

# ORGANIC VAPOR CARTRIDGE KGC-10L(C)

The cartridge works against organic vapor and dusts (category S1) if used with a mighty micron pre-filter type 10L (option).

**Read User Instruction of gas mask prior to use.  
Do NOT open the bag until just before the use.**

## • Scope of applications

This cartridge is designed to be used in the environment where "there is organic vapor but the use of particulate respirator is not required." If used with a mighty micron pre-filter type 10L (option), it can be used in the environment where "there are organic vapor and dusts." In both cases, 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. ② Toxic gas contamination level at the workplace is less than 0.1%. ③ The targeted gas is the organic vapor that can be removed by the organic vapor cartridge. ④ When installed on a half-facepiece respirator, 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). (Standard of Japan Respirator Manufacturers Association). ⑤ Particulate respirator is not required at the workplace. If used with a mighty micron pre-filter type 10L (option), it can be used in the dust environment; however, its use 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 0.1mg/m<sup>3</sup>, diffuse.
- there is an oil mist.
- or any environment corresponding to the above conditions.

## • Specifications

	KGC-10L(C) only	with the use of a mighty micron pre-filter type 10L (option)
Decontamination efficiency (*1)	more than 200 min.	more than 200 min.
Air flow resistance	less than 110Pa	less than 230Pa
Particulate filtering efficiency (NaCl)	-	more than 80.0%
Increased value of inhalation resistance	-	222Pa (*2)
Weight	less than 67.0g	less than 81.0g

(\*1) Test gas: cyclohexane 300ppm; flow rate: 30LPM; temperature: 20°C, relative humidity: 50%  
Shelf life of unused cartridge is 2 years from the date of manufacturing.

(\*2) Average value.

## • Fit test (Make sure to read the user instruction of the chemical cartridge respirator)

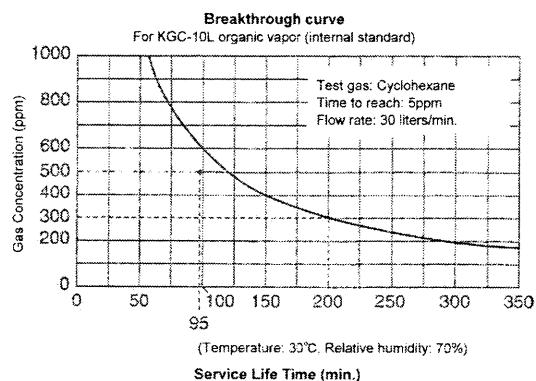
- ① Completely cover the cartridge with a corresponding fit tester (option), according to the user instruction of the chemical cartridge respirator.
- ② Don the respirator, close the end of the pipe by pinching it with thumb and forefinger, and inhale. If the respirator is slightly drawn towards face, good fit is obtained.
- ③ If there is inward leakage, good airtight is not obtained. Inspect the exhalation valve area, check the installation condition of the cartridge, and adjust the tightness of the headband and the position of the respirator. Perform ① and ② again.
- ④ Perform fit test under the same procedure with pre-filter installed if pre-filter is used with the cartridge.
- ⑤ Make sure that the pre-filter retainer is securely in place after fit test is performed if pre-filter is used with the cartridge.

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

Decontamination efficiency will drop out if used beyond the limit. Replace with a new cartridge if one of the following two conditions occurs.

- ① Accumulation of time elapsed meets the service life time calculated by the breakthrough 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 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 curve is the estimated service life of the cartridge. (ex. With the cyclohexane concentration level of 300ppm (temp. 20°C, RH 50%), service life is 200 minutes. With the cyclohexane concentration level of 500ppm (temp. 30°C, RH70%), service life is 95 minutes.)

- ② The wearer feels gas smell, or difficulty in breathing.



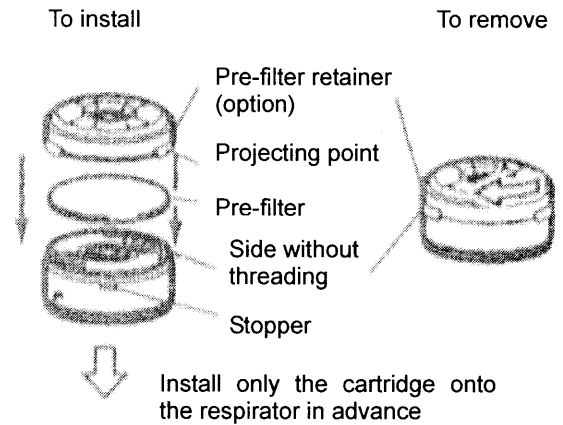
- **Service life of particulate filter** (applicable only when used with a mighty micron pre-filter type 10L (option)).

Replace the pre-filter when:

- Breathing becomes difficult during use; and/or,
- The pre-filter is damaged or distorted.

- **Installation of particulate filter** (with the use of a mighty micron pre-filter type 10L (option)).

- ① Before installing the pre-filter, install only the cartridge onto the respirator.
- ② Place a new mighty micron pre-filter type 10L (option) onto the pre-filter retainer type 10L (option) so that the stamp printed on the pre-filter faces towards the cartridge. Install them onto the upper side (the side without threading) of the cartridge securely. (Make sure that the "stopper" on the cartridge does not overlap with the "projecting point" of the pre-filter retainer, and thoroughly press the pre-filter retainer onto the cartridge).
- ③ To remove, hold the pre-filter retainer lightly, turn it clockwise and pull at the same time. Remove the used pre-filter.



**WARNING**

- Estimated service life obtained from the breakthrough curve is just for your reference purpose only. Replace cartridge with a new one well in advance for your safety. Service life also depends on air volume breathed, humidity and temperature.
- Use the cartridge under normal temperature, normal humidity and normal atmospheric pressure. If the condition at the workplace significantly differs from normal temperature and/or normal humidity, performance level could remarkably decrease. Call Koken or local distributor.
- Breakthrough table attached to the cartridge has been made based on test gases that are specified by Japanese national assay standard and JIS. Even with the same cartridge, service life can vary, depending on the type of gas. (Do NOT re-use the used cartridge if once used against toxic gas, such as methanol and carbon bisulfide, with service life significantly shorter than that of the test 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 cartridge with a new one.
- Make sure to perform fit test prior to each use.
- If you work in a dust environment, use a mighty micron pre-filter type 10L (option).
- Do NOT re-use the used mighty micron pre-filter type 10L (option) by flipping it over.
- Make sure that there is no distortion, damage, etc. on the cartridge prior to use. (When using a used cartridge, make sure that the remaining service life is sufficient and there is no distortion, damage, etc. on the cartridge).
- If you use the 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 cartridge with a new one at the earliest possible time.
- Gas smell can be used as tool to judge for replacement only when it is sensed in the environment with a concentration level below the exposure limit. However, it is dangerous to estimate the service life only by smell. Sense of smell varies between individuals. And you can be slowly got eased into gas.

**CAUTION**

- When storing a cartridge with sufficient service life for re-use, make sure to put it in sealed package and store it in a dark, cool place.

- **Record of used time**

(Fill the used time in the blanks, and replace the 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: \_\_\_\_\_



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