



Operating Instructions
Formaldehyde Monitor
(Part Number: 382011)

Introduction

Formaldehyde is a colorless gas with a pungent, suffocating odor. It is a potent irritant to eyes, nose and throat. The most common effects of low level formaldehyde inhalation are eye, nose and upper respiratory irritation. Chronic symptoms of exposure are itching eyes, dry and sore throat, and possible difficulty in sleeping and unusual thirst after awakening. OSHA PEL (permissible exposure limit) for formaldehyde is 0.75 ppm (TWA). NIOSH REL(recommended exposure limit) is 0.016 ppm (TWA). NIOSH also recommends that formaldehyde be handled as a potential occupational carcinogen in the workplace.

Formaldehyde workplace exposure occurs because of its extensive use as an industrial chemical in the manufacturing of resins for adhesives, plastics, coatings and fabrics. Additional exposure to formaldehyde emissions comes from its use as a fumigant and sterilant. The major source of atmospheric discharge of formaldehyde is from combustion processes, specifically from the photo-oxidation of hydrocarbons in auto emissions.

Principle of Operation

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

Physical Specifications:

Dimensions	(74 ± 1 mm) x (41 ± 1 mm) x (1 mm)
Weight	1.5 g
Refrigerated shelf life	1 year
Color change	yellowish-brown to dark brown

Sampling Parameters:

Exposure level	0.2 ppm-hr
Minimum detectable limit (8 hours)	0.025 ppm
Maximum recommended sampling time	16 hours
Minimum recommended sampling time	15 minutes
Relative humidity range	20% - 80%
Face velocity range	10 – 150 cm/sec
Temperature range	59°F - 95°F
Light effect – UV (direct sunlight)	no effect
Light effect – visible	no effect
Color stability	18 hours
Known Interferences	acrolein, cigarette smoke

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.

WARRANTY EXCLUSIONS AND LIMITATION OF LIABILITY

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

Seller warrants that, for the lesser of one (1) year or the shelf-life provided on the Seller's product, its packaging or its literature, its products shall conform to the description of such products as provided on the Seller's product, its packaging or its literature. THIS WARRANTY IS EXCLUSIVE, AND SELLER MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. Seller's warranties made in connection with this sale shall not be effective if Seller has determined, in its sole discretion, that Buyer has misused the products in any manner, has failed to use the products in accordance with safe industry standards and practices, or has failed to use the products in accordance with Seller's written operating instructions, or other instructions furnished by Seller to Buyer.

Seller's sole and exclusive liability and Buyer's exclusive remedy with respect to products to Seller's satisfaction to be defective or nonconforming shall be replacement of such products without charge or refund of the purchase price, in Seller's sole discretion, upon the return of such products in accordance with Seller's instructions. All claims must be brought within one (1) year of shipment, regardless of their nature.

SELLER SHALL NOT IN ANY EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND RESULTING FROM ANY USE OR FAILURE OF THE PRODUCTS, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE INCLUDING, WITHOUT LIMITATION, LIABILITY FOR LOSS OF USE, LOSS OF WORK IN PROGRESS, DOWN TIME, LOSS OF REVENUE OR PROFITS, FAILURE TO REALIZE SAVINGS, LOSS OF PRODUCTS OF BUYER OR OTHER USE OF ANY LIABILITY OF BUYER TO A THIRD PARTY ON ACCOUNT OF SUCH LOSS, OR FOR ANY LABOR OR ANY OTHER EXPENSE, DAMAGE OR LOSS OCCASIONED BY SUCH PRODUCT INCLUDING PERSONAL INJURY OR PROPERTY DAMAGE UNLESS SUCH PERSONAL INJURY OR PROPERTY DAMAGE IS CAUSED BY SELLER'S GROSS NEGLIGENCE.

Warning: Keep out of reach of children, if ingested seek medical attention immediately.



www.morphtec.com
©2017, Morphix Technologies
All rights reserved
Publication Number: 01-382011A.8-1218
US Patent Number: 6,284,198