SIRCHIE
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TECHNICAL INFORMATION

Dual Filter Multi-Purpose Half Mask Regulator

Catalog No. PU0010

INTRODUCTION

The SIRCHIE No. PU0010 is a NIOSH-approved, dual filter half-mask respirator intended for use as an *anti-putrefaction mask.* Designed for applications that do not require full face protection, this mask combines a latex-free silicone seal with a formed plastic shell outer body. The soft silicone conforms to the shape of the nose. The combination of soft silicone and hard plastic ensures a comfortable, leak-resistant fit to a typically hard-to-fit area. This compact and lightweight unit is excellent for use at the crime scene where decaying matter and hazardous vapors may be present.

CAUTIONS

For correct and effective use of the respiratory system and to avoid hazards, it is essential to read and understand the following recommendations and to act accordingly:

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- Any use of the half mask requires full understanding and strict observation of these instructions.
- The half mask may only be used for the purposes specified here.
- To protect your health, respiratory protection must be carefully selected to provide for the known and anticipated protection that may be needed. ALWAYS CONSULT your Industrial Hygienist, Safety Engineer, Medical Department or Supervisor to be sure that you are using the proper respirator for the protection needed.
- Properly selected and used, air-purifying respirators reduce the level of exposure to below hazardous levels.
- Air-purifying respirators do not supply oxygen and MUST NOT BE USED in atmospheres in which oxygen concentration is below that as specified by OSHA and MSHA/NIOSH regulations, and on the approval label.
- DO NOT USE these respirators for respiratory protection in any atmosphere that is or may become immediately dangerous to life or health (IDLH) or under conditions that pose or may pose an immediate threat to life or health, or in conditions that pose or may pose an immediate threat to severe exposure to air contaminants that are likely to have delayed adverse effects on life or health.
- DO NOT USE these respirators in any contaminated or oxygen deficient atmosphere from which the wearer cannot escape without being exposed to a respiratory hazard that poses a threat of immediate or delayed adverse effect on the wearer before he or she can escape to uncontaminated air.
- This respirator MUST NOT BE USED in any way that is in disagreement with this instruction manual or any regulation. Read and understand the instructions, limitations and warnings in this manual.
- Respirator selection should be based upon full knowledge of the following: 1. Contaminants and their maximum concentration in the ambient atmosphere in which protection is needed; 2. That the ambient atmosphere contains sufficient oxygen to support life. *(See OSHA and MSHA/NIOSH regulations and approval labels.)*
- The exposure limits specified in the MSHA/NIOSH approval labels and regulations, OSHA regulations, the regulations of other government agencies, and the most recent authoritative exposure limit recommendations are to be observed for the protection of the respirator wearer.
- For protection against specific contaminants, this respirator MUST BE USED with the proper air-purifying cartridge (chemical cartridges, filter cartridges or combination cartridges).
- Always read the cartridge labels prior to use and make certain that the cartridges will provide the required protection, and that the cartridge is approved for use with this facepiece. Respirators equipped with filter cartridges only MUST NOT BE USED for protection against vapors or gases. Respirators equipped with chemical cartridges only MUST NOT

BE USED for protection against airborne particles. The useful service life of a cartridge will vary with the concentration and nature of the contaminant(s) and the activity of the respirator wearer. The cartridges must be replaced when increased breathing resistance, or the odor or taste of a contaminant (or any similar signal) is detected by the wearer. Replacement shall be in accordance with this Instruction Manual.

- Employers covered by a regulatory agency other than OSHA must review the specific substance standards to determine which respirators are permitted by that regulatory agency. Such regulations may include respiratory protection requirements for specific concentration levels of the contaminant. If no standard specifically addresses the respirators that can be used for protection against the contaminants found in the workplace, determine the exposure limit established by the applicable regulatory standards or the recommenced exposure limit (REL) established by NIOSH. NIOSH Respirator Decision Logic [DHHS (NIOSH) Publication No. 87-108] may be used to determine which classes or respirators can provide adequate protection. Where chemical cartridge respirators can be used, calculate the maximum use concentrations based on the applicable exposure limits. For example, OSHA and MSHA currently accept an assigned protection factor of 10 for half mask respirators. Therefore, the maximum use concentrations for half mask chemical cartridge respirators should never exceed 10 times the exposure limit (e.g., OSHA or MSHA exposure limits, NIOSH recommended exposure limit).
- These respirators MUST NOT BE USED in any manner contrary to the recommendations contained on the package label, and in the Material Safety Data Sheet (MSDS) or similar document available from the manufacturer or supplier of the substance being used.
- These respirators MUST NOT BE USED for protection in atmospheres that contain air contaminants that may penetrate, irritate or injure the skin, unless suitable additional protective equipment is also used.
- These respirators must be properly fitted to the individual to obtain effective respiratory protection. These respirators may not provide a satisfactory face seal for individuals who have certain physical characteristics such as facial hair or deformities. Unsatisfactory face seal may result in leakage that dangerously reduces respiratory protection.
- These respirators are designed to be used only by TRAINED, QUALIFIED PERSONNEL.
- These respirators are approved by MSHA/NIOSH for protection against the inhalation of asbestos containing dust and mists when fitted with high efficiency filter (HEPA) cartridges. Respirators equipped with HEPA or combination cartridges can be used only in low concentrations of asbestos under acceptable conditions. To reduce the amount of asbestos being inhaled to the level specified by OSHA in 29CFR 1910.1001.
- If you sense one of the following potential danger signals, leave the hazardous area immediately, return to fresh air, and

seek any necessary assistance: 1. Breathing becomes difficult; 2. You become dizzy or feel nauseous; 3. You smell or taste contaminant(s); 4. Have other noticeable physical effect(s).

- The national regulations and recommendations must be observed when using these respirators.
- Please observe the instructions for use that are packaged in each cartridge container.

PREREQUISITES FOR USE

- This device does not supply oxygen, and must only be used in adequately ventilated areas containing at least 17% oxygen by volume. Filter apparatuses should not be used in confined spaces (i.e. unventilated vessels, mines, sewers, etc.).
- The type and concentration of the contaminant must be known.
- The user of the protective filter device must have been duly instructed as to its use, and must be fit and able to use the device.
- Used filters and/or cartridges must be disposed of in accordance with local regulations for the disposal of dangerous waste.
- Do not use any respiratory filters for which the expiration date has been exceeded (specified on the filter).
- When changing filters in a dual-filter mask, both filters must always be replaced at the same time.
- Dual-filter masks must always be fitted with filters of the same type and class.

NOTE: *Beards or facial irregularities may impair the essential tight fit of the mask and may result in over exposure to the air contaminant.*

DESCRIPTION/INTENDED USE

Together, the half mask and two respiratory filters form a protective filter device against breathable particles and against toxic gases and vapors. Use of the filter unit depends on the choice of respiratory filter. Service

temperature: -22° to 140°F (-30° to 60°C). NOTE: Two respiratory filters of the same type from a single package (pair) must always be used (e.g. PU0011).

PROCEDURE

Fitting The Respiratory Filters

Fit two respiratory filters on the facepiece and lock the bayonet catch by turning the respiratory filters downwards (as indicated by the arrows shown on the filter connection point, Fig. 1) until a stop is felt.

NOTE: *Turn the respiratory filters in the opposite direction to release them.*

FIGURE 1

FIGURE 2

Assembly and Testing

Visual Examination of Inhalation Valve Disk—Unbutton the inhalation valve disk and examine it. Place the disk of the inhalation valve behind the stub. The disk should rest evenly on the sealing area inside the mask body (Fig. 2).

Visual Examination of Exhalation Valve Disk—Remove facepiece from mask body. Hold the valve disk by the edge and draw it out. Examine the valve seat for dirt and damage, and wipe it clean with a disposable tissue if necessary. Press the examined valve disk into the valve seat until it engages. The disk should rest on the valve seat uniformly and completely flat (Fig. 3).

FIGURE 3

FIGURE 4

FIGURE 5

FIGURE 6

FIGURE 7

Putting on The Half Mask

1. Draw the buckles on the head straps up to the end of the straps.
2. Connect the bottom straps behind your neck by means of the buckles (Fig. 4).
3. Hold the head straps with one hand while drawing the mask to your face with the other (Fig. 5).
4. Position the facepiece over mouth and nose.
5. Place the head straps over the back of the head with the straps above your ears (Fig. 6).
6. Pull the ends of the straps until the half mask rests tightly against your face (Fig. 7).
7. Tighten the top and bottom straps uniformly. If necessary, adjust the straps again until the half mask rests against your face tightly and comfortably.
8. The bottom straps can be released by means of the two hooks so that the half mask can be comfortably placed on your chest.

Test for Leaks Before Use (either)

Negative Pressure Test—Seal both respiratory filters with your hands and breathe in until a negative pres-

sure is created. Hold your breath for a moment. The negative pressure should be maintained. If not, adjust the straps of the mask.

Excess Pressure Test—Seal the exhalation valve of the half mask and breathe out firmly. The half mask must not lift off your face. If the exhaled air dissipates through the softbody, take off the half mask and tighten the straps.

NOTE: *The half mask may not fit correctly over a beard or drooping cheeks (danger of poisoning). The half mask must fit tightly and the respiratory filters must be fitted before entering the contaminated area.*

LIMITATIONS

Air purifying cartridge respirators and chin style gas mask respirators are prohibited for use in atmospheres immediately dangerous to life or health. The respirator is not for use in atmospheres containing <17% oxygen by volume.

Do not use the respirator for protection against substances with poor warning properties (smell, taste, nose, eye, or throat irritation) or those substances which generate high heats of reaction with the absorbent materials in the cartridge.

STORAGE, CARE AND MAINTENANCE

Care and Maintenance

Cleaning—Cleaning the mask immediately after use helps to prevent premature wear. Do not use any organic solvents, such as acetone, alcohol, naphtha, spirits, tricholoroethylene, etc. Clean all parts with a cloth and lukewarm water containing a universal cleaning agent. Rinse thoroughly under running water.

Disinfection—Insert all parts in a disinfectant bath that does not cause damage to rubber or plastic parts. Rinse thoroughly under running water.

Drying—Do not exceed a drying temperature of more than 140°F (60°C).

Note: *The half mask must be inspected and serviced by experts at regular intervals. The half mask may only be repaired by experts. Contact SIRCHIE®'s Customer Service for more information at (919) 554-2244.*

Storage

The PU0010 Dual Filter Half Mask Respirator has a maximum shelf life of 6 years as from the date of manufacture. During this period, the half mask can be used for up to 2 years.

The half mask must be stored in a dry, dust-free place without being deformed. Keep away from direct light and heat. ***Note:*** *Storage Temp. 5° to 77°F (-15° to 25°C).*


PERMISSIBLE CHEMICAL CARTRIDGE RESPIRATOR
FOR ORGANIC VAPORS, CHLORINE, HYDROGEN CHLORIDE AND SULFUR DIOXIDE

MSHA NIOSH

MINE SAFETY AND HEALTH ADMINISTRATION
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

APPROVAL NO. TC-14G-0247
ISSUED TO
NATIONAL DRAEGER, INC., PITTSBURGH, PA, USA

LIMITATIONS

Approved for respiratory protection against organic vapors, chlorine, hydrogen chloride and sulfur dioxide. Do not exceed maximum use concentrations established by regulatory standards. Do not wear for protection against organic vapors with poor warning properties or those that generate high heats of reaction.

Not for use in atmospheres immediately dangerous to life or health.

Not for use in atmospheres containing less than 19.5 percent oxygen by volume.

CAUTION

In making renewals or repairs, parts identical with those furnished by the manufacturer under the pertinent approval shall be maintained.

Follow the manufacturer's instructions for changing cartridges.

This respirator shall be selected, fitted, used and maintained in accordance with Mine Safety and Health Administration, Occupational Safety and Health Administration and other applicable regulations.

MSHA NIOSH APPROVAL TC-14G-0247
Issued to: National Draeger, Inc
7/31/02
For Organic Vapors, Chlorine, Hydrogen Chloride and Sulfur Dioxide

The approved assembly consists of the following National Draeger parts:
R53301 or R53302 Facepiece and 4062917 (TC-23C-1008) Cartridge

FILTER SPECIFICATIONS:

All filters tested in accordance with NIOSH final rule July 10, 1995: 42CFR84*

PU0011…Filter, Organic Vapor/Acid Gas: Prevents penetration of sulfur dioxide, chlorine, ammonia, carbon monoxide, hydrogen chloride and organic vapors (decomposition of animal/human tissue)

PU0012…Filter, Particulate/P100: Prevents penetration of isoamyl acetate/99.97% effective against particles of 0.3 microns or greater, DOP**

PU0013…Filter, Organic Vapor/P100: Prevents penetration of isoamyl acetate, organic vapors/99.97% effective against particles of 0.3 microns or greater, DOP**

NOTE: Tests for organic vapors utilizes carbon tetrachloride.

*NIOSH: National Institute for Occupational Safety and Health

**DOP: Dioctyl Phthalate, the most severe or degrading test aerosol known