MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Sapphire Scientific Area Rug Cleaner and Deodorizer**
CAS #	Mixture
Product use	Carpet cleaner
Manufacturer	Sapphire Scientific 2604 Liberator Prescott, AZ 86301 US Phone: 1-800-932-3030 Emergency: 1-800-535-5053

2. Hazards Identification

Emergency overview	WARNING Combustible liquid. Keep away from heat and flame. EYE AND SKIN IRRITANT.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Skin absorption, Inhalation, Ingestion.
Eyes	May cause irritation.
Skin	Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Eyes. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	Components of this product have been identified as having potential environmental concerns.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Sodium xylene sulphonate	1300-72-7	5 - 10
Benzenesulfonic acid, C10-16-alkyl derivatives	68584-22-5	3 - 7
O-Benzyl-p-chlorophenol	120-32-1	3 - 7
Tetrapotassium pyrophosphate	7320-34-5	3 - 7
Hexylene glycol	107-41-5	1 - 5
Isopropanol	67-63-0	1 - 5
O-Phenylphenol	90-43-7	1 - 5
Propylene glycol monomethyl ether	107-98-2	1 - 5
P-tert-Pentylphenol	80-46-6	0.5 - 1.5
Sodium sulfite	7757-83-7	0.1 - 1

4. First Aid Measures

First aid procedures	
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.

Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.
General advice	Keep away from sources of ignition. No smoking. 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. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Combustible by WHMIS/OSHA criteria.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Carbon dioxide. Foam. Fog.
Unsuitable extinguishing media	Not available
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of sulphur. Oxides of phosphorus.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Environmental precautions	Do not contaminate water.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
Storage	Keep away from heat and sources of ignition. Keep out of reach of children. Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Benzenesulfonic acid, C10-16-alkyl derivatives	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Hexylene glycol	**ACGIH-TLV** Ceiling: 25 ppm **OSHA-PEL** Not established
Isopropanol	**ACGIH-TLV** TWA: 200 ppm STEL: 400 ppm **OSHA-PEL** TWA: 400 ppm
O-Benzyl-p-chlorophenol	**ACGIH-TLV** Not established **OSHA-PEL** Not established
O-Phenylphenol	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Propylene glycol monomethyl ether	**ACGIH-TLV** TWA: 100 ppm STEL: 150 ppm **OSHA-PEL** Not established
P-tert-Pentylphenol	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Sodium sulfite	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Sodium xylene sulphonate	**ACGIH-TLV** Not established **OSHA-PEL** Not established
Tetrapotassium pyrophosphate	**ACGIH-TLV** Not established **OSHA-PEL** Not established

Engineering controls Not normally required if good ventilation is maintained.

Personal protective equipment

Eye / face protection	Wear safety glasses with side shields.
Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Transparent to translucent
Color	Orange
Form	Liquid
Odor	Citrus
Odor threshold	Not available
Physical state	Liquid
pH	10.9
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	Not available
Flash point	127 °F (52.77 °C)
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Relative density	9.82 lbs/gallon
Octanol/water coefficient	Not available
Percent volatile	Not available

10. Stability and Reactivity

Reactivity	This product may react with strong acids.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid high temperatures. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizers.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of sulphur. Oxides of phosphorus.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Benzenesulfonic acid, C10-16-alkyl derivatives	Not available
Hexylene glycol	> 77.5 mg/m3 rat
Isopropanol	16970 mg/l/4h rat
O-Benzyl-p-chlorophenol	Not available
O-Phenylphenol	> 36 mg/m3 rat
Propylene glycol monomethyl ether	Not available
P-tert-Pentylphenol	Not available
Sodium sulfite	5.5 mg/l/4h rat
Sodium xylene sulphonate	Not available
Tetrapotassium pyrophosphate	Not available

Component analysis - Oral LD50

Ingredient(s)	LD50
Benzenesulfonic acid, C10-16-alkyl derivatives	530 mg/kg rat
Hexylene glycol	3700 mg/kg rat; 2800 mg/kg guinea pig; 3200 mg/kg rabbit; 3097 mg/kg mouse
Isopropanol	4396 mg/kg rat
O-Benzyl-p-chlorophenol	1700 mg/kg rat; 65 mg/kg mouse
O-Phenylphenol	2700 mg/kg rat
Propylene glycol monomethyl ether	3739 mg/kg rat; 11700 mg/kg mouse
P-tert-Pentylphenol	1830 mg/kg rat
Sodium sulfite	820 mg/kg mouse; 820 mg/kg rat
Sodium xylene sulphonate	7200 mg/kg rat
Tetrapotassium pyrophosphate	4000 mg/kg rat

Effects of acute exposure

Eye May cause irritation.

Skin Contact with skin can cause irritation and allergic reaction (sensitization) in some individuals.

Inhalation May cause respiratory tract irritation.

Ingestion May cause stomach distress, nausea or vomiting.

Sensitization Repeated contact may cause allergic reactions in very susceptible persons.

Chronic effects Non-hazardous by WHMIS/OSHA criteria.

Carcinogenicity See below.

ACGIH - Threshold Limit Values - Carcinogens

Isopropanol	67-63-0	A4 - Not Classifiable as a Human Carcinogen

IARC - Group 3 (Not Classifiable)

Isopropanol	67-63-0	Monograph 71 [1999]; Supplement 7 [1987]; Monograph 15 [1977]
O-Phenylphenol	90-43-7	Monograph 73 [1999]
Sodium sulfite	7757-83-7	Monograph 54 [1992] (listed under Sulfur dioxide and some sulfites bisulfites and metabisulfites)

U.S. - California - Proposition 65 - Carcinogens List

O-Phenylphenol	90-43-7	carcinogen, initial date 8/4/00

Mutagenicity Contains a potential mutagen.

Reproductive effects Non-hazardous by WHMIS/OSHA criteria.

Teratogenicity Non-hazardous by WHMIS/OSHA criteria.

Name of Toxicologically Synergistic Products Not available

12. Ecological Information

Ecotoxicity Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Algae - Acute Toxicity Data

Isopropanol	67-63-0	96 Hr EC50 Desmodesmus subspicatus: >1000 mg/L; 72 Hr EC50 Desmodesmus subspicatus: >1000 mg/L
O-Phenylphenol	90-43-7	72 Hr EC50 Desmodesmus subspicatus: 0.85 mg/L

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Benzenesulfonic acid, C10-16-alkyl derivatives	68584-22-5	96 Hr LC50 Oncorhynchus mykiss: 3 mg/L [static]
Hexylene glycol	107-41-5	96 Hr LC50 Pimephales promelas: 10500-11000 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 10000 mg/L [static]; 96 Hr LC50 Pimephales promelas: 8690 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 10700 mg/L [static]
Isopropanol	67-63-0	96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 11130 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: >1400000 µg/L
O-Phenylphenol	90-43-7	96 Hr LC50 Pimephales promelas: 3.4 mg/L [flow-through]; 96 Hr LC50 Lepomis macrochirus: 2.74 mg/L; 96 Hr LC50 Oncorhynchus mykiss: 2.75 mg/L; 96 Hr LC50 Poecilia reticulata: 5.8 mg/L [static]
Propylene glycol monomethyl ether	107-98-2	96 Hr LC50 Pimephales promelas: 20.8 g/L [static]; 96 Hr LC50 Leuciscus idus: 4600-10000 mg/L [static]
P-tert-Pentylphenol	80-46-6	96 Hr LC50 Pimephales promelas: 1.87-3.34 mg/L [flow-through]; 96 Hr LC50 Cyprinus carpio: 1.6 mg/L
Sodium sulfite	7757-83-7	96 Hr LC50 Leuciscus idus: 220 - 460 mg/L [static]
Tetrapotassium pyrophosphate	7320-34-5	96 Hr LC50 Oncorhynchus mykiss: >100 mg/L

Ecotoxicity - Water Flea - Acute Toxicity Data

Benzenesulfonic acid, C10-16-alkyl derivatives	68584-22-5	48 Hr EC50 Daphnia magna: 2.9 mg/L
Hexylene glycol	107-41-5	48 Hr EC50 Daphnia magna: 2700 - 3700 mg/L
Isopropanol	67-63-0	48 Hr EC50 Daphnia magna: 13299 mg/L
O-Phenylphenol	90-43-7	48 Hr EC50 Daphnia magna: 1 - 2.5 mg/L [Static] (6-24 hours old)
Propylene glycol monomethyl ether	107-98-2	48 Hr EC50 Daphnia magna: 23300 mg/L
Sodium sulfite	7757-83-7	24 Hr LC50 Psammechinus miliaris: 330 mg/L
Tetrapotassium pyrophosphate	7320-34-5	48 Hr EC50 water flea: >100 mg/L

Persistence / degradability Not available

Bioaccumulation / accumulation Not available

Mobility in environmental media Not available

Environmental effects Not available

Aquatic toxicity Not available

Partition coefficient Not available

Chemical fate information Not available

Other adverse effects Not available

13. Disposal Considerations

Disposal instructions Review federal, state/provincial, and local government requirements prior to disposal.

Waste from residues / unused products Not available

Contaminated packaging Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Flammable liquids, n.o.s. (ISOPROPANOL)
Hazard class	3
UN number	UN1993
Packing group	III
Additional information:	
Special provisions	B1, B52, IB3, T4, TP1, TP29
Packaging exceptions	150
ERG number	128

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	FLAMMABLE LIQUID, N.O.S. (ISOPROPANOL)
Hazard class	3
UN number	UN1993
Packing group	III
Additional information:	
Special provisions	16

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Hexylene glycol	107-41-5	1 %
Isopropanol	67-63-0	1 %
O-Phenylphenol	90-43-7	1 %
Propylene glycol monomethyl ether	107-98-2	1 %
P-tert-Pentylphenol	80-46-6	1 %

WHMIS status Controlled

WHMIS classification Class B - Division 3 - Combustible Liquid, Class D - Division 2A, 2B

WHMIS labeling

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

Isopropanol	67-63-0	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
O-Benzyl-p-chlorophenol	120-32-1	0.1 % De minimis concentration (Chemical Category N084)
O-Phenylphenol	90-43-7	1.0 % de minimis concentration

U.S. - CWA (Clean Water Act) - Toxic Pollutants

O-Benzyl-p-chlorophenol	120-32-1	Present

CERCLA (Superfund) reportable quantity

Sulphuric acid: 1000.0000
Sodium hydroxide: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

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

Section 302 extremely hazardous substance

No

Section 311 hazardous chemical

Yes

Clean Air Act (CAA)

Not available

Clean Water Act (CWA)

Not available

State regulations

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

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Hexylene glycol	107-41-5	Present
Isopropanol	67-63-0	Present
O-Benzyl-p-chlorophenol	120-32-1	Present
Propylene glycol monomethyl ether	107-98-2	Present

U.S. - California - Proposition 65 - Carcinogens List

O-Phenylphenol	90-43-7	carcinogen, initial date 8/4/00

U.S. - Illinois - Toxic Air Contaminant Carcinogens

O-Benzyl-p-chlorophenol	120-32-1	IARC Group 2B Carcinogen

U.S. - Massachusetts - Right To Know List

Hexylene glycol	107-41-5	Present
Isopropanol	67-63-0	Present
O-Phenylphenol	90-43-7	Present
Propylene glycol monomethyl ether	107-98-2	Present
P-tert-Pentylphenol	80-46-6	Present

U.S. - Minnesota - Hazardous Substance List

Hexylene glycol	107-41-5	Present
Isopropanol	67-63-0	Present
Propylene glycol monomethyl ether	107-98-2	Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Hexylene glycol	107-41-5	sn 1003
Isopropanol	67-63-0	sn 1076
O-Phenylphenol	90-43-7	sn 1439
Propylene glycol monomethyl ether	107-98-2	sn 1613

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

O-Benzyl-p-chlorophenol	120-32-1	Present

U.S. - Pennsylvania - RTK (Right to Know) List

Hexylene glycol	107-41-5	Present
Isopropanol	67-63-0	Environmental hazard
O-Benzyl-p-chlorophenol	120-32-1	Environmental hazard; Special hazardous substance
O-Phenylphenol	90-43-7	Environmental hazard
Propylene glycol monomethyl ether	107-98-2	Present
P-tert-Pentylphenol	80-46-6	Present

U.S. - Rhode Island - Hazardous Substance List

Hexylene glycol	107-41-5	Toxic
Isopropanol	67-63-0	Toxic; Flammable
O-Benzyl-p-chlorophenol	120-32-1	Carcinogen
Propylene glycol monomethyl ether	107-98-2	Toxic

Inventory name

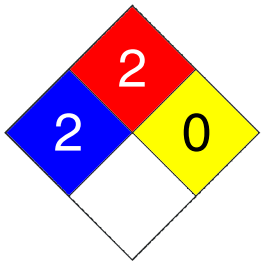
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	*	2
Flammability		2
Physical Hazard		0
Personal Protection		B



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Other information	For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document. This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.