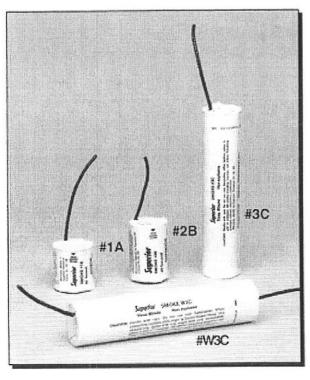
# Superior smoke for

Leak Detection Studying Air Flow Photography

## Inexpensive smoke that's efficient, effective, easy to use!

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The Superior method of generating smoke by chemical reaction eliminates costly equipment and time consuming operations in pinpointing leaks. Smoke tests will effectively and inexpensively reveal leaks and other faults in heating and air conditioning duct work, furnaces, tanks, piping and sewerage/waste collection systems. It is also ideal for observing air flow patterns, evaluating exhaust systems, photography, dislodging animals and triggering fire-smoke alarms. Superior Smoke varies in color from white to gray depending upon density and lighting. Superior Smoke items contain no explosive materials and offer a T.O.P. (total obscuring power) of 2100. T.O.P. is the scientific method of determining the quantity of smoke generated by a given unit of smoke composition. By comparison crude oil has a T.O.P. of 200. See below and reverse page for details concerning specific uses.



- The Superior Smoke #1A generates 4000 cubic feet of smoke in thirty seconds. Size 1 1/2" x 1 1/2". Mailable. Shipping weight 2 lbs. per dozen.
- The Superior Smoke #2B generates 8000 cubic feet of smoke in one minute. Size 1 1/2" x 2". Mailable. Shipping weight 2 lbs. per dozen.
- The Superior Smoke #3C generates a big 40,000 cubic feet of smoke in approximately two to three minutes. Size 1 1/2" x 5". Mailable. Shipping weight 5 lbs. per dozen.
- The Superior Smoke #W3C generates approximately 40,000 cubic feet of white to gray smoke in two to three minutes; double wicked with quick clips furnished for multiple units extending smoke generating time. Size 1 1/2" x 5". Mailable. Shipping weight 5 lbs. per dozen.



The Superior Smoke Grenade is engineered for use when an almost instantaneous and exceptionally large volume of smoke is required. Generates a gigantic 115,000 cubic feet of smoke while burning from two to three minutes. Our Professional Smoke Grenade generates 130,000 cubic feet of smoke. Both are weather proofed and solidly constructed with a dependable built-in ignitor. Designed for rugged dependability and exceptional performance, they are warranted for three years. Not mailable. Weight 1lb. each. Size 2" x 5", (Professional Grenade 2.5" x 5").



#### Sealpac Containers

Superior Smoke #'s 1A, 2B, 3C, and W3C can also be packaged in these unique resealable containers which protect them from exceptionally hot and humid climates.

### **Applications**

With a T.O.P. of 2100, Superior Smoke is visible at low concentration. Actual applications are limited only by the user's imagination and ingenuity. Please feel free to consult us on any application or problems involving smoke.

DETECTING LEAKS: Highly visible Superior Smoke readily blends with air and gases, simplifying the observation of air flow patterns or quickly pinpointing leaks. Although the smoke generator itself is hot, the smoke is cool and does not support combustion. Leaks invisible without smoke can instantly be seen after smoke is added to air or gases. The odor of escaping smoke also assists in pinpointing leaks. Superior Smoke can be dissipated without visible residue or lingering odors by ventilation. Actual applications are too many and varied for specific suggestions. However, generally speaking, for detecting leaks in small or medium size areas, such as furnaces, tanks, etc., use sufficient smoke to fill an area 2-3 times larger than the area to be tested. Ignite the Superior Smoke item or items and insert through any convenient opening where it can be safely placed. Close the opening and in seconds smoke will be seen pinpointing all leaks. Mark the leak for later repairs. A 50% reduction may be made in the quantity of smoke if low air pressure is used. Too much air pressure in small tubing or small or medium size areas may result in a residue due to the smoke particles combining under pressure. Any residue is easily removed with soap and water.

The tedious and time consuming soaping of piping systems and duct work for leaks can be eliminated by inducing sufficient Superior Smoke to fill an area approximately twice as large as the area being tested. Usually there are openings large enough to admit a pail or similar non-flammable container with ignited smoke items and the opening closed, before inducing the air. Air pressure up to 29 inches on the water gauge may be used in testing large systems, such as power generating equipment, which are constructed to withstand high pressures.

In instances where a small or sustained volume of smoke is required or in the presence of volatile gases and materials, first discharge the smoke into a container, such as a 55 gallon drum equipped with a damper or valve to control the smoke discharge. Superior Smoke will stay in suspension from 10-15 minutes and may be discharged at will. For continuous discharge, keep recharging the container with smoke. Low air pressure will assist in controlling movement of smoke.

Necessity of repairing or replacing leaky or dangerous heating systems is readily demonstrated by placing a Superior Smpke #1A in the firebox and closing the door.

STUDYING AIR FLOW: Superior Smoke mixed with air or gases simplifies the observation of flow patterns, in all types of apparatus or wind tunnels, indoor and outdoor areas to mention a few applications. The initial selection of the specific Superior Smoke product is based on the volume of the test area. Generally, one part of smoke to two or more parts of air volume provides satisfactory results. Fleating and air conditioning units can be properly balanced by observing the discharge from grills or registers and adjusting until satisfactory. Remove filters or baffles before discharging smoke into the intake fan. Superior Smoke #1A and #2B are recommended for checking relatively small capacity air flow units such as exhaust fans or models.

**PHOTOGRAPHY:** Superior Smoke photographs from white to dark gray, depending upon the concentration and intensity of light striking it. Color effects can be obtained by photographing colored lights through thin concentrations. A little experimenting can produce some unusual and dramatic effects.

**DISLODGING ANIMALS:** High concentrations of Superior Smoke provides an easy method of driving animals from burrows, tunnels and other inaccessible places. Superior Smoke will also disclose openings leading to underground passages.

#### WARRANTY:

Superior warrants that this product conforms to the Product Description contained in this literature. Superior makes no other warranty, whether expressed or implied, including warranties of merchantability or of fitness for a particular purpose or application. No statements or recommendations contained herein are to be construed as inducements to infringe any relevant patent, now or hereafter in existence. Superior neither assumes nor authorizes any representatives or other person to assume for it any obligation of hability other than such as is expressly set forth herein. <u>Under no circumstances shall Superior be liable for incidental, consequential or other damages from any alleged negligence, breach of warranty, strict liability or any other theory, arising out of the use or handling of this product.</u>

CAUTION: All smoke including Superior can irritate breathing passages without respiratory protection.