Product Cleaning Guidance
Portable Gas Detection Instruments

Brief Issue Date: April 10, 2020

Based on guidance from the United States Centers for Disease Control and Prevention (CDC) regarding COVID-19, the following cleaning methods may be used for all portable gas detectors that have the ALTAIR® branding, including the 4XR, 5X, 5X PID, 4X, 4XM, 2X, and single gas varieties:

**Routine Cleaning**
Before using a disinfectant, conduct routine cleaning in accordance with the user manual to remove dirt and other contaminants.

**Disinfection Guidance**
For COVID-19, CDC recommends the use of cleaning products with EPA-approved emerging viral pathogens claims. CDC refers to List N on the EPA website (https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2) for EPA-registered disinfectants that meet this guidance.

1. MSA Confidence Plus® 2 cleaner (MSA part number 10009971) is included on List N based on its EPA Reg. No., which begins with 47371-130. The active ingredients in Confidence Plus 2 are quaternary ammonium compounds, which are compatible with MSA’s products.

2. Other disinfectants on EPA’s List N may be used if they meet the following criteria:
   a. Active ingredient of only Hydrogen Peroxide OR only Quaternary Ammonium
   b. Do not contain alcohol at a concentration greater than 0.1% by weight
   c. Do not contain sodium hypochlorite at a concentration greater than 7.4% as an active ingredient

3. If options 1 or 2 are not readily available in your market, you can use a 3% solution of Hydrogen Peroxide in water with 5 minutes of contact time on the surfaces.

4. If no other cleaning products are available that meet the above criteria, diluted household bleach may be used as a temporary measure until an option from the above list is available. CDC recommends preparing a bleach solution by mixing the following:
   - 5 tablespoons (1/3rd cup) bleach per gallon of water
   - 4 teaspoons bleach per quart of water

Follow the manufacturer’s instructions for application and proper ventilation, ensuring a contact time of at least 1 minute. Check to ensure the product is not past its expiration date. Never mix household bleach with ammonia or any other cleanser.

The recommended concentration is 2% bleach in water. This is equivalent to 0.15% sodium hypochlorite maximum. To avoid damaging the detectors, do not exceed these cited concentrations.

It is important to follow the cleaning product manufacturer’s instructions, including contact time to achieve disinfection. EPA List N also provides guidance on contact time.

After using disinfectants, it is recommended that you wipe down the product with water to remove any residue that may impact the product over time.

**Caution Regarding Products that Contain Alcohol, Hydrogen Peroxide, or Sodium Hypochlorite**
Please note that for ALTAIR portable gas detectors, it is crucial that you do not use cleaners with chemicals that might damage the sensor performance or detector housings. This includes any disinfecting agents that contain alcohol at a concentration of greater than 0.1% by weight, or sodium hypochlorite at a concentration greater than 0.15%. Users are cautioned that repeated longer-term use of hydrogen peroxide or sodium hypochlorite solutions may degrade some components of MSA products. Users must maintain stringent pre-use inspection procedures as outlined in the user manual to ensure the continued integrity of the products following repeated use of these solutions.

**Please Note**
MSA relies on the expertise of CDC, EPA, and the other cited authorities, and has not evaluated the effectiveness of these cleaning agents against COVID-19. To the extent the guidance in this Bulletin may go beyond the information in your user manual, it applies only in the context of the COVID-19 public health emergency.

Personal protective equipment (PPE) provides limited protection and may help to reduce exposure to biological agents and the risk of viral infection but IMPORTANTLY IT DOES NOT ELIMINATE the risk of exposure, infection, illness, or death, including with respect to SARS-CoV-2/COVID-19. MSA does not warrant the efficacy of any of its PPE products, or of the information or products in this Bulletin, in preventing the spread and/or contraction of coronaviruses. It is your responsibility to determine what cleaning products and methods are suitable for your intended use and consistent with guidelines from your employer and the relevant health authorities. MSA disclaims liability for any loss or damage arising from any information contained herein, whether direct, indirect, special, incidental or consequential, regardless of the legal or equitable theory asserted, including warranty, contract, negligence or strict liability.
The situation with COVID-19 is rapidly evolving. As such, this guidance may be updated as circumstances warrant. Please visit MSA COVID-19 Resource Center (https://us.msasafety.com/coronavirus) to ensure that you have the latest version. Furthermore, organizations like the CDC are providing updated information and guidance as it becomes available. For the most-up-to-date information on COVID-19, you should regularly consult guidance being published by national and international organizations, such as the CDC, the National Institutes of Health (NIH), the World Health Organization (WHO), the European Centre for Disease Prevention and Control (ECDC), and/or your local health authority. Guidance on COVID-19, including information on actions needed to prevent, control, and manage contact with the virus, is available at the following websites:

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<td>WHO</td>
<td><a href="https://www.who.int/health-topics/coronavirus">https://www.who.int/health-topics/coronavirus</a></td>
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Note: This Bulletin contains only a general description of the products shown. While product uses and performance capabilities are generally described, the products shall not, under any circumstances, be used by untrained or unqualified individuals. The products shall not be used until the product instructions/user manual, which contains detailed information concerning the proper use and care of the products, including any warnings or cautions, have been thoroughly read and understood. Specifications are subject to change without prior notice.

MSA operates in over 40 countries worldwide. To find an MSA office near you, please visit MSAsafety.com/offices.