mg/m3 | Respirable fraction. |
| Limestone (CAS 1317-65-3) | 15 minute | 20 mg/m3 | |
| | 8 hour | 10 mg/m3 | |
| Perlite (CAS 93763-70-3) | 15 minute | 20 mg/m3 | |
| | 8 hour | 10 mg/m3 | |
| Slag wool fiber | 15 minute | 10 mg/m3 | Inhalable fraction. |
| | 8 hour | 0.2 fibers/cc | Respirable fibers. |
| | | 5 mg/m3 | Inhalable fraction. |
| Starch (CAS 9005-25-8) | 15 minute | 20 mg/m3 | |
| | 8 hour | 10 mg/m3 | |

| Impurities | Type | Value | Form |
|---|---|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | 8 hour | 0.05 mg/m3 | Respirable fraction. |

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Provide sufficient ventilation for operations causing dust formation. Observe occupational exposure limits and minimise 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 minimise 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. 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.

**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.

**Colour** White or colored surface; beige/gray core.

**Odour** Low to no odour.

**Odour 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. |
| **Vapour pressure** | Not applicable. |
| **Vapour density** | Not applicable. |
| **Relative density** | 0.31 - 0.34 (H20=1) |
| **Solubility(ies)** | |
| **Solubility (water)** | Very low solubility in water. |
| **Partition coefficient (n-octanol/water)** | Not applicable. |
| **Auto-ignition temperature** | Not applicable. |
| **Decomposition temperature** | 1204.4 °C (2200 °F) (Slag wool) |
| **Viscosity** | Not applicable. |
| **Other information** | |
| **Bulk density** | 19 - 21 lb/ft³ |
| **Explosive properties** | Not explosive. |
| **Oxidising properties** | Not oxidising. |
| **VOC** | 0 % |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non reactive under normal conditions of storage and transport. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | Hazardous polymerisation does not occur. |
| **Conditions to avoid** | Contact with incompatible materials. |
| **Incompatible materials** | Strong oxidising agents. |
| **Hazardous decomposition products** | No hazardous decomposition products are known. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Inhalation of dusts may cause respiratory irritation. Prolonged and repeated exposure to airborne respirable crystalline silica can cause silicosis and/or lung cancer. |
| **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** | Dust may irritate throat and respiratory system and cause coughing. |

**Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** | Not expected to be acutely toxic. |

| Components | Species | Test Results |
|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | | |
| **Acute** | | |
| **Oral** | | |
| LD50 | Rat | 6450 mg/kg |
| Kaolin (CAS 1332-58-7) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Rat | > 5000 mg/kg |
| **Inhalation** | | |
| LC50 | Rat | > 2 mg/l, 4 Hours |
| **Oral** | | |
| LD50 | Rat | > 5000 mg/kg |

**Skin corrosion/irritation** May cause irritation through mechanical abrasion.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

**Respiratory or skin sensitisation**

**Canada - Alberta OELs: Irritant**

| | |
|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | Irritant |

**Respiratory sensitisation** No data available, but none expected.

**Skin sensitisation** This product is not expected to cause skin sensitisation.

**Germ cell mutagenicity** No data available, but none expected.

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

**ACGIH Carcinogens**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | A2 Suspected human carcinogen. |
| Kaolin (CAS 1332-58-7) | A4 Not classifiable as a human carcinogen. |

**Canada - Alberta OELs: Carcinogen category**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | Suspected human carcinogen. |

**Canada - Manitoba OELs: carcinogenicity**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | Suspected human carcinogen. |
| Kaolin (CAS 1332-58-7) | Not classifiable as a human carcinogen. |

**Canada - Quebec OELs: Carcinogen category**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | Suspected carcinogenic effect in humans. |

**IARC Monographs. Overall Evaluation of Carcinogenicity**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | 1 Carcinogenic to humans. |

**US. National Toxicology Program (NTP) Report on Carcinogens**

| | |
|---|---|
| Crystalline silica (Quartz) (CAS 14808-60-7) | Known To Be Human Carcinogen. |

**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 spills can have a harmful or damaging effect on the environment.

| Components | | Species | Test Results |
|---|---|---|---|
| Calcium carbonate, synthetic (CAS 471-34-1) | | | |
| **Aquatic** | | | |
| *Acute* | | | |
| Fish | LC50 | Mosquitofish (Gambusia affinis affinis) | > 56000 mg/l |
| Kaolin (CAS 1332-58-7) | | | |
| **Aquatic** | | | |
| *Acute* | | | |
| Crustacea | LC50 | Daphnia magna | > 1.1 g/l, 48 Hours |

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** Bioaccumulation is not expected.

**Mobility in soil** No data available.

**Other adverse effects** None expected.

## 13. Disposal considerations

**Disposal instructions** 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** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations.

**Contaminated packaging** Dispose of in accordance with local regulations.

## 14. Transport information

**TDG**

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

**Canadian regulations** This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

**Controlled Drugs and Substances Act**

Not regulated.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**International regulations**

**Stockholm Convention**

Not applicable.

**Rotterdam Convention**

Not applicable.

**Kyoto Protocol**

Not applicable.

**Montreal Protocol**

Not applicable.

**Basel Convention**

Not applicable.

**International Inventories**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information

**Issue date** 13-November-2019

**Revision date** -

**Version No.** 01

**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 pigmentary (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.
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

**References**

1.) International Agency for Research on Cancer (IARC). Volume 93: Carbon Black, Titanium Dioxide, and Talc; (5. Summary of data reported). IARC, 2010. Available at: <http://monographs.iarc.fr/ENG/Monographs/vol93/mono93.pdf>

2.) North American Insulation Manufacturer's Association (NAIMA). Working Smart with Fiber Glass, Rock Wool and Slag Wool Products. NAIMA, 2007. Available at: <http://insulationinstitute.org/wp-content/uploads/2016/02/N059.pdf>

**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.