

# MATERIAL SAFETY DATA SHEET (MSDS)



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For the following products:  
#10-030, #10-060, #10-180, and  
#10-182 White Smoke Candles  
#10-200 Standard Smoke Grenade  
#10-210 Professional Smoke Grenade

## SECTION I: MATERIAL IDENTIFICATION

**Material Name:** *Safe-Vue*<sup>TM</sup> Smoke Candles & Grenades    **UN Number:** none  
**Chemical Family:** Screening Smoke    **CAS Registry Number:** none  
**Trade Name:** *Safe-Vue*<sup>TM</sup> Smoke for air flow studies.

## SECTION II: INGREDIENTS AND HAZARDS (SMOKE)

Component	Amount	Hazard Data
Hydrated Zinc Chloride	TLV 1 mg/m <sup>3</sup>	8-hour, time weighted averages  Neither TLV nor PEL is applicable because product is intended for use in short term tests.
Water Condensate	PEL 1 mg m <sup>3</sup>	
Carbon Monoxide	-	
All other ingredients are present in negligible amounts and/or are non-hazardous.	55 mg/m <sup>3</sup> 55 mg/m <sup>3</sup>	

## SECTION III: PHYSICAL DATA (SMOKE)

**Boiling Point:** n/a    **pH:** No Data  
**Vapor Pressure:** n/a  
**Vapor Density:** n/a  
**Water Solubility at 20°C:** Soluble  
  
**Appearance and Odor:** Gray to white with an odor of burning paper.

## SECTION IV: FIRE AND EXPLOSION DATA

**Flash Point and Method (Smoke):** None  
**Autoignition Temp. (Smoke):** n/a  
**Flammability Limits in Air (Smoke):** n/a  
**Extinguishing Media (Solid Product):** Use media suitable for surrounding fire.  
**Special Fire Fighting Procedures (Smoke and Solid Product):** Self-contained breathing apparatus and full protective clothing.  
**Unusual Fire and Explosion Hazards:** None known.

## SECTION V: REACTIVITY DATA

**Stable:** Yes, under normal conditions.  
**Hazardous Decomposition Products:** See section II.  
**Polymerization:** None known.

## SECTION VI: HEALTH HAZARD INFORMATION

*Safe-Vue*<sup>TM</sup> white 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. Persons with respiratory ailments must never be exposed to any smoke. **Warning:** the #10-200 and #10-210 Smoke Grenades generate huge volumes of white smoke that would quickly accumulate to concentrations hazardous in confined spaces. Never use these items in an interior or enclosed space.

**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 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.

**FIRST AID:** Remove to fresh air. If breathing is difficult, get medical attention.

## SECTION VII: SPILL, LEAK AND DISPOSAL PROCEDURES

**(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 smoke appears.

**(Solid Product):** Dispose in chemical disposal area in a manner that complies with local, state and federal regulations.

## SECTION VIII: SPECIAL PROTECTION INFORMATION

**Respiratory Protection:** See section IV.

**Ventilation:** Use product in a well-ventilated area.

**Protective Gloves:**

**Other Protective Equipment:** Use self-contained breathing apparatus and full protective clothing when treating spills or fighting fires.

## SECTION IX: SPECIAL PRECAUTIONS AND COMMENTS

Store in a cool, dry place. Keep product out of the reach of children.

Use only in a well-ventilated place.

Do not use or store around food or food products. Before eating, drinking or smoking, hands and face must be thoroughly washed.

Product should be used only by those familiar with all safety documentation.

This MSDS is provided as a guideline for the use of our products only. E. Vernon Hill, Inc. disclaims responsibility for damage or injury resulting from the improper use of these products. Contact E. Vernon Hill, Inc. for a "Product Information Sheet."

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