

MATERIAL SAFETY DATA SHEET: FOAMING SIMPLE GREEN®: BBQ, GRILL & MICROWAVE CLEANER

I. PRODUCT & COMPANY INFORMATION

PRODUCT NAME: FOAMING SIMPLE GREEN® -- BBQ, GRILL & MICROWAVE CLEANER
OTHER NAME: FOAMING SIMPLE GREEN®

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COMPANY NAME: SUNSHINE MAKERS, INC.
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For 24-hour emergency, call Chem-Tel, Inc.: 800-255-3924

II. INGREDIENT INFORMATION

REPORTABLE COMPONENTS	CAS NUMBER	VAPOR PRESSURE mm Hg @ TEMP		WEIGHT PERCENT
*2-Butoxyethanol, Glycol Ether EB OSHA PEL: 25 ppm, ACGIH TLV: 25 ppm, (SKIN)	111-76-2	.6	68	<5
Butane OSHA PEL: 800 ppm, ACGIH TLV: 800 ppm	106-97-8	1640	68	4
Propane OSHA PEL: 1000 ppm, ACGIH TLV: ASPHYXIA	74-98-6	6350	68	1

*Note, that the 2-butoxyethanol is only one of the raw material ingredients that undergoes processing and dilution during the manufacture of Foaming Simple Green®. Upon completion of the manufacturing process, Foaming Simple Green® does not possess the occupational health risks associated with exposure to undiluted Butyl Cellosolve. Verification of this is contained in the independent test results detailed under "Toxicological Information."

The Butyl Cellosolve in Foaming Simple Green® is part of a chemical category (glycol ethers) regulated by the Emergency Planning and Community Right-to-Know Act (SARA, Title III, section 313); therefore, a reporting requirement exists in the U.S.A. Based upon chemical analysis Foaming Simple Green® contains no known EPA priority pollutants, heavy metals, or chemicals listed under RCRA, CERCLA, or CWA. Analysis by TCLP (Toxicity Characteristic Leaching Procedure) according to RCRA revealed no toxic organic or inorganic constituents.

III. HAZARDS IDENTIFICATION

NFPA: Level 1 (Aerosol)
HMIS: Health = 1, Reactivity = 0, Flammability = 4

Foaming Simple Green® is non-mutagenic and non-carcinogenic. **None of the ingredients in Foaming Simple Green® are regulated or listed as potential cancer agents by Federal OSHA, NTP, or IARC.**

IV. FIRST AID MEASURES

SYMPTOMS OF OVEREXPOSURE AND FIRST AID TREATMENT

- Eye contact:** Reddening may develop. Immediately rinse the eye with large quantities of cool water; continue 10-15 minutes or until the material has been removed; be sure to remove contact lenses, if present, and to lift upper and lower lids during rinsing. Get medical attention if irritation persists.
- Skin contact:** Minimal effects, if any; rinse skin with water, rinse shoes and launder clothing before reuse. Reversible reddening may occur in some dermal-sensitive users; thoroughly rinse area and get medical attention if reaction persists.
- Swallowing:** Essentially non-toxic. Give several glasses of water to dilute; do not induce vomiting. If stomach upset occurs, consult physician.
- Inhalation:** Intentional concentration of propellant could cause respiratory irritation, headache, nausea, fatigue, drowsiness, impaired coordination. Remove to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention.

V. FIRE FIGHTING MEASURES

Extinguishing medium as appropriate for combustibles in area.

Special fire fighting procedures: Foaming Simple Green® contains a flammable propellant and firefighters should wear self-contained breathing apparatus when fighting fires containing or around this product. Shut off all sources of ignition if possible. Keep containers cool with water spray to prevent rupture. Ventilate area. Contain spill and dike if possible. For leaks and spills that have not ignited, water spray can be used to disperse the flammable vapor and protect personnel attempting to stop the leak. Do not use direct stream of water because the flammable portion will float and can be reignited.

Unusual fire and explosion hazards: Firefighters should wear SCBA's in a positive pressure mode with full-face shield. The flammable components are heavier than air and may travel long distances and accumulate in low areas or spread along ground from handling site. Eliminate all sources of ignition as vapor may ignite. Carbon oxides may be formed.

NOTE: Per the DOT Flame Extension Test, Foaming Simple Green® did not produce a flame projection or flashback.

VI. ACCIDENTAL RELEASE MEASURES

Recover usable material by convenient method; residual may be removed by wipe or wet mop. Ventilate area especially low places where heavy vapors might collect. Extinguish all ignition sources.

VII. HANDLING, STORAGE & TRANSPORT INFORMATION

Store in tightly sealed containers. Keep away from heat, sparks, open flame and out of direct sunlight. Store below 120 °F. Do not puncture or incinerate (burn) cans. Do not stick pin, nail or any other sharp object into opening on top of can.

MODE	BASIC DESCRIPTION	ADDITIONAL DESCRIPTIVE	PKG. INSTRUCTION	ER INFO.
IATA	Consumer Commodity [Less than 17 fl. oz. (500 ml)]	9, ID8000	910	ERG 171
	Aerosols, flammable [17 fl. oz. (500 ml) or greater]	2.1, UN1950	Y203, LTD QTY	ERG 126
IMDG	Aerosols [For all sizes]	2, UN1950		ERG 126 EmS 2-13 MFAG 620
DOT (40 CFR)	Consumer Commodity [For all sizes]	ORM-D		ERG 171
UPS Air	Consumer Commodity [For all sizes]	ORM-D-AIR		ERG 171

VIII. EXPOSURE CONTROLS

Exposure Limits: The Foaming Simple Green® formulation presents no health hazards to the user, other than mild eye irritancy.

Ventilation: No special ventilation is required during normal use.

Human Health Effects or Risks from Exposure: Adverse effects on human health are not expected from Foaming Simple Green®. Foaming Simple Green® is a mild eye irritant; mucous membranes may become irritated by concentrate-mist. Foaming Simple Green® is not likely to irritate the skin in the majority of users. Repeated daily application to the skin without rinsing, or continuous contact of Foaming Simple Green® on the skin may lead to temporary, but reversible, irritation.

Medical Conditions Aggravated by Exposure: No aggravation of existing medical conditions is expected; some dermal-sensitive users may react to dermal contact by Foaming Simple Green®.

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.

Skin Protection: No special precautions required; rinse completely from skin after contact.

Respiratory Protection: No special precautions required.

Work and Hygienic Practices: Wash or rinse hands before touching eyes or contact lenses. Follow standard hygienic practices for handling cleaning agents.

X. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/odor: White foam, mild soap odor

Boiling Range: 100.6 °C

Specific Gravity: 1.020

pH: 9.35

Vapor Pressure: 18 mm Hg @ 20 °C; 23.5 mm Hg @ 26 °C

Water Solubility: Completely soluble in water.

Volatile Organic Compounds: 50 g/L

Detection: Foaming Simple Green® has a characteristic odor that is **not** indicative of any hazardous situation.

XI. STABILITY AND REACTIVITY INFORMATION

Nonreactive. Foaming Simple Green® is stable, and will not react with water or oxidizers. Hazardous polymerization will not occur.

XII. TOXICOLOGICAL INFORMATION

Nonhuman Toxicity (data for Simple Green®)

Acute Mortality Studies:

Oral LD₅₀ (rat): >5.0 g/kg body weight // Dermal LD₅₀ (rabbit): >2.0 g/kg body weight

Dermal Irritation: Only mild, but reversible, irritation was found in a standard 72-hr test on rabbits. A value of 0.2 (non-irritating) was found on a scale of 8.

Eye Irritation: With or without rinsing with water, the irritation scores in rabbits at 24 hours did not exceed 15 (mild irritant) on a scale of 110.

Subchronic dermal effects: No adverse effects, except reversible dermal irritation, were found in rabbits exposed to Simple Green (up to 2.0 g/kg/day for 13 weeks) applied to the skin of 25 males and 25 females. Only female body weight gain was affected. Detailed microscopic examination of all major tissues showed no adverse changes.

Fertility Assessment by Continuous Breeding: The Simple Green® formulation had no adverse effect on fertility and reproduction in CD-1 mice with continuous administration for 18 weeks, and had no adverse effect on the reproductive performance of their offspring.

XIII. BIODEGRADABILITY AND ENVIRONMENTAL TOXICITY INFORMATION

Biodegradability:

Like Simple Green®, Foaming Simple Green® is readily decomposed by naturally occurring microorganisms. The biological oxygen demand (BOD), as a percentage of the chemical oxygen demand (COD), will approximate 60% after 11 days. In a standard biodegradation test with soils from three different countries, Butyl Cellosolve reached 50% degradation in six to 23 days, depending upon soil type, and exceeded the rate of degradation for glucose, which was used as a control for comparison.

Environmental Toxicity Information:

Foaming Simple Green® is considered practically non-toxic per EPA's aquatic toxicity scale.

XIV. DISPOSAL CONSIDERATIONS

Foaming Simple Green® is fully water soluble and biodegradable and will not harm sewage-treatment microorganisms if disposal by sewer or drain is necessary. Dispose of in accordance with all applicable local, state, and federal laws.

Containers: Do not throw empty containers in trash compactor or into fire. Do not store in direct sun.

XV. OTHER INFORMATION

Contact Point: Sunshine Makers, Inc., Research and Development Division: 562-795-6000.

***** NOTICE *****

All information appearing herein is based upon data obtained by the manufacturer and recognized technical sources. Judgments as to the suitability of information herein for purchaser's purposes are necessarily purchaser's responsibility. Therefore, although reasonable care has been taken in the preparation of this information, Sunshine Makers, Inc. or its distributors extends no warranties, makes no representations and assumes no responsibility as to the suitability of such information for application to purchaser's intended purposes or for consequences of its use.