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SUPERIOR SIGNAL COMPANY, INC.
MATERIAL SAFETY DATA SHEET

MSDS 1206

SECTION 1: PRODUCT IDENTIFICATION

Company Address: P. O. Box 96, Spotswood, NJ 08884
Telephone Number: (908) 251-0800
Chemical Family: Screening Smoke
Trade Name: Superior Smoke fire fighters smoke drills

SECTION 2: PRODUCT INGREDIENTS (SMOKE)

Neither TLV nor PEL applicable because product is intended for use in short term training exercises.

	TLV	PEL	8-hour time weight-
	mg/m ³	mg/m ³	ted average
Hydrated Zinc Chloride	1	1	
Water Condensate	-	-	
Carbon Monoxide	55	55	

All other ingredients are present in negligible amounts and/or non-hazardous.

Superior Smoke products are available in various sizes that provide sufficient materials to create obscuring smoke for different sized areas.

Superior #2B	-	8,000 cu. ft.:	227 m ³
Superior #3C	-	40,000 cu. ft.:	1,133 m ³
Superior #W3C	-	40,000 cu. ft.:	1,133 m ³
Superior Smoke Grenade	-	115,000 cu. ft.:	3,256 m ³
Superior White Smoke Pot	-	500,000 cu. ft.:	14,158 m ³

SECTION 3: PHYSICAL DATA (SMOKE)

Boiling Point:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Solubility in Water: (Zinc Chloride)	Soluble
pH:	No Data
Appearance and Odor:	Gray to white with an odor of burning paper.

SECTION 4: FIRE & EXPLOSION HAZARD DATA

(SMOKE): Flash Point (method used):	None
Autoignition:	Not Applicable
Flammable limits in air:	Not Applicable

(SOLID PRODUCT): Extinguishing Media: Use media suitable for surrounding fire.

(SMOKE/SOLID PRODUCT): Special fire fighting protective equipment: self-contained breathing apparatus and full protective clothing.

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MATERIAL SAFETY DATA SHEET (continued)

Unusual fire and explosion hazards: None Known

SECTION 5: REACTIVITY DATA

Stability: Stable under normal conditions

Hazardous decomposition products: See Section 2

Hazardous polymerization: None known

SECTION 6: HEALTH HAZARD ASSESSMENT (SMOKE)

General: Superior Smoke can be used without hazard if applied as directed. Smoke drills with full dress including self-contained breathing apparatus are rigorous tests of respiratory protection equipment and confirm operational competence. Lack of irritation is proof of adequate protection. If protection is not adequate, some irritation may occur. Two major components in the initial undiluted smoke are zinc chloride and water condensate. The main effects of the smoke are irritation of the throat, an awareness of an odd odor, and the appearance of smoke. These effects act as a warning and are desirable to prevent voluntary overexposure. Individuals should be urged not to accept exposures that cause minor irritation, but to leave the area.

Ingestion: Not a significant route of exposure.

Eye Contact: Acute exposure is not likely to induce eye irritation.

Skin Absorption: Not a significant route of exposure.

Inhalation: Acute exposure can cause irritation of the respiratory tract and mucous membranes. Irritation is a warning property of smoke materials; in itself irritation is not usually regarded as a toxic effect unless it is sufficient to cause inflammation and then inflammation, not irritation, is the toxic effect.

Effects of overexposure: Irritation of the respiratory passages; cough; nausea. Gross overexposure to dense smoke concentrations for periods of ten minutes or more could result in throat irritation and mucous membrane congestion requiring medical treatment. Coughs, chills, fever and pulmonary edema can result from overwhelming exposure. Increasingly severe overexposure is likely to result in increasingly severe irritation and inflammation to all mucous membranes contacted by the smoke with most severe effects usually appearing in the respiratory tract.

Emergency and First Aid Procedures: Remove victim to fresh air. If breathing is difficult, get medical attention.

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SECTION 7: DISPOSAL METH

(SMOKE): Ventilate area: Use local exhaust to keep exposure to a minimum. The length of exposure could be reduced further by opening doors and windows. Push/pull ventilation will speed smoke evacuation.

(SOLID PRODUCT): Disposal Method: Dispose in chemical disposal area in a manner that complies with local, state and federal regulations.

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