



**Operating Instructions For
Ozone Badge
(Part Number: 382004)**

Introduction

Ozone is a bluish gas with a pleasant, characteristic odor in concentrations of less than 2 ppm. In higher concentrations, the odor is pungent and irritating. Ozone is a severe irritant to the eyes and the mucous membranes. Long-term exposures will cause pulmonary edema (abnormal fluid buildup in the lungs) and chronic respiratory disease. OSHA and NIOSH exposure limit for ozone is 0.1 ppm (TWA).

Ozone is used as a disinfectant for air and water. It is also used to bleach waxes, textiles and oils.

Principle of Operation

The SafeAir ozone badge is a monitoring system designed to indicate the presence of ozone at concentrations below the permissible exposure limit. The SafeAir ozone badge detects the presence of ozone by forming a color change from blue to white in the shape of an exclamation mark inside the triangle. This indication is produced by a color-forming reaction that occurs when ozone reacts with a flat indicator layer.

Physical Specifications:

Dimensions	74 mm x 41 mm x 1 mm
Weight	1.5 g
Refrigerated shelf life	1 year
Color change	blue to white

Sampling Parameters:

Exposure level	0.05 ppm·hr
Minimum detectable limit (8 hours)	0.006 ppm
Maximum recommended sampling time	48 hours
Minimum recommended sampling time	15 minutes
Relative humidity range	30% - 80%
Face velocity range	10 – 150 cm/sec
Temperature range	15°C - 32°C (60°F - 91°F)
Light effect – UV (direct sunlight)	not recommended
Light effect – visible	no effect
Color stability	4 weeks
Known Interferences	hydrogen peroxide, and nitrogen dioxide up to 1 ppm

Operating Instructions

1. Allow the badge to warm to room temperature prior to removing the badge from its protective pouch.
2. Remove activation label before monitoring.
3. For personnel monitoring, attach the badge near the user's breathing zone (i.e. the collar) with the front side exposed to the surrounding atmosphere.
4. For area monitoring, attach the badge to a stand and mount in a centralized area with the front side exposed to the surrounding atmosphere.
5. The exclamation mark appears within the triangle when ozone is present.

WARRANTY EXCLUSIONS AND LIMITATION OF LIABILITY

IF THE USER DOES NOT ACCEPT THE FOLLOWING TERMS, THE USER SHOULD NOT USE THE SAFEAIR BADGES.

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Warning: Keep out of the reach of children. If ingested seek medical attention immediately.



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