

MATERIAL SAFETY DATA SHEET: SIMPLE GREEN d®

I. PRODUCT & COMPANY INFORMATION

PRODUCT NAME: SIMPLE GREEN d® - CLEANER / DISINFECTANT / DEODORIZER

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COMPANY NAME: SUNSHINE MAKERS, INC.
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Version No. 2006
Issue Date: January 2003

For 24-hour emergency, call Chem-Tel, Inc.: 800-255-3924

USE OF PRODUCT: A concentrated hard surface cleaner and disinfectant for institutional degreasing, disinfecting, and deodorizing; effective against Human Immunodeficiency Virus (HIV-1), and gram positive and gram negative bacteria, including *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Salmonella chloreraesuis*, *Streptococcus pyogenes*, and *Escherichia coli*.

U.S. EPA REGISTRATION NO.: 56782-1

CANADA P.C.P. ACT REGISTRATION NO.: 25034

II. INGREDIENT INFORMATION

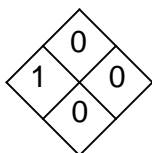
<u>Ingredient</u>	<u>CAS Number</u>	<u>Exposure Limits (ppm)</u> <u>for Undiluted Materials</u> <u>OSHA PEL ACGIH TLV</u>
Active:		
Octyl decyl dimethyl ammonium chloride	32426-11-2	None established
Dioctyl dimethyl ammonium chloride	5538-94-3	None established
Didecyl dimethyl ammonium chloride	7173-51-5	None established
Alkyl (C14, 50%; C12, 40%; C16, 10%) dimethyl benzyl ammonium chloride	68424-85-1	None established
Inert:		
Butyl Cellosolve*	111-76-2	25 (skin) 25 (skin)
Surfactants		None established
Wetting Agents		None established
Buffers		None established

*NOTE: Butyl Cellosolve is only one of the raw material ingredients that undergo processing and dilution during the manufacture of Simple Green d®. Upon completion of the manufacturing process, Simple Green d® does not possess the occupational health risks associated with exposure to undiluted Butyl Cellosolve. Verification of this is contained in the independent test results for Simple Green d®; see "Toxicological Information" section on Page 3 of this MSDS.

III. HAZARDS IDENTIFICATION

Hazard Rating (NFPA/HMIS)

Health = 1* Reactivity = 0
Fire = 0 Special = 0



Rating Scale

0 = minimal 1 = slight
2 = moderate 3 = serious
4 = severe

*Mild eye irritant - non-mutagenic and non-carcinogenic.

IV. FIRST AID MEASURES

Eye contact:	Immediately rinse the eye with large quantities of cool water; continue 10-15 minutes or until the material has been removed. If present, contact lenses should be removed immediately. Both upper and lower lids should be lifted to facilitate thorough rinsing.
Skin contact:	Minimal effects, if any, from diluted product; rinse skin with water, rinse shoes and launder clothing before reuse. Reversible reddening may occur in some dermal-sensitive users; thoroughly rinse area.
Swallowing:	Essentially nontoxic. Give several glasses of milk or water to dilute; do not induce vomiting. If stomach upset occurs, consult physician.
Inhalation:	Nontoxic. Prolonged exposure of workers to concentrate-mist during spray application may cause mild irritation of nasal passages or throat. Relocate workers to fresh air.

V. FIRE FIGHTING MEASURES

Simple Green d® is stable and will not burn.

Extinguishing Media:	Not flammable/nonexplosive. No special procedures required.
Special Fire Fighting Procedures:	None required.

VI. ACCIDENTAL RELEASE MEASURES

Recover usable material by convenient method; residual may be removed by wipe or wet mop.

VII. HANDLING, STORAGE & TRANSPORT INFORMATION

No special precautions required. This product is non-hazardous for storage and transport according to the U.S. Department of Transportation Regulations. This material does not meet the definition of a hazardous material according to 49 CFR, ICAO, IMDG and the UN Orange Book.

VIII. EXPOSURE CONTROLS

Exposure Limits: The Simple Green d® formulation presents no health hazards to the user when used according to label directions for its intended purposes. Mild skin and eye irritation is possible (please see Eye contact and Skin contact in Section IV.).

Ventilation: No special ventilation is required during use.

Human Health Effects or Risks from Exposure: Adverse human health effects are not expected from Simple Green d®, based upon the available toxicity data. **Simple Green d® is a mild eye irritant; mucous membranes may become irritated by concentrate-mist.**

Prolonged skin contact with Simple Green d® may irritate the skin. Repeated daily application to the skin without rinsing, or continuous contact of Simple Green d® on the skin may lead to irritation. Allergic reactions are not anticipated.

IX. PERSONAL PROTECTION

Precautionary Measures:	No special requirements under normal use conditions.
Eye Protection:	Caution, including reasonable eye protection, should always be used to avoid eye contact where splashing may occur, such as during spray applications.
Skin Protection:	No special precautions required; rinse completely from skin after contact.
Respiratory Protection:	No special precautions required.

X. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/odor:	Transparent green liquid with characteristic sassafras odor.		
Freezing Point:	-9 °C (16 °F)	Vapor Pressure:	25 mm Hg
Boiling Point:	98 °C (209 °F)	Vapor Density:	1.3 (air = 1)
Specific Gravity:	1.011	pH of concentrate:	9.5
Solubility in Water:	Completely soluble in fresh and salt water.	Evaporation rate:	0.4 (butyl acetate = 1)

XI. STABILITY AND REACTIVITY INFORMATION

Nonreactive. Simple Green d[®] is stable, even under fire conditions, and will not react with water, acids, or oxidizers.

XII. TOXICOLOGICAL INFORMATION

Nonhuman Toxicity

Acute Mortality Studies:

Oral LD₅₀ (rat): >5.0 g/Kg body weight

Dermal LD₅₀ (rabbit): >2.0 g/Kg body weight

Dermal Irritation: In a standard test on rabbits, mild irritation was found at 72 hours; well-defined reddening was observed at 7 and 14 days after exposure.

Dermal Sensitization: No allergic reactions occurred in guinea pigs treated with Simple Green d[®].

Eye Irritation: With or without rinsing with water, the irritation scores in rabbits at 24 hours did not exceed 17 (mild irritant) on a scale of 110 (extremely irritating); all scores were normal at seven days.

Carcinogenicity: Simple Green d[®] contains no carcinogenic compounds as defined by the National Toxicology Program (NTP), the International Agency for Research on Carcinogens (IARC), or the Occupational Health and Safety Administration (OSHA).

XIII. DISPOSAL CONSIDERATIONS

Simple Green d[®] is fully water soluble, and with dilution is biodegradable. If disposed by sewer or drain, diluted solutions will not harm sewage-treatment microorganisms. Dispose of in accordance with all applicable local, state, and federal laws.

IV. OTHER INFORMATION

Efficacy Information

- Virucidal:** Simple Green d[®] kills HIV-1, the human immunodeficiency virus associated with Acquired Immune Deficiency in humans. In a standard test, a 1:10 dilution of Simple Green d[®] in hard water was virucidal for HIV after a 10-minute exposure under an organic load simulated by 5% blood serum.
- Bactericidal:** Simple Green d[®] kills gram positive and gram negative bacteria, including *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Salmonella chloreraesuis*, *Streptococcus pyogenes*, and *Escherichia coli*. Efficacy was demonstrated in a standard test using a 10-minute exposure, 5% organic (blood serum) load and a 1:10 dilution of Simple Green d[®].

General Information

- Containers:** Simple Green d[®] residues can be completely removed by rinsing with water; the container may be recycled.

*** NOTICE ***

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