

ROCKET.ca® SMOKE SIGNALS

Imported by: Rocket Fireworks Inc

Product Names: Tactical Smoke Grenade (TSG), Battlefield Smoke Grenade (BFG), Skydiver Smoke Signal

- Rocket.ca® Sport Smoke has a particle size of 10^{-4} to 10^{-6} centimeters in diameter; however, thirty seconds after it has been generated, the particle size statistical distribution does not conform to the normal bell-shaped curve. This phenomenon is caused by the smoke being a mist rather than solids suspended in air.
- Rocket.ca® Sport Smoke is not a true smoke, but contains a large percentage of atmospheric moisture that provides high visual obscurity at low concentrations. The toxicity of the materials must be presented relative to the application and brief exposure time. Smoke normally found in the workplace is a substance to be controlled by occupational standards. These standards are recommendations for eight-hour repetitious exposures that do not relate to smoke developed for the intended use of these products.
- These products are intended for Adult outdoor use only, where any exposure to the smoke would be brief and incidental. All smoke can be irritating to the breathing passages and persons with respiratory ailments should avoid exposure to any smoke. We recommend the use of self-contained breathing apparatus for dense concentrations or prolonged lighter concentrations. It is the user's responsibility to deploy these products in a safe and responsible manner.
- The ignition system is provided by a pull-wire igniter that functions similar to a match and is not a violent military type bouchon. Care should be taken not to cover ends or smoke exit holes during or after activation. All products become hot after activation, and should not be held.
- Rocket.ca® Sport Smoke products contain no rapid oxidizing ingredients such as chlorates, perchlorates, nitrates or sulfates. Although these products are not pyrotechnics, they can be a source of ignition, and should not be used in the presence of flammable gas, vapor, or liquids.
- Direct/close contact with any flammable material can result in ignition under some conditions, so proper precautions should be observed, especially when using products in dry field conditions.
- Rocket.ca® Sport Smoke products are not explosive, and have no explosive ingredients. Products with pull-wire igniters are shipped as 1.4G explosives because the pull-wire igniter is classified as an explosive due to a very small amount of a match-like substance.

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT IDENTIFICATION

Product identifier : Rocket.ca® Sport Smoke

Chemical Name: Screening Smoke

Trade Names: Tactical Smoke Grenade (TSG), Battlefield Smoke Grenade (BFG), Skydiver Smoke Signal

Product Use: Screening / Signaling Smoke – for Adult outdoor use only

Importer's information: Rocket Fireworks Inc. 14 Advance Rd. Etobicoke, ON M8Z 2T4

Emergency Phone #: (416) 456-5057 / (416) 450-0152

SECTION 2: PRODUCT INGREDIENTS (SMOKE)

Neither TLV nor PEL applicable because product is intended for incidental short term exposure only.

TLV PEL 8-hour time weighted

Hydrated Zinc Chloride 1 mg/m³ 1 mg/m³ average

Water Condensate - -

Carbon Monoxide 55 mg/m³ 55 mg/m³

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

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

Tactical Smoke Grenade (TSG): 10,000 ft³ / 283 m³

Battlefield Smoke Grenade (BFG): 70,000 ft³ / 1,982 m³

Skydiver Smoke Signal: 30,000 ft³ / 849 m³

SECTION 3: PHYSICAL DATA (SMOKE)

Boiling Point: N/A

Vapor Pressure: N/A

Vapor Density: N/A

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: N/A

Flammable limits in air: N/A

(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.

Unusual fire and explosion hazards: None Known

RS/1

MATERIAL SAFETY DATA SHEET (continued)

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:** Rocket.ca® Sport Smoke can be used without hazard if applied as directed. 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. Rocket.ca Smoke products generate huge volumes of white smoke that could quickly accumulate to hazardous concentrations in confined spaces.

- 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.

SECTION 7: DISPOSAL METHOD

(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.

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

RS/1

Review date: 1/1/2010