

ACID GAS CARTRIDGE KGC-1L(B)

For Industrial Use ONLY

This product is designed for industrial use only. Make sure that this product be used by persons who:

- Have sufficient knowledge on occupational health and safety and respiratory protective equipment; or,
- Work under the close supervision of personnel with sufficient knowledge.

- **Shelf life is 2 years from the date of manufacture** if this chemical cartridge is stored unopened. The date of manufacture is printed on the side of the chemical cartridge.

Please observe the following precautions:

- ★ Store this chemical cartridge unopened in dark, cool place. Avoid direct sunlight, toxic gas and high humidity.
- ★ NEVER use this chemical cartridge if it is torn, holed or opened.
- ★ NEVER use this chemical cartridge if its shelf life is expired even in un-open condition.
- ★ NEVER disassemble this chemical cartridge.
- ★ Make sure that there are no distortions and/or no damages such as scars on this chemical cartridge.

- Read user instruction of chemical cartridge respirator prior to use.
- There is no quality deterioration even if the air in the package is found expanded due to the change in temperature.
- Read user instruction of the respirator carefully and install the chemical cartridge on the respirator correctly.

● Scope of applications

Working environment where the use of acid gas cartridge is effective.

- ★ If used with a dedicated filtering material* (option), this chemical cartridge can be used in working environment where acid gas and dusts co-exist. (Class: S1) *Mighty Micron Pre-Filter Type 1
- ★ This chemical cartridge can NOT be used with Model R-6 and Model 1761G.



- This chemical cartridge should NOT be used in working environment where:
 - ① Concentration level of oxygen is under 18%;
 - ② Toxic gas that cannot be removed with the use of acid gas cartridge exist; and/or,
 - ③ Concentration level of toxic gas is over 0.1%, average concentration level of toxic gas is over 50 times of its exposure limit in case full-facepiece respirator is used, or average concentration level of toxic gas is over 10 times of its exposure limit in case half-facepiece respirator is used. (Average concentration of toxic gas is over 150 times of its exposure limit in case full-facepiece respirator is used, and over 30 times of its exposure limit in case half-facepiece respirator is used, if working hours per day are under 30 minutes). (cf. standards set by Japan Respirator Manufacturers Association)
- Even with the use of dedicated particulate pre-filter, this chemical cartridge can NOT be used in the following working conditions:
 - Regular work or emergency work performed in areas where there is a possibility of contamination due to spillage of radioactive substances etc.;
 - Working applications where there is a possibility of exposure to dioxin;
 - Removal work of asbestos;
 - Working applications performed in areas where metal fume (including welding fume) diffuse;
 - Working applications performed in areas where particulates, with standard control concentration level less than 0.1mg/m³, diffuse;
 - Any working applications similar to the above; or,
 - Working applications where oil mist etc. exists.
- This chemical cartridge can NOT be used in working environment which is substantially away from normal temperature, normal humidity or normal atmospheric pressure, as its expected performance may decrease significantly.

● Fit test (Make sure to also read user instruction of chemical cartridge respirator).

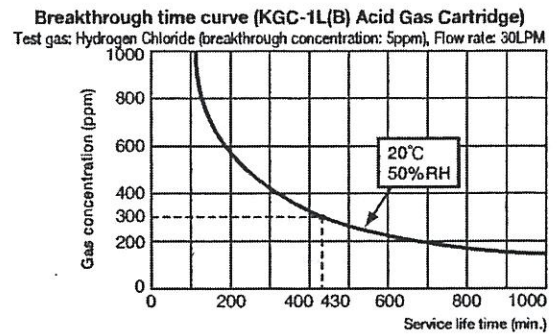
- ① Completely cover chemical cartridge with an appropriate fit tester (option) and put on respirator. Close the end of the pipe by pinching it with thumb and forefinger and inhale. If facepiece is slightly drawn towards face, good fit is obtained.
 - ② If inward leakage is felt inside facepiece, good air-tightness is not obtained. Check installation condition of the chemical cartridge, and adjust tightness of headband and position of the respirator. Perform fit test. If good fit is obtained, remove the fit tester.
- Make sure to perform fit test prior to each use.
 - If pre-filter is used, fit test should be performed with the pre-filter installed on the chemical cartridge. (Make sure that pre-filter retainer is in place when removing the fit tester from the chemical cartridge).

● Specifications

	KGC-1L only	With the use of a mighty micron pre-filter type 1, Class S1
Service life *	Over 430 min.	Over 430 min.
Air flow resistance	Less than 115Pa	Less than 235Pa
Filtering efficiency (NaCl particles)	-	Over 80.0%
Increased value of inhalation resistance	-	525Pa (Avg.)
Weight	79.5±6.0g	90.5±6.5g

* Test conditions

Cyclohexane: 300ppm, Temperature: 20°C, Relative humidity: 50%



● Replacement schedule of chemical cartridge (Replace well before the expiration).

Replace chemical cartridge when:

- ① Total time spent has reached the service life time obtained from breakthrough time curve;

Example:

Service life time	Conditions of working environment
430 min.	Concentration of hydrogen chloride: 300ppm, temperature: 20°C and relative humidity: 50%

- ② Wearer feels gas smell or difficulty in breathing; or,
 ③ Damage is found on the chemical cartridge.

● Use of dedicated pre-filter

(Install pre-filter onto chemical cartridge so that the side with stamp faces toward wearer's face).

Make sure to install dedicated pre-filter if this chemical cartridge is used in particulate-contaminated environment. Do NOT re-use the pre-filter by flipping it over when airflow resistance has increased due to clogging. Deformed or damaged pre-filters should not be used.

● Disposal

Do NOT disassemble chemical cartridge for disposal. Tightly seal the chemical cartridge for disposal in a bag so that toxic substance would not diffuse and dispose it as industrial waste, following local regulation. Dispose of the spent filter in a tightly sealed bag so that particulates attached to the surface would not diffuse.

● Record of total time spent

Replace chemical cartridge well before the total time spent reaches the estimated service life time.

Month/Date	/	/	/	/	/	Estimated service life time
Time spent per day (min.)						(min.)
Total time spent (min.)						

Name of Gas _____

Name of User _____

⚠ WARNING

- Assigned test gas specified on Japanese Industrial Standards (JIS) was used to prepare the breakthrough time curve printed on this user instruction. Estimated service life time differs depending on the type of gas.
- Estimated service life time obtained with the use of breakthrough time curve is designed for reference purpose only. As service life time differs depending on various factors such as air volume breathed, humidity, temperature etc., replace the chemical cartridge with a new one well before the expiration of the service life time for your safety.
- Even within the estimated service life time, immediately escape to a safe place with clean air and replace the chemical cartridge with a new one if gas smell, stimulation or taste is noticed.
- In case of re-using a chemical cartridge, tightly seal it in a bag and store in dark, cool place. Prior to re-use the chemical cartridge, make sure that sufficient service life time remains and there are no damages such as deformation or scratch on the surface.
- The sense of smell may become paralyzed over time, and therefore, do NOT judge only by smell to replace a chemical cartridge.

Keep this user instruction on hand and check the contents as necessary. Call KOKEN when you have any questions or lost this user instruction.

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