

Section 1 - Product and Company Identification

Material Name	- APOC #11 Premium Roofing Granules
Chemical Category	- Article
Product Code	- AP-0115
Product Use	- Granules for coating roofing shingles
Distributor	- APOC 4161 E. 7th Avenue Tampa, FL 33605 United States
Telephone	
Technical	- 813-248-2101
<u>Emergency</u>	- 800-424-9300
Last Revision Date	- 3/31/2016

Section 2 - Hazards Identification

Signal Word – Danger

GHS Hazards and Precautions

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

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/Disposal	Store locked up. Dispose of contents/container in accordance with applicable local/regional/national/international regulations.



Physical Form	- Solid Granules
Color	- White
Odor	- Slight Oily
Flash Point	- Not Applicable
OSHA(HCS2012)	- Carcinogenicity: Category 1A. Specific Target Organ Toxicity (repeated exposure): Category 1.
Route Of Entry	- Inhalation, Skin, Eye, Ingestion/Oral
Medical Conditions Aggravated by Exposure	- Silicosis: Signs/symptoms may include breathlessness, weakness, chest pain, persistent cough, increased amounts of sputum, and heart disease.

Potential Health Effects

Inhalation

Acute (Immediate)	- Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.
Chronic (Delayed)	- Silicosis

- Skin**
- Acute (Immediate)** - Signs/symptoms may include abrasion, redness, pain, and itching.
 - Chronic (Delayed)** - This product is not expected to cause skin sensitization.
- Eye**
- Acute (Immediate)** - Signs/symptoms may include pain, redness, tearing and corneal abrasion..
 - Chronic (Delayed)** - Not Classified
- Ingestion**
- Acute (Immediate)** - May be harmful if swallowed. Gastrointestinal Irritation: Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.
 - Chronic (Delayed)** - No data available
- Carcinogenic Effects** - Contains a chemical or chemicals which can cause cancer.

Carcinogenic Effects			
	CAS	IARC	NTP
SILICA, CRYST AIRRESP	14808-60-7		Known human carcinogen
Quartz (a component of Dacite Porphyry)	14808-60-7	Grp. 1: Carcinogenic to humans	
Titanium Dioxide	13463-67-7	Grp. 2B: Possible human carc.	

Section 3 - Composition/Information on Ingredients

Components						
Chemical Name	CAS	%(wt)	UN;EI NECS	LD50/LC50	Classifications According to Regulation/Directive	
Dacite Porphyry (composition varies naturally, typically contains feldspars, amphibole, magnetite, ilmenite, biotite and epidote)	Mixture	75 - 85		Ingestion: LD50 estimated to be 2,000 - 5,000 mg/kg		
Quartz (a component of Dacite Porphyry)	14808-60-7	25 - 35		Ingestion: LD50 estimated to be > 5,000 mg/kg		
Ceramic Coating	Trade Secret*	2 - 4		Ingestion: LD50 estimated to be 2,000 - 5,000 mg/kg		
Titanium Dioxide	13463-67-7	0.1 - 1.0		Inhalation- Dust/Mist(4 hours): LC50 > 6.82 mg/l. LD50 > 10,000 mg/kg		
Inorganic Pigments	Mixture	0 - 0.1				
Oil	64741-96-4	< 0.2		Ingestion: LD50 > 5,000 mg/kg		

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

See Section 11 for Toxicological Information.

Section 4 - First Aid Measures

- Inhalation** - Remove person to fresh air. If you feel unwell, get medical attention.
- Skin** - Wash with soap and water. If signs/symptoms develop, get medical attention.
- Eye** - Flush with large amounts of water. Remove contact lenses if easy to do. Continue rinsing. If signs/symptoms persist, get medical attention.
- Ingestion** - Rinse mouth. If you feel unwell, get medical attention.
- Other Information** - See Section 11.1. Information on toxicological effects.

See Section 2 for Potential Health Effects.

Section 5 - Fire Fighting Measures

- Extinguishing Media** - Non-combustible. Use a fire fighting agent suitable for surrounding fire.
- Unsuitable Extinguishing Media** - No data available
- Firefighting Procedures** - Use standard firefighting procedures and consider the hazards of other involved materials.
- Unusual Fire and Explosion Hazards** - No unusual fire or explosion hazards noted.
- Hazardous Combustion Products** - No data available
- Protection of Firefighters** - No special protective actions for fire-fighters are anticipated.

Section 6 - Accidental Release Measures

- Personal Precautions** - Ventilate the area with fresh air.
- Emergency Procedures** - Keep unnecessary personnel away.
- Environmental Precautions** - Avoid release to the environment. Avoid discharge into drains, water courses or onto the ground.
- Containment/Clean-up Measures** - 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.
- Prohibited Materials** - None listed

Section 7 - Handling and Storage

- Handling** - Do not breathe dust/fume/gas/mist/vapors/spray. Granules are not respirable. Dust generated during handling may contain respirable material. 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.
- Storage** - Store in original tightly closed container. No special storage requirements
- Incompatible Materials or Ignition Sources** - No Listing

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment Pictograms



- Respiratory** - 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 face piece or full face piece air-purifying respirator suitable for particulates
- Eye/Face** - 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

- Hands** - Wear appropriate chemical resistant gloves.
- Skin/Body** - Wear suitable protective clothing.
- General Industrial 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 to remove contaminants.
- Engineering Measures/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.
- Exposure Limits/Guidelines** - Refer to listed exposure limits in state information of this section.

Exposure Limits/Guidelines					
	Result	ACGIH	NIOSH	OSHA	Other
Titanium Dioxide	TWAs	TWA:10 mg/m3		TWA(as total dust):15 mg/m3	A4
Quartz (a component of Dacite Porphyry)	TWAs	TWA(respirable fraction):0.025 mg/m3		TWA concentration(as total dust):0.3 mg/m3;TWA concentration(respirable):0.1 mg/m3(2.4 millions of particles/cu. ft.)	A2
Petroleum Distillates	TWAs			TWA:2000 mg/m3(500 ppm)	
Paraffin oil	TWAs			TWA(as mist):5 mg/m3	

Section 9 - Physical and Chemical Properties

- Physical Form** - Solid Granules
- Appearance/Description** - White

Color: White		Odor: Slight Oily Odor	
Taste: No data available.		Odor Threshold: NDA	
Boiling Point:	N/A	Vapor Pressure:	N/A
Melting Point:	N/A	Vapor Density:	N/A
Specific Gravity/Relative Density:	2.55 - 2.70	Evaporation Rate:	N/A
Auto-Ignition Temperature	> N/A	VOC (Wt.):	N/A
Bulk Density:	NDA	VOC (Vol.):	N/A
Solvent Solubility:	NDA	Flash Point:	N/A
Viscosity:	NDA	Flash Point Test Type:	N/A

Section 10 - Stability and Reactivity

- Stability** - Material is stable under normal conditions.
- Hazardous Polymerization** - Hazardous polymerization not indicated.
- Conditions to Avoid** - None Known.
- Incompatible Materials** - None Known
- Hazardous Decomposition Products** - No hazardous decomposition products are known.

Section 11 - Toxicological Information

Acute Toxicity			
Name	Route	Species	Value
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
Ceramic Coating	Ingestion		LD50 estimated to be 2,000 - 5,000 mg/kg

Titanium Dioxide	Inhalation-Dust/Mist (4 hours)	Rat	LC50 > 6.82 mg/l
Titanium Dioxide	Ingestion	Rat	LD50 > 10,000 mg/kg
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	Dermal	Mouse	Some positive data exist, but the data are not sufficient for classification

- IARC Monographs. Overall Evaluation of Carcinogenicity** - 2B Possibly carcinogenic to humans.
1 classifiable as to carcinogenicity to humans.
- Reproductive toxicity** - Data not sufficient for classification
- Specific target organ toxicity - single exposure** - No Data Available
- Specific target organ toxicity - repeated exposure** - Inhalation – Silicosis. Titanium Dioxide – Pulmonary Fibrosis, Respiratory System
- Aspiration hazard** - Oil – Aspiration Hazard
- Chronic effects** - Prolonged inhalation may be harmful.

Section 12 - Ecological Information

- Ecological Fate** - No Data Available
- Persistence/Degradability** - No data is available on the degradability of this product.
- Bioaccumulation Potential** - No data available.
- Mobility in Soil** - No data available.
- Other adverse effects** - No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13 - Disposal Considerations

- Product** - Dispose of contents/ container in accordance with the local/regional/national/international regulations. Not Regulated by RCRA in original state.
- Packaging** - Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

Section 14 - Transportation Information

DOT - United States - Department of Transportation:
Shipping Name: Not Regulated as Dangerous Goods

IATA – International Air Transport Association:
Shipping Name: Not Regulated as Dangerous Goods

IMO/IMDG –International Maritime Transport:
Shipping Name: Not Regulated as Dangerous Goods

Section 15 - Regulatory Information

TSCA	-	The components of this product are in compliance with the chemical notification requirements of TSCA.
SARA 302 Extremely hazardous substance	-	Not listed.
SARA 311/312 Hazardous	-	Immediate and Delayed Hazard
SARA 313 (TRI reporting)	-	No Data Available
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	-	No Data Available
US. California Proposition 65		Silica and Titanium Dioxide is listed due to its respirable nature in powder form. As supplied and applied the titanium dioxide is bound within the product matrix and is not expected to be in a respirable form. WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16 - Other Information

Last Revision Date	-	3/31/2016
Prepared By	-	GG Inc.
Disclaimer/Statement of Liability	-	This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to verify the suitability and completeness of such information for particular use. APOC does not accept liability for any loss or damage that may occur from the use of this information.