



MATERIAL SAFETY DATA SHEET

Section 1: Product & Company Identification

Product Name: Smoke Test®
Product Number (s): 02105, 72105
Product Use: Smoke Detector Tester

Manufacturer / Supplier Contact Information:

In United States:

CRC Industries, Inc.
885 Louis Drive
Warminster, PA 18974
www.crcindustries.com
1-215-674-4300 (General)
(800) 521-3168 (Technical)
(800) 272-4620 (Customer Service)

In Canada:

CRC Canada Co.
2-1246 Lorimar Drive
Mississauga, Ontario L5S 1R2
www.crc-canada.ca
1-905-670-2291

In Mexico:

CRC Industries Mexico
Av. Benito Juárez 4055 G
Colonia Orquídea
San Luís Potosí, SLP CP 78394
www.crc-mexico.com
52-444-824-1666

24-Hr Emergency – CHEMTREC: (800) 424-9300 or (703) 527-3887

Section 2: Hazards Identification

Emergency Overview

DANGER: Extremely Flammable. Contents Under Pressure.

Appearance & Odor: Packaged product is a clear, water-white liquid; dispensed product is a smoky mist; alcohol odor

Potential Health Effects:

ACUTE EFFECTS:

EYE: Liquid contact can cause severe irritation, redness, tearing, blurred vision and possible freeze burns. The effects of eye contact with the spray mist are likely to be less severe.

SKIN: Contact with evaporating liquid can cause frostbite. Contact with spray mist is not likely to produce health effects.

INHALATION: Inhalation of vapor may produce anesthetic effects, irritation of nose and throat, and feeling of euphoria. Prolonged overexposure can cause rapid breathing, headache, dizziness, narcosis, central nervous system depression, unconsciousness or death from asphyxiation, depending on concentration and duration of exposure.

INGESTION: May cause gastrointestinal irritation, including nausea and vomiting. Ingestion of ethanol can cause drunkenness and central nervous system depression.

CHRONIC EFFECTS: Ethanol is a developmental toxin and various effects have been associated with ethanol abuse, including physical dependence, cardiac myopathy, amnesia, and hepatotoxicity.

TARGET ORGANS: Liver

Medical Conditions Aggravated by Exposure: Pre-existing liver or nervous system conditions

See Section 11 for toxicology and carcinogenicity information on product ingredients.

Section 3: Composition/Information on Ingredients

COMPONENT	CAS NUMBER	% by Wt.
Ethanol	64-17-5	25 – 35
1,2,3-Propanetriol	56-81-5	2 – 5
Liquefied petroleum gas	68476-86-8	65 - 75

Section 4: First Aid Measures

- Eye Contact: Immediately flush with plenty of water for 15 minutes. Call a physician if irritation persists.
- Skin Contact: Remove contaminated clothing and wash affected area with soap and water. Call a physician if irritation persists. Wash contaminated clothing prior to re-use.
- Inhalation: Remove person to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Call a physician.
- Ingestion: Do not induce vomiting. If victim is completely conscious and alert, have them drink water. Contact a physician for further treatment.
- Note to Physicians:* Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

Section 5: Fire-Fighting Measures

Flammable Properties: This product is extremely flammable in accordance with aerosol flammability definitions. (See 16 CFR 1500.3(c)(6)) Use with caution around energized equipment.

Flash Point: 56°F / 13°C (TCC)	Upper Explosive Limit: 19.0
Autoignition Temperature: 685°F / 363°C	Lower Explosive Limit: 1.9

Fire and Explosion Data:

- Suitable Extinguishing Media: Use Class B extinguishing agents such as dry chemical, CO₂, water spray or alcohol-resistant foam.
- Products of Combustion: oxides of carbon, volatile hydrocarbon vapors
- Explosion Hazards: Aerosol containers, when exposed to heat from fire, may build pressure and explode. Vapors can accumulate and create a flammable atmosphere.
- Protection of Fire-Fighters: Firefighters should wear self-contained, NIOSH-approved breathing apparatus for protection against suffocation and possible toxic decomposition products. Proper eye and skin protection should be provided. Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

Section 6: Accidental Release Measures

- Personal Precautions: Use personal protection recommended in Section 8.
- Environmental Precautions: Take precautions to prevent contamination of ground and surface waters. Do not flush into sewers or storm drains.
- Methods for Containment & Clean-up: Eliminate all sources of ignition. Dike area to contain spill. Ventilate the area

with fresh air. If in confined space or limited air circulation area, clean-up workers should wear appropriate respiratory protection. Recover or absorb spilled material using an absorbent designed for chemical spills. Place used absorbents into proper waste containers.

Section 7: Handling and Storage

Handling Procedures: Do not use this product near sources of ignition. Liquid contents are flammable. Dispensed mist can create flammable atmosphere. Use in ventilated areas only. Avoid inhaling vapors. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. For product use instructions, please see the product label.

Storage Procedures: Store in a cool dry area out of direct sunlight. Aerosol cans must be maintained below 120°F / 49°C to prevent cans from rupturing. Store out of reach of children

Aerosol Storage Level: III

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines:

COMPONENT	OSHA		ACGIH		OTHER		UNIT
	TWA	STEL	TWA	STEL	TWA	SOURCE	
Ethanol	1000	NE	NE	1000	NE		ppm
1,2,3-Propanetriol	15	NE	10	NE	NE		mg/m ³
Liquefied petroleum gas	1000	NE	1000	NE	NE		ppm
N.E. – Not Established (c) – ceiling (s) – skin (v) – vacated							

Controls and Protection:

Engineering Controls: Area should have ventilation to provide fresh air. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at the source, preventing dispersion into the general work area. Use mechanical means if necessary to maintain vapor levels below the exposure guidelines. If working in a confined space, follow applicable OSHA regulations.

Respiratory Protection: None required for normal work where adequate ventilation is provided. If engineering controls are not feasible or if exposure exceeds the applicable exposure limits, use a NIOSH-approved cartridge respirator with organic vapor cartridge. Air monitoring is needed to determine actual employee exposure levels. Use a self-contained breathing apparatus in confined spaces and for emergencies.

Eye/face Protection: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

Skin Protection: Use protective gloves such as rubber, neoprene or vinyl. Also, use full protective clothing if there is prolonged or repeated contact of liquid with skin.

Section 9: Physical and Chemical Properties

Physical State: liquid (dispensed product is a mist)
Color: colorless (dispensed product has smoky haze)
Odor: alcohol
Odor Threshold: ND

Specific Gravity: 0.817
 Initial Boiling Point: 173°F / 78°C
 Freezing Point: - 227°F / -144°C
 Vapor Pressure: ~44.6 mmHg @ 68°F / 20°C
 Vapor Density: > 1 (air = 1)
 Evaporation Rate: very fast
 Solubility: complete
 Coefficient of water/oil distribution: ND
 pH: NA
 Volatile Organic Compounds: wt %: 97.5 g/L: 796.6 lbs./gal: 6.64

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: excessive heat, sparks, open flame or other sources of ignition

Incompatible Materials: acetyl chloride, or other strong oxidizing agents or strong acids

Hazardous Decomposition Products: oxides of carbon; thermal decomposition may release acrolein

Possibility of Hazardous Reactions: No

Section 11: Toxicological Information

Long-term toxicological studies have not been conducted for this product. The following information is available for components of this product.

Acute Toxicity:

<u>Component</u>	<u>Oral LD50 (rat)</u>	<u>Dermal LD50 (rabbit)</u>	<u>Inhalation LC50 (rat)</u>
Ethanol	760 mg/kg	No data	20,000 ppm/10H
1,2,3-Propanetriol	12,600 mg/kg	No data	No data
Liquefied petroleum gas	No data	No data	No data

Chronic Toxicity:

<u>Component</u>	<u>OSHA Carcinogen</u>	<u>IARC Carcinogen</u>	<u>NTP Carcinogen</u>	<u>Irritant</u> E (mild) / S (moderate)	<u>Sensitizer</u>
Ethanol	No	No	No	E (mild) / S (moderate)	Unknown
1,2,3-Propanetriol	No	No	No	None	Unknown
Liquefied petroleum gas	No	No	No	None	No

E – Eye	S – Skin	R - Respiratory
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Reproductive Toxicity: Ethanol: Developmental Toxin
Teratogenicity: No information available
Mutagenicity: No information available
Synergistic Effects: No information available

Section 12: Ecological Information

Ecological studies have not been conducted for this product. The following information is available for components of this product.

Ecotoxicity: Ethanol - 48 Hr EC50 Daphnia magna: 9268 mg/L
 5 min EC50 Photobacterium phosphoreum: 35470 mg/L

Persistence / Degradability: Ethanol and 1,2,3-propanetriol are expected to be biodegradable.
 Bioaccumulation / Accumulation: Ethanol is not expected to bioaccumulate.
 Mobility in Environment: No information available

Section 13: Disposal Considerations

Waste Classification: Any liquid product would be a RCRA hazardous waste for the characteristic of ignitability with a waste code of D001. (See 40 CFR Part 261.20 – 261.33)
 Empty aerosol containers may be recycled.

All disposal activities must comply with federal, state, provincial and local regulations. Local regulations may be more stringent than state, provincial or national requirements.

Section 14: Transport Information

US DOT (ground): Consumer Commodity, ORM-D
 ICAO/IATA (air): Consumer Commodity, ID8000, 9
 IMO/IMDG (water): Aerosols, UN1950, 2.1, Limited Quantity
 Special Provisions: None

Section 15: Regulatory Information

U.S. Federal Regulations:

Toxic Substances Control Act (TSCA):

All ingredients are either listed on the TSCA inventory or are exempt.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

Reportable Quantities (RQ's) exist for the following ingredients: None

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Superfund Amendments Reauthorization Act (SARA) Title III:

Section 302 Extremely Hazardous Substances (EHS): None

Section 311/312 Hazard Categories:	Fire Hazard	Yes
	Reactive Hazard	No
	Release of Pressure	Yes
	Acute Health Hazard	Yes
	Chronic Health Hazard	Yes

Section 313 Toxic Chemicals: This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:
 None

Clean Air Act:

Section 112 Hazardous Air Pollutants (HAPs): None

Occupational Safety and Health Administration:

This product is regulated by the Hazard Communications Standard.

U.S. State Regulations:

California Safe Drinking Water and Toxic Enforcement Act (Prop 65):

This product may contain the following chemicals known to the state of California to cause cancer, birth defects or other reproductive harm: None

Consumer Products VOC Regulations: This product is not regulated.

State Right to Know:

New Jersey: 64-17-5
Pennsylvania: 56-81-5, 64-17-5
Massachusetts: 56-81-5, 64-17-5
Rhode Island : 56-81-5, 64-17-5

Canadian Regulations:

Controlled Products 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.

WHMIS Hazard Class: A, B5, D2B

Canadian DSL Inventory: All ingredients are either listed on the DSL Inventory or are exempt.

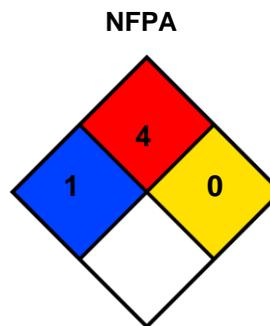
European Union Regulations:

RoHS Compliance: This product is compliant with Directive 2002/95/EC of the European Parliament and of the Council of 27 January 2003. This product does not contain any of the restricted substances as listed in Article 4(1) of the RoHS Directive.

Additional Regulatory Information: None

Section 16: Other Information

HMIS® (II)	
Health:	1
Flammability:	4
Reactivity:	0
PPE:	B



Ratings range from 0 (no hazard) to 4 (severe hazard)

Prepared By: Michelle Rudnick
CRC #: 418
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Changes since last revision: Section 13: Disposal Considerations

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. This information is accurate to the best of CRC Industries' knowledge or obtained from sources believed by CRC to be accurate. Before using any product, read all warnings and directions on the label. For further clarification of any information contained on this MSDS consult your supervisor, a health & safety professional, or CRC Industries.

ACGIH:	American Conference of Governmental Industrial Hygienists	NA:	Not Applicable
CAS:	Chemical Abstract Service	ND:	Not Determined
CFR:	Code of Federal Regulations	NIOSH:	National Institute of Occupational Safety & Health
DOT:	Department of Transportation	NFPA:	National Fire Protection Association
DSL:	Domestic Substance List	NTP:	National Toxicology Program
g/L:	grams per Liter	OSHA:	Occupational Safety and Health Administration
HMIS:	Hazardous Materials Identification System	PMCC:	Pensky-Martens Closed Cup
IARC:	International Agency for Research on Cancer	PPE:	Personal Protection Equipment
IATA:	International Air Transport Association	ppm:	Parts per Million
ICAO:	International Civil Aviation Organization	RoHS:	Restriction of Hazardous Substances
IMDG:	International Maritime Dangerous Goods	STEL:	Short Term Exposure Limit
IMO:	International Maritime Organization	TCC:	Tag Closed Cup
lbs./gal:	pounds per gallon	TWA:	Time Weighted Average
LC:	Lethal Concentration	WHMIS:	Workplace Hazardous Materials Information System
LD:	Lethal Dose		