

# 7401

**Premium Carbon Respirator**  
**Moulded Adjustable Maintenance Free Respirator with Comfort Exhalation Valve**

### Main Features:

The 7401 respirator is:  
 Adjustable,  
 Maintenance Free,  
 Ergonomically Designed for a Clear Field of Vision  
 Has a superior harness with wide straps ensuring wearer comfort  
 Has a exhalation valve for added user comfort.

### Specifications:

The 7401 respirator is approved to the following specification:

SANS 50149:2003  
 EN149:2001 FFP2

### Applications:

Base Metal Manufacture  
 Brick Manufacture  
 Laboratories  
 Powdered Additives  
 Pharmaceutical  
 Powdered Chemicals  
 Sawmills  
 Food Industry  
 Textile industry  
 Craftwork  
 Iron and steel industry  
 Mining  
 Underground civil engineering  
 Woodworking  
 Welding work  
 Cutting and casting of metals



### Quality

All respirators are manufactured in accordance with international standards and quality approvals.

GreenLine is ISO9001 accredited by TUV Rhineland Germany

### Usage:

Suitable to protect against low-to-average toxicity harmful materials in concentrations up to 12 X OEL

FFP2 respirators can provide protection against solid and liquid aerosols and smoke containing the following particulate materials such as:

Calcium carbonate / China clay / Cement / Cellulose / Sulphur / Cotton / Flour / Carbon / Ferrous metals / Hardwood / Glass fibres / Plastic / Vegetable oils/ Mineral oils / Quartz / Copper / Aluminium / Bacteria / Fungi & mycobacterium tuberculosis (T.B.)

Liquid or non-oil based particles from sprays that do not also emit vapours .

Metal fumes produced from welding, cutting and other operations involving heating of metals.

Carbon layer provides protection against nuisance levels of certain gases/vapours\*

### SABS Mark

Manufactured under SABS Mark scheme

If you cannot see the mark on the product, it is because it does not have a SABS mark scheme permit!

Don't be fooled by products claiming to be SABS "Approved" only products with the SABS Mark on them are authorised and approved to be stamped with logo



Permit Number:  
7152/10608

### Made in South Africa

- Designed To Suit Local Conditions
- Made by South Africans
- No Continuous Price Increases Due To Exchange Rate Fluctuations



### Homologation

The 7401 respirator is:



For further information or technical specifications contact us on  
 Tel: 086 1000 545 Email: [sales@greenline-sa.com](mailto:sales@greenline-sa.com) Web: [www.greenline-sa.com](http://www.greenline-sa.com)



## Retention of Vapours by Activated Carbon

Substance	Retention % (w/w)	<u>Prediction of Activated Carbon Adsorption Capacities</u>
Acetaldehyde	7	<p>Formula is a modified version of Dubinin/Radushkevich equation</p> $W_g = W_0 \cdot d_L \exp[-BP_e^{-1.8} R^{-2} T^{-2} (\ln(P/P_{sat}))^2]$ <p>Where <math>P_e = \frac{(nd^2 - 1) M_W}{(nd^2 + 2) d_L}</math></p> <p>And  <math>B = bW_0</math>  <math>b = 3.56 \times 10^{-5}</math>  <math>W_0 = [S_a / 2350]</math></p> <p><u>Legend</u>  <math>W_g</math> = Adsorption Capacity (g/g<sub>carbon</sub>)  <math>W_0</math> = Micropore Volume (cm<sup>3</sup>/g<sub>carbon</sub>)  <math>d_L</math> = Density of condensed liquid in micropores (liquid density)  <math>T</math> = Temperature (Kelvin)  <math>P/P_{sat}</math> = Partial vapour pressure relative to saturation  <math>R</math> = Ideal Gas Constant (1.987 – units are in calories <u>not</u> Joules)  <math>P_e</math> = Molar refraction  <math>nd</math> = Refractive index (at approximately 293K)  <math>M_W</math> = Adsorbate molecular weight  <math>S_a</math> = Surface area of Activated Carbon</p>
Acetic Acid	30	
Acetone	15	
Ammonia	Negligible	
Amyl Acetate	34	
Benzene	25	
Bromine (dry)	40	
Butyric Acid	35	
Carbon disulphide (disulfide)	15	
Carbon Tetrachloride	45	
Chloroform	40	
Diethyl Ketone	30	
Ethyl Alcohol	21	
Ethyl Mercaptan	23	
Formaldehyde	Negligible	
Heptane	23	
Hexane	16	
Hydrogen Sulphide (sulphide)	3	
Indole	25	
Iodine	40	
Iodoform	30	
Isopropyl Acetate	23	
Isopropyl Alcohol	26	
Menthol	20	
Methyl Ethyl Ketone (MEK)	25	
Naphthalene	30	
Nicotine	25	
Nitrobenzene	20	
Ozone	Decomposes	
Phenol	30	
Putrescine	25	
Pyridine	25	
Skatole	25	
Toluene	29	
Valeric Acid	35	
Water	0	
Xylene	34	
Body Odours	High	
Cooking Odours	High	
Sewer Odours	High	

### WARNINGS

**Do not use for respiratory protection against atmospheric contaminants concentrations which are unknown or immediately dangerous to life and health.**

- Leave the contaminated area immediately if:
  - a) Breathing becomes difficult.
  - b) Dizziness or other distress occurs.

- Discard and replace the respirator if it becomes damaged, breathing resistance becomes excessive or at the end of the shift.

- Never alter, modify or repair this device.

**These products do not protect against all gases/vapours, but offer relief from nuisance levels\* of certain gases/ vapours.**

\*Nuisance levels are exposure levels below the relevant national exposure standards

#### Usage Limitations

- Always be sure that the product is:
  - Suitable for the application;
  - Fitted correctly;
  - Worn during all periods of exposure;
  - Replaced when necessary.
- Proper selection, training, use and appropriate maintenance are essential in order for the product to help protect the wearer from certain airborne contaminants.
- Failure to follow all instructions on the use of these respiratory protection products and/or failure to properly wear the complete product during all periods of exposure may adversely affect the wearer's health, lead to severe or life threatening illness or permanent disability.
- For suitability and proper, use follow local regulations, refer to all information supplied and or contact your occupational hygienist, safety professional