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
Telephone	(732) 751 9266
Fax	(732) 751 9241
E-mail	sales@sdifire.com

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)	 GHS02
Signal Word(s)	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 122ºF (50 ºC).
	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 Institue of Occupational Safety & Health
OSHA = Occupational Safety and Health Administration

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

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	**Information on basic physical and chemical properties**	
	Appearance	Aerosol.
	Color	Colorless.
	Odor	Characteristic.
	Odor Threshold	Not determined.
	pH	Not determined.
	Melting Point/Freezing Point	Not determined.
	Initial boiling point and boiling range	-47.4°F (-44°C)
	Flash Point	<32°F (<0°C)
	Evaporation Rate	Not available.
	Flammability (solid, gas)	Extremely flammable.
	Upper/lower flammability or explosive limits	Explosive Limit Ranges: 1.5 – 15.0 Vol-%
	Vapor pressure	62.4 psig (4.3 bar) @ 68°F
	Density	36.2 lb/ft^3 (0.58 g/cm³) @ 68°F
	Vapor density	Not determined.
	Relative density	Not determined.
	Solubility(ies)	Immiscible with water.
	Partition coefficient: n-octanol/water	Not determined.
	Ignition temperature	689°F (365°C)
	Auto-ignition temperature	Product is not selfigniting.
	Decomposition Temperature	Not determined.
	Kinematic Viscosity	Not determined.
	Explosive properties	Not explosive.
	Oxidizing properties	Not oxidizing.
9.2	**Other information**	
	Organic solvents – Content	96.4%

10. SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Stable under normal conditions.
10.2	**Chemical stability**	Stable under normal conditions.
10.3	**Possibility of hazardous reactions**	Stable under normal conditions.
10.4	**Conditions to avoid**	Heat and direct sunlight.
10.5	**Incompatible materials**	None anticipated.
10.6	**Hazardous decomposition product(s)**	None known.

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.

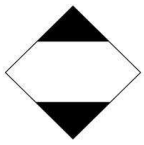
14. SECTION 14: TRANSPORT INFORMATION

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

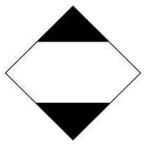
ADR

Limited Quantity (LQ)	1 L
ADR Transport Category	2
Tunnel Restriction Code	Not applicable in Limited Quantities.



IMDG

Limited Quantity (LQ)	1L



IATA

Limited Quantity (LQ)	1L

UN "Model Regulation"	UN 1950, AEROSOLS, 2.1
US	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)	Listed: Propane (CAS No.: 74-98-6) Listed: Ethanol (CAS No.: 64-17-5)
National emission standards for hazardous air pollutants (40 CFR 61.01)	All chemicals are not listed.

15.1.2 Title III Consolidated List of Lists

	Listed: Butane (CAS No.: 106-97-8) Listed: Propane (CAS No.: 74-98-6)
Clean Air Act Section 112(r) Threshold Quantity	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 elative 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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