MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT INFORMATION

Product identifier Chemical Name

Superior™ Smoke Screening Smoke

Product Use

Superior[™] Smoke for air flow studies

Manufacturer's information

SUPERIOR SIGNAL COMPANY, INC.

PO Box 96

Spotswood, NJ 08884 USA

Emergency Phone # (732) 251-0800 (732) 251-9442

SECTION 2: PRODUCT INGREDIENTS (SMOKE)

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

TLV

PEL

8-hour time weighted average

Hydrated Zinc Chloride

1 mg/m³

1 mg/m³

Water Condensate

Carbon Monoxide

55 mg/m³ 55 mg/m³

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

Concentrations of the various smoke components depend entirely on the size of solid(s) burned, volume of the space and ventilation of the space. They are not independently predictable or knowable.

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

Superior™ #1A

4.000 cu. ft.:

113 m³

Superior™ #2B

8,000 cu. ft.:

227 m³

Superior™ #3C

40,000 cu. ft.:

1133 m³

Superior™ #W3C

40,000 cu. ft.:

1133 m³

SECTION 3: PHYSICAL DATA (SMOKE)

Boiling Point:

Not Applicable

Vapor Pressure:

Not Applicable

Vapor Density:

Not Applicable

Solubility in Water: pH:

Soluble 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): Normal fire fighting protective equipment: self-contained breathing apparatus and full protective clothing.

(SMOKE/SOLID PRODUCT): Unusual fire and explosion hazards: None Known

SECTION 5: REACTIVITY DATA (SOLID PRODUCT)

Stability: Stable under normal conditions

Hazardous decomposition products: See section 2

Hazardous polymerization: None Known

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SECTION 6: HEALTH HAZARD ASSESSMENT (SMOKE)

General: Superior™ Smoke can be used without hazard if applied as directed. The main effects of the smoke are some minimal 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 and ventilate well to dissipate the smoke.

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. In itself irritation is not usually regarded as a toxic effect unless it is sufficient to cause inflammation and then inflam-

mation, 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.

SECTION 7: EMERGENCY AND FIRST AID PROCEDURES

Remove victim to fresh air. If breathing is difficult, get medical attention.

SECTION 8: TOXICOLOGICAL PROPERTIES (SMOKE)

Carcinogen listed by: IARC (No) NTP (No) OSHA (No) OTHER (No)

SECTION 9: DISPOSAL METHOD

SMOKE): Ventilate area: Use local exhaust to keep exposure to a minimum. The duration of smoke would be short and the length of exposure could be reduced further by opening doors and windows for a few minutes, if and when the smoke appears.

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

The information herein is given in good faith, but no warranty, expressed or implied, is made.

SECTION 10: PREPARATION OF THE MSDS

Prepared by:

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October 13, 2000

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