



Smoke Centurion


SAFETY DATA SHEET

SDS0089US
ACCORDING TO US CFR 1910.1200

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Product Name	Smoke Centurion.
Trade Name	M8 Smoke-01-XXX (XXX denotes customer variant).
CAS No.	Mixture.
EINECS No.	Mixture.
1.2 Recommended use of the chemical and restrictions on use	
Identified Use(s)	Smoke simulation.
Uses Advised Against	None known.
1.3 Details of the supplier of the safety data sheet	
Company Identification	SDi 1345 Campus Parkway, Suite A18 Wall Township, NJ 07753 6815 (732) 751 9266 (732) 751 9241 sales@sdifire.com
Telephone	
Fax	
E-mail	
1.4 Emergency telephone number	
Info Trac	1-800-535-5053

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
US CFR 1910.1200	Flam. Aerosol 1: Extremely flammable aerosol.
2.2 Label elements	
Product Name	Smoke Centurion.
Hazard Pictogram(s)	
Signal Word(s)	GHS02 Danger.
Hazard Statement(s)	H222: Extremely flammable aerosol.
Precautionary Statement(s)	P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211: Do not spray on an open flame or other ignition source. P251: Do not pierce or burn, even after use. P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 122°F (50°C).
Additional Information	Pressurized container: May burst if heated.
2.3 Other hazards	None.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Product as supplied: Aerosol.

3.1 Mixtures

Hazardous Ingredient(s)	CAS No.	%W/W
Butane	106-97-8	50 – 100
Propane	74-98-6	10 – 25
Ethanol	64-17-5	0 – 5

3.2 Additional Information

None.

4. SECTION 4: FIRST AID MEASURES



4.1 Description of first aid measures

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact

Wash with plenty of water.

Eye Contact

Flush eyes with water for at least 15 minutes while holding eyelids open.

Ingestion

Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

Pressurized container: May burst if heated.

5.1 Extinguishing Media

Suitable Extinguishing Media

Extinguish with carbon dioxide, dry chemical, foam or water spray.

Unsuitable Extinguishing Media

Do not use water jet.

5.2 Special hazards arising from the substance or mixture

Heating may cause pressure rise with risk of bursting.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.



6. SECTION 6: ACCIDENTAL RELEASE MEASURES

The product is an aerosol. It is unlikely to present spillage or leakage hazard. In case of rupture, released content should be contained as any other solvent spill.

- 6.1 **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation. Wear suitable gloves and eye/face protection.
- 6.2 **Environmental precautions** Do not release large quantities into the surface water or into drains.
- 6.3 **Methods and material for containment and cleaning up** Collect mechanically and dispose of according to Section 13. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Containers must not be punctured or destroyed by burning, even when empty.
- 6.4 **Reference to other sections** See Also Section: 8, 13.

7. SECTION 7: HANDLING AND STORAGE




- 7.1 **Precautions for safe handling** Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Provide adequate ventilation. Do not eat, drink or smoke during work. Wash hands thoroughly after handling.
- 7.2 **Conditions for safe storage, including any incompatibilities** Observe official regulations on storing packagings with pressurized containers.
 Storage temperature Pressurized container: May burst if heated. Protect from sunlight and do not expose to temperatures exceeding 122°F (50 °C).
 Storage life Stable under normal conditions.
 Incompatible materials None anticipated.
- 7.3 **Specific end use(s)** Smoke simulation.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control parameters**
- 8.1.1 **Occupational Exposure Limits**

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Butane	106-97-8	800	1900	-	-	NIOSH
Propane	74-98-6	1000	1800	-	-	NIOSH
		1000	1800	-	-	PEL (OSHA)
Ethanol	64-17-5	1000	1900	-	-	NIOSH
		1000	1900	-	-	PEL (OSHA)

Source:
 NIOSH = National Institute of Occupational Safety & Health
 OSHA = Occupational Safety and Health Administration

<p>8.2 Appropriate engineering controls</p> <p>8.3 Individual protection measures, such as personal protective equipment (PPE)</p> <p>Eye/face protection</p>  <p>Skin protection (Hand protection/ Other)</p>  <p>Respiratory protection</p>  <p>Thermal hazards</p>	<p>Provide adequate ventilation.</p> <p>If eye contact is likely: Wear protective eyewear (goggles, face shield, or safety glasses).</p> <p>Wear suitable gloves if prolonged skin contact is likely. Gloves: Nitrile rubber, NBR.</p> <p>No personal respiratory protective equipment normally required. Handling of larger amounts: In case of insufficient ventilation, wear suitable respiratory equipment.</p> <p>Not applicable.</p>
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9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<p>9.1 Information on basic physical and chemical properties</p> <p>Appearance</p> <p>Color</p> <p>Odor</p> <p>Odor Threshold</p> <p>pH</p> <p>Melting Point/Freezing Point</p> <p>Initial boiling point and boiling range</p> <p>Flash Point</p> <p>Evaporation Rate</p> <p>Flammability (solid, gas)</p> <p>Upper/lower flammability or explosive limits</p> <p>Vapor pressure</p> <p>Density</p> <p>Vapor density</p> <p>Relative density</p> <p>Solubility(ies)</p> <p>Partition coefficient: n-octanol/water</p> <p>Ignition temperature</p> <p>Auto-ignition temperature</p> <p>Decomposition Temperature</p> <p>Kinematic Viscosity</p> <p>Explosive properties</p> <p>Oxidizing properties</p> <p>9.2 Other information</p> <p>Organic solvents – Content</p>	<p>Aerosol.</p> <p>Colorless.</p> <p>Characteristic.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not determined.</p> <p>-47.4°F (-44°C)</p> <p><32°F (<0°C)</p> <p>Not available.</p> <p>Extremely flammable.</p> <p>Explosive Limit Ranges: 1.5 – 15.0 Vol-%</p> <p>62.4 psig (4.3 bar) @ 68°F</p> <p>36.2 lb/ft³ (0.58 g/cm³) @ 68°F</p> <p>Not determined.</p> <p>Not determined.</p> <p>Immiscible with water.</p> <p>Not determined.</p> <p>689°F (365°C)</p> <p>Product is not selfigniting.</p> <p>Not determined.</p> <p>Not determined.</p> <p>Not explosive.</p> <p>Not oxidizing.</p> <p>96.4%</p>
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10. SECTION 10: STABILITY AND REACTIVITY

<p>10.1 Reactivity</p> <p>10.2 Chemical stability</p> <p>10.3 Possibility of hazardous reactions</p> <p>10.4 Conditions to avoid</p> <p>10.5 Incompatible materials</p> <p>10.6 Hazardous decomposition product(s)</p>	<p>Stable under normal conditions.</p> <p>Stable under normal conditions.</p> <p>Stable under normal conditions.</p> <p>Heat and direct sunlight.</p> <p>None anticipated.</p> <p>None known.</p>
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11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
11.1.1	Mixtures	
	Acute toxicity	Low acute toxicity.
	Irritation	Non-irritant.
	Corrosivity	Not classified.
	Sensitization	It is not a skin sensitizer.
	Repeated dose toxicity	None anticipated.
	Carcinogenicity	No evidence of carcinogenicity.
	Mutagenicity	There is no evidence of mutagenic potential.
	Toxicity for reproduction	None anticipated.
	Aspiration hazard	None anticipated.
11.2	Other information	None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	Low toxicity to aquatic organisms.
12.2	Persistence and degradability	The product is readily biodegradable. Unlikely to persist.
12.3	Bioaccumulative potential	The product has no potential for bioaccumulation.
12.4	Mobility in soil	Immiscible with water. The product is predicted to have low mobility in soil.
12.5	Other adverse effects	None.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Recycle only completely emptied packaging. Containers must not be punctured or destroyed by burning, even when empty. Non-emptied aerosol: Dispose of wastes in an approved waste disposal facility. Do NOT landfill.
13.2	Additional Information	Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

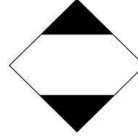
14.1	UN number	UN 1950
	ADR, IMDG, IATA	
14.2	UN proper shipping name	1950 AEROSOLS
	ADR	AEROSOLS
	IMDG	AEROSOLS, Flammable
	IATA	
14.3	Transport hazard class(es)	
	ADR	
	Class / Classification	2 5F Gases
	Label	2.1
	IMDG, IATA	
	Class / Division	2.1
	Label	2.1
14.4	Packing group	
	ADR, IMDG, IATA	None.
14.5	Environmental hazards	
	Marine Pollutant	No.
14.6	Special precautions for user	Warning: Gases.
	Kemler Code	-
	IMDG EMS	F-D, S-U
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.

14.8 Additional Information

ADR

Limited Quantity (LQ)

1 L



ADR Transport Category
Tunnel Restriction Code

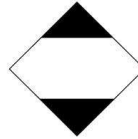
2

Not applicable in Limited Quantities.

IMDG

Limited Quantity (LQ)

1L



IATA

Limited Quantity (LQ)

1L



UN "Model Regulation"
US

UN 1950, AEROSOLS, 2.1
ORM-D when transported in limited quantities (< 30kg or 66lb gross weight).

15. SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 OSHA

Toxic and hazardous substances (29 CFR 1910; Subpart Z)
National emission standards for hazardous air pollutants (40 CFR 61.01)

Listed: Propane (CAS No.: 74-98-6)
Listed: Ethanol (CAS No.: 64-17-5)
All chemicals are not listed.

15.1.2 Title III Consolidated List of Lists

Clean Air Act Section 112(r) Threshold Quantity

Listed: Butane (CAS No.: 106-97-8)
Listed: Propane (CAS No.: 74-98-6)
10000

15.1.3 OSPAR List of Chemicals for Priority Action

All chemicals are not listed.

15.1.4 State Right to Know Lists

Butane (CAS No.: 106-97-8):
New Jersey, Pennsylvania, Massachusetts, Rhode Island.

Propane (CAS No.: 74-98-6):
New Jersey, Pennsylvania, Massachusetts.

Ethanol (CAS No.: 64-17-5):
New Jersey, Pennsylvania, Massachusetts.

15.1.5 TSCA (Toxic Substance Control Act)

All chemicals listed.

15.1.6 Proposition 65 (California)

All chemicals are not listed.

15.1.7 CAA 602 - Ozone Depleting Substances (ODS)

All chemicals are not listed.



16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

NFPA		HMIS	
Health	1	Health	1
Fire	4	Flammability	4
Instability	0	Physical hazards	0

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
NIOSH	National Institute for Occupational Safety and Health
PEL	Permissible Exposure Limits
CAA	Clean Air Act
OSHA	Occupational Safety and Health Administration
OSPAR	Oslo and Paris Convention
ADR	Accord européen relative au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG	International Maritime Code for Dangerous Goods
IATA	International Air Transport Association

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