SAFETY DATA SHEET



1. Identification			
Product identifier	STREETBOND COLORANT SHAMROCK GREEN		
Other means of identification			
Product Code			
Recommended use	Colorant.		
Manufacturer/Importer/Supplier	/Distributor information		
Manufacturer			
Company name	GAF 1 Campus Drive Parsippany, NJ 07054 USA		
Telephone	1-800–766–3411		
Emergency phone number	CHEMTREC [DAY OR NIGHT] 1-800-424	4-9300	
	Within USA and CANADA1-800-42Outside USA and Canada:1 703-74		
Physical hazards			
Health hazards	Not classified.		
	Carcinogenicity	Category 2	
Environmental hazards	Specific target organ toxicity, repeated exposure	Category 1	
	Hazardous to the aquatic environment, ac hazard	cute Category 2	
OSHA defined hazards	Hazardous to the aquatic environment, long-term hazard	Category 3	
Label elements	Not classified.		
Signal word	Danger		
Hazard statement	Suspected of causing cancer. Causes damage to organs through prolonged or repeated exposure. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.		
Precautionary statement			
Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.		
Response	If exposed or concerned: Get medical adv	vice/attention.	
Storage	Store locked up.		
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.		
Hazard(s) not otherwise classified (HNOC)	None known.		

1. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Ethylene Glycol		107-21-1	5 to <10
BARIUM SULFATE		7727-43-7	1 to <5
Diethylene Glycol		111-46-6	1 to <5
Silicate		14807-96-6	1 to <5
Titanium Dioxide		13463-67-7	1 to <5
TRIBUTYL PHOSPHATE		126-73-8	1 to <5
Other components below reportable leve	els		80 to <90

Other components below reportable levels

2. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.	
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.	
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.	
Ingestion	Rinse mouth. Get medical attention if symptoms occur.	
Most important symptoms/effects, acute and delayed	Prolonged exposure may cause chronic effects.	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.	
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.	
3. Fire-fighting measures		
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.	
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.	

Use standard firefighting procedures and consider the hazards of other involved materials. General fire hazards No unusual fire or explosion hazards noted.

4. Accidental release measures

Specific methods

Personal precautions, Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of protective equipment and low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate emergency procedures protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.
5. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist or vapor. Avoid prolonged exposure. When using, do not eat, drink or smoke. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

6. Exposure controls/personal protection

Occupational exposure limits

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

Components	Туре	Value	Form
BARIUM SULFATE (CAS 7727-43-7)	PEL	5 mg/m3	Respirable fraction.
,		15 mg/m3	Total dust.
Titanium Dioxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
TRIBUTYL PHOSPHATE (CAS 126-73-8)	PEL	5 mg/m3	
US. OSHA Table Z-3 (29 CFR 1910	.1000)		
Components	Туре	Value	Form
Silicate (CAS 14807-96-6)	TWA	0.3 mg/m3	Total dust.
		0.1 mg/m3	Respirable.
		20 mppcf	
		2.4 mppcf	Respirable.
US. ACGIH Threshold Limit Value	S		
Components	Туре	Value	Form
BARIUM SULFATE (CAS 7727-43-7)	TWA	5 mg/m3	Inhalable fraction.
Ethylene Glycol (CAS 107-21-1)	Ceiling	100 mg/m3	Aerosol.
Silicate (CAS 14807-96-6)	TWA	2 mg/m3	Respirable fraction.
Titanium Dioxide (CAS 13463-67-7)	TWA	10 mg/m3	
TRIBUTYL PHOSPHATE (CAS 126-73-8)	TWA	5 mg/m3	Inhalable fraction and vapor.
US. NIOSH: Pocket Guide to Chen	nical Hazards		
Components	Туре	Value	Form
BARIUM SULFATE (CAS 7727-43-7)	TWA	5 mg/m3	Respirable.
,		10 mg/m3	Total
Silicate (CAS 14807-96-6)	TWA	2 mg/m3	Respirable.
TRIBUTYL PHOSPHATE (CAS 126-73-8)	TWA	2.5 mg/m3	
		0.2 ppm	

US. Workplace Environme Components	ental Exposure Level (WEEL) Guides Type	Value
Diethylene Glycol (CAS 111-46-6)	TWA	10 mg/m3
Biological limit values	No biological exposure limits noted f	or the ingredient(s).
Appropriate engineering controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.	
Individual protection measure	s, such as personal protective equipr	nent
Eye/face protection	If contact is likely, safety glasses with side shields are recommended.	
Skin protection		
Hand protection	For prolonged or repeated skin contact use suitable protective gloves.	
Other	Wear suitable protective clothing.	
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.	
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.	
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 to remove contaminants.	

7. Physical and chemical properties

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Appearance	
Physical state	Liquid.
Form	Liquid.
Color	Green.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or expl	osive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	11.17 lbs/gal

Flammability class	Not available.
Percent volatile	47.98 %
Specific gravity	1.34
VOC	489.326883 g/l Regulatory estimated 3.823036 lbs/gal Material estimated 4.083509 lbs/gal Regulatory estimated 458.114404 g/l Material estimated

8. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

9. Toxicological information

Information on likely routes of exposure

Inhalation	May cause damage to organs through prolonged or repeated exposure by inhalation. Prolonged inhalation may be harmful.
Skin contact	No adverse effects due to skin contact are expected.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Diethylene Glycol (CAS 11	1-46-6)	
Acute		
Dermal		
LD50	Rabbit	11890 mg/kg
Oral		
LD50	Guinea pig	8700 mg/kg
	Mouse	13.3 g/kg
	Rabbit	26.9 g/kg
	Rat	12565 mg/kg
Ethylene Glycol (CAS 107-	-21-1)	
Acute		
Dermal		
LD50	Rabbit	9530 mg/kg
Oral		
LD50	Guinea pig	8.2 g/kg
	Mouse	14.6 g/kg
	Rat	5.89 g/kg
TRIBUTYL PHOSPHATE (CAS 126-73-8)		
Acute		
Dermal		
LD50	Rabbit	> 3100 mg/kg

Components	Species	Test Results	
Inhalation			
LC50	Rat	123 mg/l, 6 Hours	
Oral			
LD50	Hen	1863 mg/kg	
	Mouse	1189 mg/kg	
	Rat	3 g/kg	
* Estimates for product may I	be based on additional component data not sho	own.	
Skin corrosion/irritation	Prolonged skin contact may cause temporal	ry irritation.	
Serious eye damage/eye irritation	Direct contact with eyes may cause tempora	ary irritation.	
Respiratory or skin sensitization	1		
Respiratory sensitization	Not available.		
Skin sensitization	This product is not expected to cause skin sensitization.		
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	Suspected of causing cancer.		
IARC Monographs. Overall	Evaluation of Carcinogenicity		
Titanium Dioxide (CAS 1 OSHA Specifically Regulate Not listed.	3463-67-7) 2B Possibly ed Substances (29 CFR 1910.1001-1050)	carcinogenic to humans.	
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.		
Specific target organ toxicity - single exposure	Not classified.		
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.		
Aspiration hazard	Not available.		
Chronic effects	Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure.		

10. Ecological information

Ecotoxicity

Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Components		Species	Test Results	
BARIUM SULFATE (C	CAS 7727-43-7)			
Aquatic				
Crustacea	EC50	Tubificid worm (Tubifex tubifex)	28.61 - 38.03 mg/l, 48 hours	
Diethylene Glycol (CA	S 111-46-6)			
Aquatic				
Fish	LC50	Western mosquitofish (Gambusia affinis)	> 32000 mg/l, 96 hours	
Ethylene Glycol (CAS	107-21-1)			
Aquatic				
Fish	LC50	Fathead minnow (Pimephales promelas)	8050 mg/l, 96 hours	
Titanium Dioxide (CAS	S 13463-67-7)			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hours	
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/l, 96 hours	
TRIBUTYL PHOSPHA	ATE (CAS 126-73-8)			
Aquatic				
Fish	LC50	Fathead minnow (Pimephales promelas)	1 - 10 mg/l, 96 hours	

* Estimates for product may be based on additional component data not shown. **Persistence and degradability** No data is available on the degradability of this product.

Bioaccumulative potential

Partition coefficient n-octan	ol / water (log Kow)
Ethylene Glycol	-1.36
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.

11. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable 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. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated 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.

12. Transport information

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established. Annex II of MARPOL 73/78 and the IBC Code

13. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.			
TSCA Section 12(b) Export	Notification (40 CFR 707, Su	ıbpt. D)		
Not regulated.				
CERCLA Hazardous Substa	ance List (40 CFR 302.4)			
BARIUM SULFATE (CAS		Listed.		
	Ethylene Glycol (CAS 107-21-1)			
SARA 304 Emergency relea	se notification			
Not regulated.				
OSHA Specifically Regulate	ed Substances (29 CFR 1910	.1001-1050)		
Not listed.				
Superfund Amendments and Re	eauthorization Act of 1986 (SARA)		
Hazard categories	Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No			
SARA 302 Extremely hazar	dous substance			
Not listed.				
SARA 311/312 Hazardous chemical	No			
SARA 313 (TRI reporting)				
Chemical name		CAS number	% by wt.	
Ethylene Glycol		107-21-1	5 to <10	
Material name: STREETBOND COLO	DRANT SHAMROCK GREEN			SE

Material name: STREETBOND COLORANT SHAMROCK GREEN Version #: 07 Revision date: 12-10-2015 SDS 3232

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Ethylene Glycol (CAS 107-21-1)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act Not regulated. (SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100) Not listed.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Ethylene Glycol (CAS 107-21-1) Silicate (CAS 14807-96-6) Titanium Dioxide (CAS 13463-67-7)

US. Massachusetts RTK - Substance List

BARIUM SULFATE (CAS 7727-43-7) Ethylene Glycol (CAS 107-21-1) Silicate (CAS 14807-96-6) Titanium Dioxide (CAS 13463-67-7) TRIBUTYL PHOSPHATE (CAS 126-73-8)

US. New Jersey Worker and Community Right-to-Know Act

BARIUM SULFATE (CAS 7727-43-7) Ethylene Glycol (CAS 107-21-1) Silicate (CAS 14807-96-6) Titanium Dioxide (CAS 13463-67-7) TRIBUTYL PHOSPHATE (CAS 126-73-8)

US. Pennsylvania Worker and Community Right-to-Know Law

BARIUM SULFATE (CAS 7727-43-7) Diethylene Glycol (CAS 111-46-6) Ethylene Glycol (CAS 107-21-1) Silicate (CAS 14807-96-6) Titanium Dioxide (CAS 13463-67-7) TRIBUTYL PHOSPHATE (CAS 126-73-8)

US. Rhode Island RTK

Ethylene Glycol (CAS 107-21-1)

US. California Proposition 65

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

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Titanium Dioxide (CAS 13463-67-7)

Listed: September 2, 2011

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply 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).

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

Issue date	12-04-2014
Revision date	12-10-2015
Version #	07
HMIS® ratings	Health: 1* Flammability: 0 Physical hazard: 0
NFPA ratings	Health: 0 Flammability: 0 Instability: 0
Disclaimer	This information relates to the specific material designated and may not be valid for such material used on 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, expressed or implied, is made as to its accuracy, reliability, or completeness. GAF cannot anticipate all conditions under which this information and product, or the products of other manufacturers in combination with this product, may be used. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his particular use. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing herein shall be construed as a recommendation for uses which infringe valid patents or as extending a license of valid patents.
Revision Information	Product and Company Identification: Converted to GAF SDS