



Safety Data Sheet

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SECTION 1: Identification

1.1. Product identifier

3M Brand Cool Roofing Granules - 7480C (Corona, CA)

Product Identification Numbers

98-0213-4580-0, 98-0213-4590-9

1.2. Recommended use and restrictions on use

Recommended use

Granules for coating roofing shingles.

1.3. Supplier's details

| | |
|----------------------|---|
| MANUFACTURER: | 3M |
| DIVISION: | Industrial Mineral Products |
| ADDRESS: | 3M Center, St. Paul, MN 55144-1000, USA |
| Telephone: | 1-888-3M HELPS (1-888-364-3577) |

1.4. Emergency telephone number

1-800-364-3577 or (651) 737-6501 (24 hours)

SECTION 2: Hazard identification

2.1. Hazard classification

Carcinogenicity: Category 1A.

Specific Target Organ Toxicity (repeated exposure): Category 1.

2.2. Label elements

Signal word

Danger

Symbols

Health Hazard |

Pictograms



Hazard Statements

May cause cancer.
 Causes damage to organs through prolonged or repeated exposure:
 respiratory system |

Precautionary Statements

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/vapors/spray.
 Do not eat, drink or smoke when using this product.
 Wash thoroughly after handling.

Response:

IF exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.

Storage:

Store locked up.

Disposal:

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

2.3. Hazards not otherwise classified

None.

1% of the mixture consists of ingredients of unknown acute oral toxicity.

SECTION 3: Composition/information on ingredients

| Ingredient | C.A.S. No. | % by Wt |
|---|---------------|-----------|
| Dacite Porphyry (composition varies naturally, typically contains feldspars, amphibole, magnetite, ilmenite, biotite and epidote) | Mixture | 60 - 70 |
| Quartz (a component of Dacite Porphyry) | 14808-60-7 | 25 - 35 |
| Ceramic Coating | Trade Secret* | 5 - 7 |
| Chromium - Cobalt Containing Pigments | Mixture | 0.1 - 1.0 |
| Titanium Dioxide | 13463-67-7 | 0.5 - 1 |
| Inorganic Pigments | Mixture | 0.1 - 1 |
| Oil | 64742-52-5 | < 0.5 |

*The specific chemical identity and/or exact percentage (concentration) of this composition has been withheld as a trade secret.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Remove person to fresh air. If you feel unwell, get medical attention.

Skin Contact:

Wash with soap and water. If signs/symptoms develop, get medical attention.

Eye Contact:

Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.

If Swallowed:

Rinse mouth. If you feel unwell, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed

See Section 11.1. Information on toxicological effects.

4.3. Indication of any immediate medical attention and special treatment required

Not applicable

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Non-combustible. Use a fire fighting agent suitable for surrounding fire.

5.2. Special hazards arising from the substance or mixture

None inherent in this product.

5.3. Special protective actions for fire-fighters

No special protective actions for fire-fighters are anticipated.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate the area with fresh air.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Collect as much of the spilled material as possible. Use wet sweeping compound or water to avoid dusting. Sweep up. Place in a closed container approved for transportation by appropriate authorities. Clean up residue. Seal the container. Dispose of collected material as soon as possible.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not breathe dust/fume/gas/mist/vapors/spray. Granules are not respirable. Dust generated during handling may contain respirable material. 3M does not recommend material handling methods that could damage the coating or base mineral. In particular, roofing granules should not be conveyed pneumatically, via screw conveyors, or used as a sand blasting media. These uses can cause coating and base mineral attrition which may lead to increased levels of dust generation. For industrial or professional use only. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protective equipment (gloves, respirators, etc.) as required. Do not handle until all safety precautions have been read and understood.

7.2. Conditions for safe storage including any incompatibilities

No special storage requirements.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

If a component is disclosed in section 3 but does not appear in the table below, an occupational exposure limit is not available for the component.

| Ingredient | C.A.S. No. | Agency | Limit type | Additional Comments |
|---|-------------------|---------------|---|--------------------------------|
| Titanium Dioxide | 13463-67-7 | ACGIH | TWA:10 mg/m3 | A4: Not class. as human carcin |
| Titanium Dioxide | 13463-67-7 | CMRG | TWA(as respirable dust):5 mg/m3 | |
| Titanium Dioxide | 13463-67-7 | OSHA | TWA(as total dust):15 mg/m3 | |
| Quartz (a component of Dacite Porphyry) | 14808-60-7 | OSHA | TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.) | |
| Quartz (a component of Dacite Porphyry) | 14808-60-7 | ACGIH | TWA(respirable fraction):0.025 mg/m3 | A2: Suspected human carcin. |
| Oil | 64742-52-5 | CMRG | TWA:5 mg/m3;STEL:10 mg/m3 | |
| PETROLEUM DISTILLATES | 64742-52-5 | OSHA | TWA:2000 mg/m3(500 ppm) | |

ACGIH : American Conference of Governmental Industrial Hygienists

AIHA : American Industrial Hygiene Association

CMRG : Chemical Manufacturer's Recommended Guidelines

OSHA : United States Department of Labor - Occupational Safety and Health Administration

TWA: Time-Weighted-Average

STEL: Short Term Exposure Limit

CEIL: Ceiling

8.2. Exposure controls

8.2.1. Engineering controls

Provide local exhaust ventilation at transfer points. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below relevant Exposure Limits and/or control dust/fume/gas/mist/vapors/spray. If ventilation is not adequate, use respiratory protection equipment.

8.2.2. Personal protective equipment (PPE)

Eye/face protection

Select and use eye/face protection to prevent contact based on the results of an exposure assessment. The following eye/face protection(s) are recommended:

Safety Glasses with side shields

Skin/hand protection

No chemical protective gloves are required.

Respiratory protection

An exposure assessment may be needed to decide if a respirator is required. If a respirator is needed, use respirators as part of

a full respiratory protection program. Based on the results of the exposure assessment, select from the following respirator type(s) to reduce inhalation exposure:

Half facepiece or full facepiece air-purifying respirator suitable for particulates

For questions about suitability for a specific application, consult with your respirator manufacturer.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|----------------------------------|---|
| General Physical Form: | Solid |
| Specific Physical Form: | Granules |
| Odor, Color, Grade: | Various colors, slightly oily odor, typical particle size 0.84-2.0 mm |
| Odor threshold | <i>Not Applicable</i> |
| Melting point | <i>Not Applicable</i> |
| Flash Point | No flash point |
| Flammability (solid, gas) | Not Classified |
| Flammable Limits(LEL) | <i>Not Applicable</i> |
| Flammable Limits(UEL) | <i>Not Applicable</i> |
| Specific Gravity | 2.55 - 2.70 [Ref Std: WATER=1] |
| Solubility In Water | <i>Not Applicable</i> |
| Solubility- non-water | <i>Not Applicable</i> |
| Autoignition temperature | <i>Not Applicable</i> |
| Decomposition temperature | <i>Not Applicable</i> |
| Percent volatile | Nil |

SECTION 10: Stability and reactivity

10.1. Reactivity

This material is considered to be non reactive under normal use conditions.

10.2. Chemical stability

Stable.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

| <u>Substance</u> | <u>Condition</u> |
|------------------|------------------|
| None known. | |

SECTION 11: Toxicological information

The information below may not be consistent with the material classification in Section 2 if specific ingredient classifications are mandated by a competent authority. In addition, toxicological data on ingredients may not be reflected in the material classification and/or the signs and symptoms of exposure, because an ingredient may be present below the threshold for labeling, an ingredient may not be available for exposure, or the data may not be relevant to the material as a whole.

11.1. Information on Toxicological effects

Signs and Symptoms of Exposure

Based on test data and/or information on the components, this material may produce the following health effects:

Inhalation:

Respiratory Tract Irritation: Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

May cause target organ effects after inhalation.

Skin Contact:

Mechanical Skin irritation: Signs/symptoms may include abrasion, redness, pain, and itching.

Eye Contact:

Mechanical eye irritation: Signs/symptoms may include pain, redness, tearing and corneal abrasion.

Ingestion:

May be harmful if swallowed.

Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Target Organ Effects:

Prolonged or repeated exposure may cause:

Silicosis: Signs/symptoms may include breathlessness, weakness, chest pain, persistent cough, increased amounts of sputum, and heart disease.

Carcinogenicity:

Contains a chemical or chemicals which can cause cancer.

| Ingredient | CAS No. | Class Description | Regulation |
|---|----------------|--------------------------------|---|
| SILICA, CRYST AIRRESP | 14808-60-7 | Known human carcinogen | National Toxicology Program Carcinogens |
| Quartz (a component of Dacite Porphyry) | 14808-60-7 | Grp. 1: Carcinogenic to humans | International Agency for Research on Cancer |
| Titanium Dioxide | 13463-67-7 | Grp. 2B: Possible human carc. | International Agency for Research on Cancer |

Toxicological Data

If a component is disclosed in section 3 but does not appear in a table below, either no data are available for that endpoint or the data are not sufficient for classification.

Acute Toxicity

| Name | Route | Species | Value |
|---|--------------------------------|----------------|---|
| Overall product | Ingestion | | No data available; calculated ATE 2,000 - 5,000 mg/kg |
| Dacite Porphyry (composition varies naturally, typically contains feldspars, amphibole, magnetite, ilmenite, biotite and epidote) | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Quartz (a component of Dacite Porphyry) | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Quartz (a component of Dacite Porphyry) | Ingestion | | LD50 estimated to be > 5,000 mg/kg |
| Ceramic Coating | Dermal | | LD50 estimated to be > 5,000 mg/kg |
| Ceramic Coating | Ingestion | | LD50 estimated to be 2,000 - 5,000 mg/kg |
| Titanium Dioxide | Dermal | Rabbit | LD50 > 10,000 mg/kg |
| Titanium Dioxide | Inhalation-Dust/Mist (4 hours) | Rat | LC50 > 6.82 mg/l |
| Titanium Dioxide | Ingestion | Rat | LD50 > 10,000 mg/kg |
| Oil | Dermal | Rabbit | LD50 > 2,000 mg/kg |
| Oil | Ingestion | Rat | LD50 > 5,000 mg/kg |

ATE = acute toxicity estimate

Skin Corrosion/Irritation

| Name | Species | Value |
|---|---------|---------------------------|
| Dacite Porphyry (composition varies naturally, typically contains feldspars, amphibole, magnetite, ilmenite, biotite and epidote) | | No significant irritation |
| Quartz (a component of Dacite Porphyry) | | No significant irritation |
| Ceramic Coating | Rabbit | No significant irritation |
| Titanium Dioxide | Rabbit | No significant irritation |
| Oil | Rabbit | Minimal irritation |

Serious Eye Damage/Irritation

| Name | Species | Value |
|------------------|---------|---------------------------|
| Ceramic Coating | Rabbit | Mild irritant |
| Titanium Dioxide | Rabbit | No significant irritation |
| Oil | Rabbit | Mild irritant |

Skin Sensitization

| Name | Species | Value |
|------------------|------------------|-----------------|
| Titanium Dioxide | Human and animal | Not sensitizing |
| Oil | Guinea pig | Not sensitizing |

Respiratory Sensitization

| Name | Species | Value |
|------|---------|-------|
|------|---------|-------|

Germ Cell Mutagenicity

| Name | Route | Value |
|---|----------|--|
| Quartz (a component of Dacite Porphyry) | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Quartz (a component of Dacite Porphyry) | In vivo | Some positive data exist, but the data are not sufficient for classification |
| Ceramic Coating | In Vitro | Some positive data exist, but the data are not sufficient for classification |
| Titanium Dioxide | In Vitro | Not mutagenic |
| Titanium Dioxide | In vivo | Not mutagenic |

Carcinogenicity

| Name | Route | Species | Value |
|---|------------|-------------------------|--|
| Quartz (a component of Dacite Porphyry) | Inhalation | Human and animal | Carcinogenic |
| Ceramic Coating | Inhalation | Multiple animal species | Some positive data exist, but the data are not sufficient for classification |
| Titanium Dioxide | Ingestion | Multiple animal species | Not carcinogenic |
| Titanium Dioxide | Inhalation | Rat | Carcinogenic |
| Oil | Ingestion | Rat | Not carcinogenic |
| Oil | Dermal | Mouse | Some positive data exist, but the data are not sufficient for classification |

Reproductive Toxicity

Reproductive and/or Developmental Effects

| Name | Route | Value | Species | Test Result | Exposure Duration |
|------|-------|-------|---------|-------------|-------------------|
|------|-------|-------|---------|-------------|-------------------|

Target Organ(s)

Specific Target Organ Toxicity - single exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|------|------------|------------------------|--|---------|---------------------|-------------------|
| Oil | Inhalation | respiratory irritation | Some positive data exist, but the data are not sufficient for classification | | NOAEL Not available | |

Specific Target Organ Toxicity - repeated exposure

| Name | Route | Target Organ(s) | Value | Species | Test Result | Exposure Duration |
|---|------------|--------------------|--|-------------------------|---------------------|-----------------------|
| Quartz (a component of Dacite Porphyry) | Inhalation | silicosis | Causes damage to organs through prolonged or repeated exposure | Human | NOAEL Not available | occupational exposure |
| Ceramic Coating | Inhalation | pulmonary fibrosis | Some positive data exist, but the data are not sufficient for classification | Multiple animal species | NOAEL not available | |
| Ceramic Coating | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Human | NOAEL not available | occupational exposure |
| Titanium Dioxide | Inhalation | respiratory system | Some positive data exist, but the data are not sufficient for classification | Rat | LOAEL 0.010 mg/l | 2 years |
| Titanium Dioxide | Inhalation | pulmonary fibrosis | All data are negative | Human | NOAEL Not available | occupational exposure |

Aspiration Hazard

| Name | Value |
|------|-------|
| | |

Please contact the address or phone number listed on the first page of the SDS for additional toxicological information on this material and/or its components.

SECTION 12: Ecological information**Ecotoxicological information**

Please contact the address or phone number listed on the first page of the SDS for additional ecotoxicological information on this material and/or its components.

Chemical fate information

Please contact the address or phone number listed on the first page of the SDS for additional chemical fate information on this material and/or its components.

SECTION 13: Disposal considerations**13.1. Disposal methods**

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

Dispose of waste product in a permitted industrial waste facility.

EPA Hazardous Waste Number (RCRA): Not regulated

SECTION 14: Transport Information

For Transport Information, please visit <http://3M.com/Transportinfo> or call 1-800-364-3577 or 651-737-6501.

SECTION 15: Regulatory information

15.1. US Federal Regulations

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - Yes Delayed Hazard - Yes

15.2. State Regulations

Contact 3M for more information.

California Proposition 65

| <u>Ingredient</u> | <u>C.A.S. No.</u> | <u>Classification</u> |
|---|-------------------|-----------------------|
| SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE) | None | Carcinogen |
| Titanium Dioxide | 13463-67-7 | Carcinogen |

WARNING: This product contains a chemical known to the State of California to cause cancer.

15.3. Chemical Inventories

The components of this product are in compliance with the chemical notification requirements of TSCA.

Contact 3M for more information.

15.4. International Regulations

Contact 3M for more information.

This SDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: Other information

NFPA Hazard Classification

Health: 0 **Flammability:** 0 **Instability:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

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