



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name: Sapphire Scientific Penetrating Tile and Grout Sealer
Formula: F1211 101-92-C
Product use: Soil and stain repellent
Supplier: Sapphire Scientific
2604 Liberator
Prescott, AZ 86301 US
Phone: 1-800 932-3030
Emergency: 1-800 535-5053

2. Hazards Identification

Emergency Overview

The hazards of this product are associated mainly with its processing.
Inhalation of decomposition products in high concentration may cause shortness of breath (lung edema).
Inhalation of aerosol or fine spray mist may cause serious respiratory problems.

Potential Health Effects

Eyes: May cause eye irritation. May cause tearing, Redness, Discomfort.
Inhalation: Inhalation of decomposition products in high concentration may cause shortness of breath (lung edema).
Inhalation of aerosol or fine spray mist may cause serious respiratory problems.
Causes respiratory tract irritation. May cause nose, throat, larynx and lung irritation, and effects may be irreversible. May cause: Cough, sneezing, runny nose, sore throat, or shortness of breath.
Repeated exposure: Danger of serious damage to health by prolonged exposure. Adverse effects from repeated ingestion may include: Liver effects, Thyroid effects, Kidney effects, Information given is based on data obtained from similar substances.
Adverse effects from repeated inhalation may include: Respiratory tract irritation, lung effects, Information given is based on data obtained from similar substances.
Adverse effects from repeated dermal exposure may include: Liver effects, from altered blood chemistry, Information given is based on data obtained from similar substances.
Target Organ: Respiratory Tract, Liver
Carcinogenicity: None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

3. Composition / Information on Ingredients

Material	CAS Number	%	
Partially Fluorinated Alcohol, Reaction Products with Phosphorus Oxide (P2O5), Ammonium Salts		NA	<3.0

4. First Aid Measures

Skin contact: Wash off immediately with soap and plenty of water. Wash contaminated clothing before re-use.
Eye contact: Rinse immediately with plenty of water for at least 15 minutes. Seek medical advice.
Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Symptoms may be delayed. Call a physician immediately.
Ingestion: Call a physician or poison control center immediately. If swallowed, DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

General advice: When symptoms persist or in all cases of doubt seek medical advice.

5. Fire Fighting Measures

Flammable Properties

Flash point: does not flash
Thermal decomposition: > 200 °C (> 392 °F)
To avoid thermal decomposition, do not overheat.
Thermal decomposition can lead to release of irritating gases and vapors.

Fire and Explosion Hazard: Hazardous decomposition products formed under fire conditions.

Hazardous combustion products

Hydrofluoric acid, Carbon monoxide, Carbon dioxide

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Firefighting Instructions: Wear self contained breathing apparatus for firefighting if necessary. Evacuate personnel to safe areas. Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses.

6. Accidental Release Measures

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with cleanup. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Evacuate personnel to safe areas. Use personal protective equipment. Ventilate the area.
Spill Cleanup : Dam up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Pick up and transfer to properly labeled containers.

Accidental Release Measures : Do not discharge to streams, ponds, lakes or sewers. Avoid subsoil penetration.

7. Handling and Storage

Handling (Personnel): Do not use this product in consumer spray applications.
Do not generate respirable particles unless suitable ventilation or respirators are used.
Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.
Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before re-use.

Handling (Physical Aspects): To avoid thermal decomposition, do not overheat. Thermal decomposition can lead to release of irritating gases and vapors.

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in accordance with National Fire Protection Association recommendations.
Perishable if frozen. Protect from freezing.

8. Exposure Controls/ Personal Protection

Engineering controls: Do not generate respirable particles unless suitable ventilation or respirators are used. In spray applications, use airless type pressure spray equipment with spray tip pressure less than 4.1 bar (60 psi), and exhaust ducts, drip pans, or other design features to prevent worker exposure to mists and overspray.
Use only in area provided with appropriate exhaust ventilation. Use appropriate workplace ventilation to remove fumes that may be released on heating.

Personal protective equipment

Respiratory protection: In case of mist, spray or aerosol exposure, wear suitable personal respiratory protection and protective suit.

Hand protection: Additional protection: Impervious gloves

Eye protection: Wear safety glasses or coverall chemical splash goggles.

Skin and body protection: Lightweight protective clothing

Exposure Guidelines

Exposure Limit Values

Partially fluorinated alcohol, reaction products with phosphorous oxide (P₂O₅), ammonium salts
(AEL *) 0.01 mg/m³ 8 & 12 hr. TWA Respirable fraction.

* AEL Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

9. Physical and Chemical Properties

Boiling Point :	100 C (212 F)	Odor:	None.
% Volatiles :	>96%	Form:	Liquid.
Solubility in Water :	Soluble	Color:	light amber.
pH :	7-9	Density :	8.4 lb/gal

10. Stability and Reactivity

Stability:	Stable under normal conditions.
Conditions to avoid:	To avoid thermal decomposition, do not overheat.
Hazardous decomposition products	: Incompletely burned carbon products, Hydrofluoric acid, Carbon dioxide, Carbon monoxide Other hazardous decomposition products may be formed.

11. Toxicological Information

Inhalation 4 h ALC -:	0.047 mg/l , rat
Approximate Lethal Concentration	Irritating to respiratory system
Inhalation 4 h Acute toxicity estimate	0.005 mg/l , rat Irritating to respiratory system.
Dermal LD50:	> 5,000 mg/kg , rat
Oral LD50:	> 5,000 mg/kg , rat
Skin irritation:	No skin irritation, rabbit
Eye irritation:	slight irritation, rabbit
Sensitization:	Did not cause sensitization on laboratory animals: mouse
Repeated dose toxicity:	Oral - gavage rat No toxicologically significant effects were found. Target Organs: Liver Liver effects, Thyroid effects, Kidney effects, altered hematology, Weight loss, reduced body weight gain, Information given is based on data obtained from similar product. Inhalation rat Respiratory tract irritation, lung effects, Information given is based on data obtained from similar product. Dermal rat Liver effects, altered blood chemistry, Information given are based on data obtained from similar product.
Mutagenicity:	Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
Reproductive toxicity:	Animal testing showed effects on reproduction at levels equal to or above those causing parental toxicity. Information given is based on data obtained from similar product.
Teratogenicity:	Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity. Information given is based on data obtained from similar product.
Partially fluorinated alcohol, reaction products with phosphorous oxide (P2O5), ammonium salts	
Further information:	Information given is based on data obtained from similar substances.

12. Ecological Information

Aquatic Toxicity	
96 h LC50:	Pimephales promelas (fathead minnow) > 120 mg/l
96 h LC50	: Rare Gudgeon (Gobiocypris Rarus) > 150 mg/l
72 h ErC50:	Pseudokirchneriella subcapitata (green algae) > 120 mg/l
48 h EC50:	Daphnia magna (Water flea) 16.2 mg/l
21 d:	NOEC Daphnia magna (Water flea) 0.409 mg/l
21 d:	NOEC Daphnia magna (Water flea) 0.0467 mg/l
Environmental Fate	
Biodegradability:	This product was tested following the OECD 302C (Inherent Biodegradability) test guideline. The product was not inherently biodegradable according to the test guideline endpoint criteria.

13. Disposal Considerations

Waste Disposal: In accordance with local and national regulations

14. Transportation Information

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory Information

TSCA: Listed

This material contains one or more substances which are subject to a TSCA Section 5 Consent Order or Significant New Use Rule (SNUR). This material contains one or more substances which requires export notification under TSCA Section 12(b) and 40 CFR Part 707 Subpart D:

Partially fluorinated alcohol, reaction products with phosphorous oxide (P2O5), ammonium salts PMN Number: P-09-0245

This material shall not be distributed to consumers for use in spray applications.

SARA 313 Regulated Chemical(s)

: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Title III hazard classification : Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire: No
Reactivity/Physical hazard: No
Pressure: No

California Prop. 65: Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

16. Other Information

OTHER INFORMATION

NFPA Rating		NPCA-HMIS Rating	
Health :	2	Health :	2
Flammability :	0	Flammability :	0
Reactivity :	0	Reactivity :	0

Disclaimer: Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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