

# ORGANIC VAPOR CARTRIDGE WITH FILTER KGC-5MC (Category S1)



**Read User Instruction of chemical cartridge respirator prior to use.  
Do NOT open the bag until just before the use.**

## • Scope of applications

This chemical cartridge is designed to be used in the environment where "there are organic vapor and dusts." However, the conditions described in the following "⚠DANGER" must be satisfied.



Make sure all of the following conditions are satisfied.

① 18% or more of oxygen concentration at the workplace. ② Toxic gas concentration level at the workplace is less than 0.1%. ③ The targeted gas is the organic vapor that can be removed by the chemical cartridge for organic vapor. ④ Average toxic gas concentration level is less than 10 times of the exposure limit. (If the duration of work per day is less than 30 minutes, the concentration level must be less than 30 times of the exposure limit). (According to the standard set by Japan Respirator Manufacturers Association). ⑤ The use of the chemical cartridge must be avoided at the workplace if:

- there is a possibility of contamination of spilled radioactive substances;
- there is an exposure risk to dioxin;
- metal fume (including welding fume) diffuses;
- substances, with a standard control concentration level less than  $0.1\text{mg}/\text{m}^3$ , diffuse;
- any environment corresponding to the above conditions; or,
- there is an oil mist.

## • Specifications

	Internal Standard
Service life	more than 85 min.
Air-flow resistance	less than 160Pa
Filtering efficiency (NaCl)	more than 80.0%
Increased value of inhalation resistance	704Pa *
Weight	$41.0 \pm 6\text{g}$
Test conditions in measuring service life: cyclohexane 300ppm; temperature: 20°C, relative humidity: 50%	
Shelf life of unused chemical cartridge is 2 years from the date of manufacturing.	

\* Average value

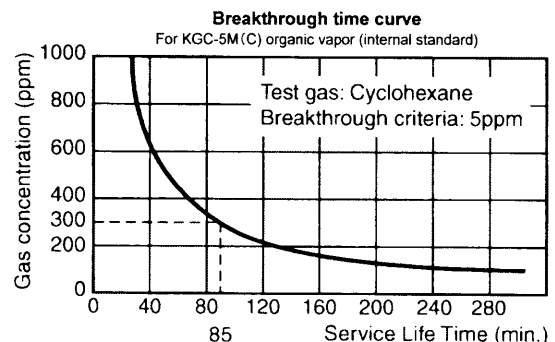
## • Fit test

- ① Completely cover the chemical cartridge with a Fit Tester Type J (option). Don the respirator, close the end of the pipe by pinching it with thumb and forefinger, and inhale. If the facepiece is slightly drawn towards face, good fit is obtained.
- ② If there is inward leakage from the opening between facepiece and face, inspect the exhalation valve area, check the installation condition of the chemical cartridge, adjust the tightness of the head band and adjust the position of the respirator. Perform ① again.

## • Estimated service life of the chemical cartridge (Instructions for use).

Service life will drop out if used beyond the limit. Replace with a new chemical cartridge if one of the following three conditions occurs.

- ① Accumulation of time elapsed meets the service life time calculated by the breakthrough time curve.  
Check the gas concentration level at the workplace and plot it onto the Y-axis. Draw an extension line from the point on the Y-axis, parallel to the X-axis towards the breakthrough time curve. Read the value on the X-axis where the extension line meets the curve. The corresponding point on the X-axis by way of the breakthrough time curve is the estimated service life of the chemical cartridge. (ex. With the cyclohexane concentration level of 300ppm (temp. 20°C, RH 50%), service life is 85 minutes.)
- ② The wearer feels gas smell, or difficulty in breathing.
- ③ Filtering efficiency remarkably decreases, and/or filter is damaged or distorted.



**⚠ WARNING**

- Estimated service life obtained from the breakthrough time curve is just for your reference purpose only. Replace chemical cartridge with a new one well in advance for your safety. Service life also depends on air volume breathed, humidity and temperature.
- Breakthrough time curve attached to the chemical cartridge has been made based on test gases that are specified by Japanese national assay standard and JIS. Even with the same chemical cartridge, service life can vary, depending on the type of gas.
- Even it is within the estimated service life, if you noticed gas smell, gas stimulation, and/or gas taste, immediately escape to safe and clean air area, and replace the chemical cartridge with a new one.
- Make sure to perform fit test prior to each use.

**⚠ CAUTION**

- If you use the chemical cartridge for more than half of the estimated service life, and if you have stored it for more than five days, its remaining service life can be extremely short. In such case, replace the chemical cartridge with a new one at the earliest possible time.
- It is dangerous to estimate breakthrough only by smell. Sense of smell varies between individuals. And you can slowly get paralyzed to gas.

**• Record of used time**

(Fill the used time in the blanks, and replace the chemical cartridge when the total used time reaches to the estimated service life).

yy / mm / dd	/ /	/ /	/ /	/ /	/ /	/ /	/ /
Used time (min.)							
Total used time (min.)							

Type of gas: \_\_\_\_\_

User name: \_\_\_\_\_



**International Trade Division**  
**7, Yonbancho, Chiyoda-ku, Tokyo 102-8459, Japan**  
**Tel :+81-3-5276-1925**  
**Fax :+81-3-3265-1976**