

User Instruction

- Before use of this respirator, read carefully and understand this User Instruction of Model 1010A to obtain designed protection.
- Keep this User Instruction as useful reference if you have any questions during usage.

Replaceable Type Particulate Respirator (Direct connection type, Half facepiece Category: RL1)

Model 1010A

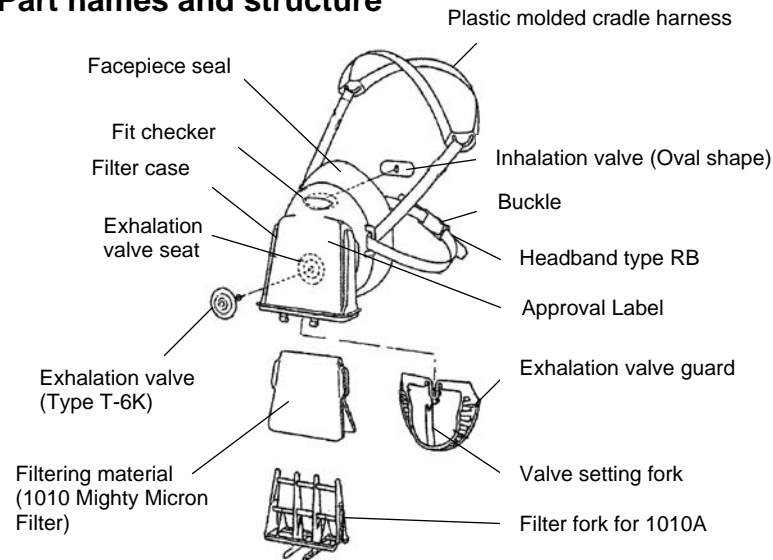
Model Revision 1010A-05
Japan National Assay Registration
No.TM198

Scope of applications

Model 1010A is a particulate respirator designed to protect the wearer from breathing particulates, etc. Regardless of the presence of oil mist, never use Model 1010A in the environment described as "▲DANGER" and/or "▲WARNING".

*Before use, make sure that approval label is attached on the respirator.
Approval label is attached on the filter case.

Part names and structure



For safe and proper usage

The following special messages may appear throughout this User Instruction to warn the wearer of potential hazard. Before reading the User Instruction, please make sure to read the definitions of the special messages and understand the contents.

- ▲ DANGER** indicates an imminently hazardous situation. Unless following the instructions, there is a high possibility of resulting in **death or serious injury**.
- ▲ WARNING** indicates a potentially hazardous situation. Unless following the instructions, there is possibility of resulting in **death or serious injury**.
- ▲ CAUTION** indicates a potentially hazardous situation. Unless following the instructions, there is possibility of resulting in **light injury or damage accident**.

▲ DANGER

- **Do NOT use this respirator in oxygen-deficient environment (where the concentration of oxygen is less than 18%) or workplace where the concentration of oxygen is unknown or toxic gas exists.**
Misuse will result in death or acute intoxication due to lack of oxygen and/or gas inhalation. Use supplied air respirator in such environment.
- **Do NOT use this respirator in workplace categorized as "Working environment with a possibility of exposure to radioactive materials due to spillage or related emergency works", "Working environment with a possibility of exposure to dioxin, etc.," "Working environment involving asbestos removal," or "Any related works."**
For these works, use proper respiratory protective devices such as particulate respirators categorized as RS3 or RL3.
- **Make sure to use Model 1010A in normal temperature.**

▲ WARNING

- **Do NOT use this respirator in workplaces where a) metal fume (including welding fume) diffuses, b) particulate substances with control concentration of less than 0.1mg/m³ diffuse, or any related works are performed.**
For these works, use proper respiratory protective devices such as particulate respirators categorized as RS2 or RL2.
- **Use "1010 Mighty Micron Filter" exclusively designed for Model 1010A.**
"1010 Uni Micron Filter" and "1015 Uni Micron Filter" can NOT be used with Model 1010A.

How to use

Inspections prior to use

Make sure to perform the following inspections before donning the respirator.
(Refer to "Inspection Procedure" (Page 4) for more details).

Check Points	Troubleshooting
Are filtering material, filter fork, inhalation valve and exhalation valve properly installed?	Install the parts properly.
Are there any damages such as cracks, distortions and/or scars on plastic parts, inhalation valve, exhalation valve and/or facepiece?	Replace the parts or respirator.
Are there any damages such as distortion and hole or remarkable dirt on filtering material?	Replace the filtering material with a new one.
Is headband well elastic without any damage and/or deterioration?	Replace the headband with a new one.

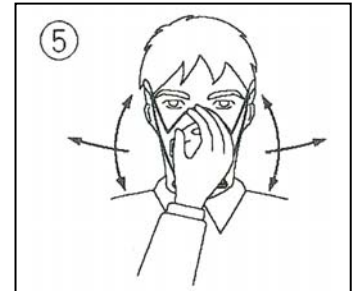
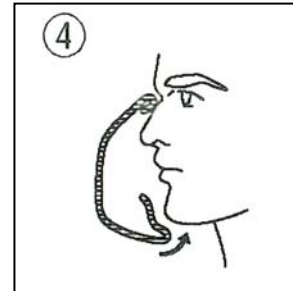
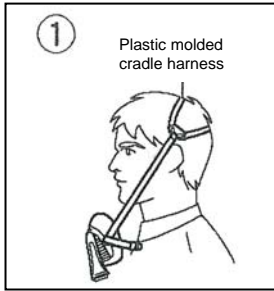
▲ WARNING

- Make sure that facepiece is well fit on the face. Check the fitness according to the "Performing fit test." (Page 2).
- Airtight cannot be maintained under the following conditions as toxic substance may leak into the facepiece. Do NOT use this respirator until any improvements are performed.
 - There is beard, sideburns and/or hair that comes inside the face-contacting area of the respirator.
 - There is mustache and/or chin beard that interfere the operation of the exhalation valve.
- Do NOT use the respirator if the wearer has a disorder in respiratory or circulatory system, or is claimed inappropriate by a doctor.

Fitting instructions

Perform in clean place without hazardous substance.

- ① Place the plastic molded cradle harness on your crown of head.
- ② Hold both ends of the headband.
- ③ Pull them evenly so that the respirator approaches to your face. Fasten the buckle on the back of your neck.
- ④ Place the facepiece over the bridge of your nose so that it stays completely over face, and then, place it over chin.
- ⑤ Adjust the respirator position on face for stable position by aligning it left and right, up and down.
- ⑥ Make sure to perform fit test after donning is completed.
- ⑦ To remove the respirator, remove the buckle.

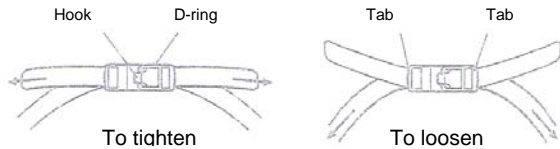


< Adjustment of headband length >

Adjust the length of the headband so that there is no slight opening between respirator and face. Also make sure not to over-tighten the headband to avoid oppression.

*Make sure that the headband is evenly tightened.

- ① To tighten, pull the headband on the hook side and D-ring side.
- ② To loosen, release the tension of the headband by lifting both tabs of the hook and D-ring.



CAUTION

- If the headband is over-tightened, feeling of fitness may worsen, and the wearer may experience a feeling of discomfort after working for a long time.
- After adjustment, make sure to perform fit testing.

WARNING

- If the length of the headband cannot be adjusted, make the adjustment following <Adjustment of headband length>.
- Make sure that the headband is well elastic and has enough strength for tightening.
- When donning, make sure that the length of the headband on the right and left is even. Respirator cannot be donned properly and there is a possibility that the respirator does not fit completely on face. If the headband is over-extended, or the length of one side of the headband is much longer than the other, it may get caught into machines, etc.
- The wearer with allergic tendency and/or fragile skin may suffer from rough skin surface, eczema, etc. by using the respirator. And the similar symptom may occur due to sweat, particulates and/or dirt attached on the surface of the facepiece. In such case, stop using the respirator and consult with a doctor.
- Do NOT wear the respirator on towel applied over face. Particulates may leak into the facepiece.
- In case proper donning cannot be maintained, such as dislocation of the respirator while working, move to a clean area without toxic substance and don the respirator properly again.

Performing fit test

Perform fit test in a clean place without hazardous substance.

- ① Don the respirator, completely lift the fit checker up and inhale. Good fit is obtained if the facepiece is pressed against the wearer's face.
- ② Good fit is not obtained if the wearer feels the leakage of air between facepiece and face. Re-inspect the respirator (inspection of various parts (mainly exhalation valve and installation condition of filter), adjustment of headband, adjustment of the position of the respirator, etc.) and perform ① again.
- ③ If good fit is obtained, make sure to press down the fit checker before entering into the workplace.

Fit checker



WARNING

- Make sure to perform fit test prior to each use. If not donned properly, particulates may leak from the opening between face and facepiece and be inhaled.
- Make sure that the respirator would not be dislocated while pressing down the fit checker.
- Do NOT handle fit checker violently. Fit test may not be performed properly.

Replacement of filtering material (filter)

Replace filtering material in clean place without hazardous substance.

Replacement schedule

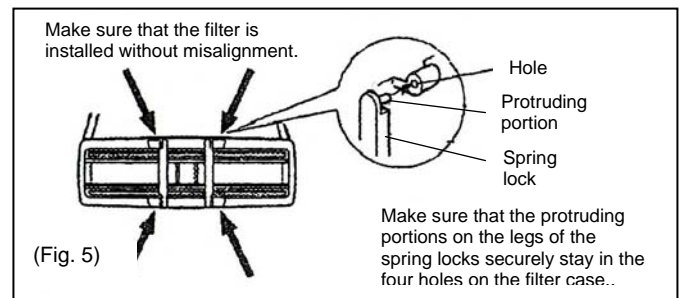
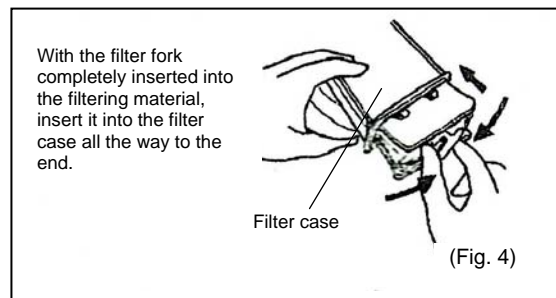
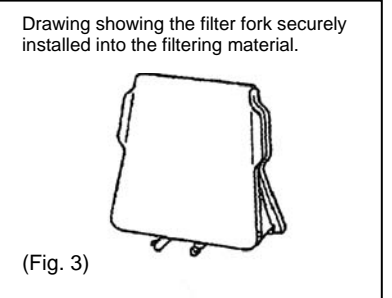
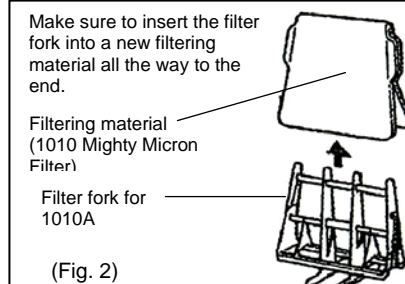
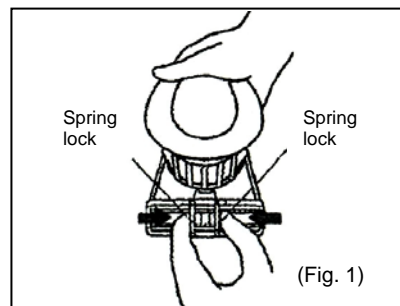
Replace filtering material when:

- ⊙ Breathing becomes difficult.
- ⊙ Filtering materials are damaged, distorted, and/or get holes, and/or;
- ⊙ Filtering efficiency gets remarkably decreased.

Replacement procedure

Replace 1010 Mighty Micron Filter according to the following procedure.

- ① Pinch the legs of spring locks of filter fork, and pull it out from filter case. (Fig. 1).
- ② Remove used filtering material from the filter fork. *
- ③ Insert the filter fork into a new filtering material all the way to the end. (Fig. 2).
- ④ With the filtering material installed on the filter fork (Fig. 3), hold the legs of the spring locks and insert it into the filter case. (Fig. 4). Make sure that the protruding portions on the legs of the spring locks securely stay in the four holes on the filter case. (Fig. 5).



*Do NOT disassemble or clean the used filtering material. Put it in a sealed container or bag for disposal so that particulates captured do not diffuse.

CAUTION

- Pay particular attention to the protruding portion at the upper end of the filter fork, as fingers could get injured.

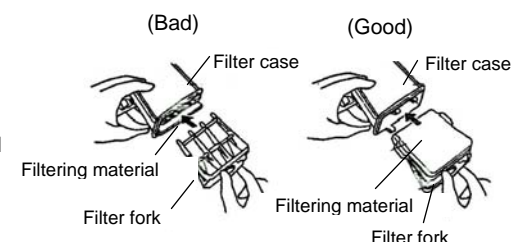
WARNING

- Make sure to use filter fork for 1010A.
- Make sure to completely install the filtering material and filter fork. If not properly installed, or a filter fork for 1010A is not used, filtering material/filter fork may drop off or particulates may leak into the facepiece.

CAUTION

- Do NOT install the filter fork after filtering material is inserted into the filter case.

Filtering material may get distorted and slight gap may be created, resulting in leakage into the facepiece.



Document No. PM OM D-351 (E-001). Translation of Japanese instruction manual on Model 1010A as of Feb. 2009 PM OM D-351.

Translated in February, 2009. Contents described in this User Instruction may differ from the requirements / specifications exercised outside Japan. In such case, make sure to follow local laws and regulations.

Replacement of inhalation valve / exhalation valve

Replace inhalation valve / exhalation valve in clean place without hazardous substance.

Replacement schedule

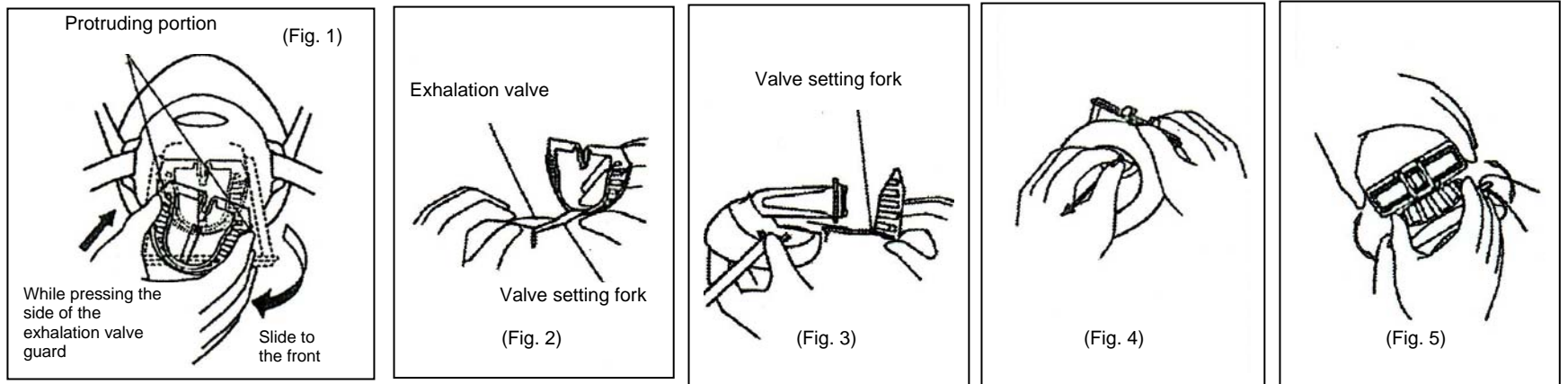
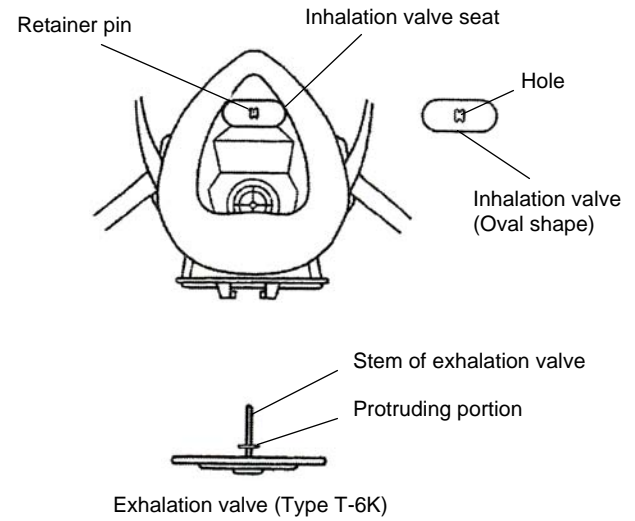
- Ⓞ Replace when crack, distortion, damage, dirt, and/or sticky surface is observed.

Replacement procedure of inhalation valve

- ① Remove worn inhalation valve from retainer pin of the valve seat located inside of the respirator.
- ② Place a new valve in its position. Widen the hole located at the center of the valve with fingers so that the retainer pin easily goes through the hole.

Replacement procedure of exhalation valve

- ① While pressing the side of the exhalation valve guard (white piece) with thumb, slide the protruding portion of the exhalation valve guard to the front and remove it from the respirator. (Fig. 1)
- ② Pinch the used exhalation valve with fingers and remove it from the respirator.
- ③ Place the stem of a new exhalation valve into the slot provided at the top of the valve setting fork on the exhalation valve guard. (Fig. 2)
- ④ Insert the stem of the new exhalation valve into the hole located at the center of the exhalation valve seat. (Fig. 3). With fingers, pinch the stem of the exhalation valve which comes out inside of the respirator, and pull it until the protruding portion on the stem comes out. (Fig. 4).
- ⑤ Install the exhalation valve guard back to the respirator. Move the valve setting fork back to the original position. Make sure to push the valve setting fork all the way to the end so that it stays to the side of the filter case. (Fig. 5)
- ⑥ Check if the exhalation valve guard is securely installed.



Replacement of headband

Replace headband in clean place without hazardous substance.

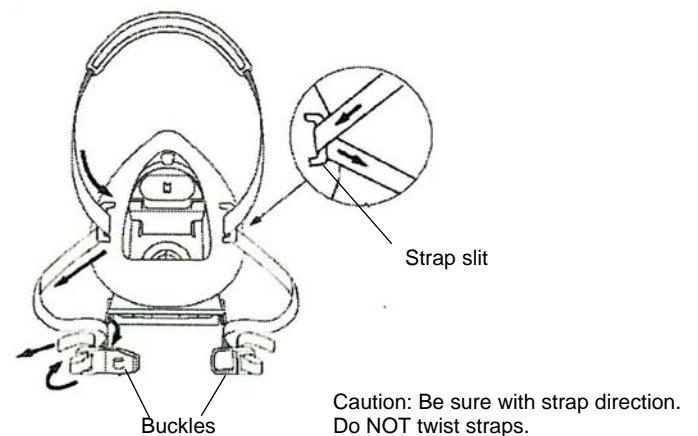
Replacement schedule

Replace the headband with a new one when:

- Ⓞ Crack, distortion, damage, etc. are observed on buckles and/or plastic-molded cradle harness;
- Ⓞ Buckles cannot be disconnected easily or securely fastened;
- Ⓞ Headband is not fully-elastic; and/or,
- Ⓞ Headband does not have enough strength to hold the respirator.

Replacement procedure

- ① Disconnect the buckles on headband.
- ② Remove the headband straps through the strap slit located on the left/right sides of the headband holders.
- ③ To install a new headband, insert the straps of the new headband through the strap slits from the facepiece side.
- ④ Securely fasten the buckles while paying attention to the sides of the headband straps, as shown on the illustration on the right.



Optional accessories and usage

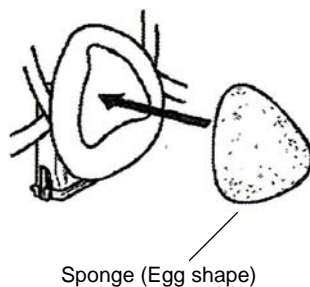
Perform in clean place without hazardous substance.

● Sponge (Egg shape)

Use when the wearer feels discomfort on moisture or sweat accumulated inside of the respirator.

How to use

Insert the sponge with its narrow end up into the inside of the facepiece. Make sure that it does not interfere the movement of the exhalation valve.



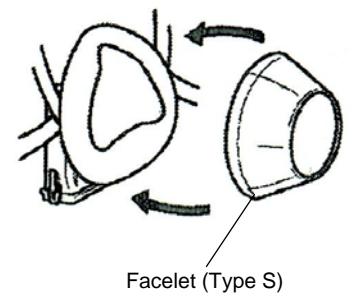
● Facelet (Type S)

Facelet avoids irritation due to sweat on skin which touches on the facepiece.

How to use

Expand the rim of the facelet and cover it over the facepiece evenly so that it stays without crimp.

*Make sure that the facepiece does not become deformed.



⚠ WARNING

- Avoid using the facelet unless there is a possibility where the use of the particulate respirator causes eczema on facial skin and sufficient airtight is obtained on facepiece. The use of the facelet may become a cause of leakage of particulates into the facepiece.

Check points	Criteria	Troubleshooting	
Facepiece seal	No cracks, no distortions, no holes, no sticky surface due to rubber deterioration and/or no remarkable dirt are found.	Replace the respirator with a new one. Clean the respirator if dirt and /or foreign object attached are found.	
Filter case	No cracks, no distortions no damages such as holes and/or no remarkable dirt are found. Check if the filtering material can be securely installed.		
Exhalation valve seat	No cracks, no distortions, no scars, and/or no remarkable dirt are found.		
Fit checker	Fit checker moves smoothly and fit test can be performed at ease. No cracks and/or no distortions are found.		
Inhalation valve	No cracks, no distortions, no damages such as scars, no sticky surface due to rubber deterioration and/or no remarkable dirt are found.	Replace the part with a new one. Clean the part if dirt is found.	
Filter fork Exhalation valve cover	No cracks, no damages such as distortion, and/or no remarkable dirt are found.		
Exhalation valve	No cracks, no distortions, no scars, no holes and/or no sticky surface due to rubber deterioration and/or no remarkable dirt are found. No foreign objects such as particulates are found.	Replace the exhalation valve with a new one. Clean the exhalation valve if foreign objects such as particulates and/or remarkable dirt are found.	
Headband	Straps	Fully-elastic. It keeps necessary strength to hold respirator.	Replace the headband with a new one.
	Plastic molded cradle harness, Buckles	No cracks, no distortions, and/or no chips are found. Buckles can be disconnected at ease and can be securely fastened.	
Filtering material	External appearance	No distortions, no holes, no remarkable dirt and/or no excessive moisture are found.	Replace the filtering material with a new one.
	Inhalation resistance	Breathing is not difficult when donning the respirator.	
Condition at connecting parts	There are no missing parts. There is no gap at the connecting portions.	Install the missing parts, or replace the part with a new one..	

For cleaning, refer to "Cleaning after use".

● **Specifications**

	Internal standard	Average
Filtering efficiency (Test particulate: DOP)	80.0% or more	94.8%
Inhalation resistance	50±20Pa	63Pa
Exhalation resistance	40±23Pa	44Pa
Increased value of inhalation resistance	-	98Pa
Increased value of carbon dioxide concentration / Dead space	0.6% or less / 240cm ³ or less	0.46% / 184cm ³
Weight	76±15g	78g

The values above represent the performance level without optional parts, etc.

Replacement parts

Call Koken or local distributor to purchase the following replacement parts.

- Filtering material 1010 Mighty Micron Filter
- Filter fork Filter fork for 1010A
- Inhalation valve Inhalation valve oval shape
- Exhalation valve Exhalation valve type T-6K
- Headband Headband type RB.
- Sponge Sponge egg shape (50pcs / bag)
- Cloth to avoid skin irritation due to sweat Facelet Type S (5pcs / bag)

1. Cleaning after use.

Perform cleaning in clean place without toxic substance.

● **Filtering material**

When time for replacement is approaching, dispose of the used filtering material in sealed bag without disassembling or cleaning

⚠ WARNING

- NEVER attempt the followings, or the filtering material could be distorted or damaged, or the filtering performance be decreased.
- Do NOT apply unnecessary impact on the filtering material to get rid of captured particulates, for example.
- Do NOT use compressed air to blow away captured particulates attached on the filtering material. Do NOT vacuum captured particulates attached on the filtering material.
- Do NOT wash the filtering material in water.

● **Parts other than filtering material**

⚠ CAUTION

- Make sure to remove the filtering material before cleaning respirator.
- Gently wipe attached particulates and dirt such as sweat with a dry or slightly wet cloth. Be sure not to damage the respirator.
- Clean remarkable dirt with mild detergent diluted with warm water. Be careful not to scratch respirator, especially the exhalation valve seat, inhalation valve and exhalation valve. Then remove detergent by rinsing completely.
- Wipe out residual water after cleaning and dry it out of direct sunlight.
- Disinfect facial contact area and inside of the facepiece by wiping it with alcohol-soaked cloth. Then wipe the alcohol out completely.

⚠ CAUTION

- Always keep facial contact area clean. Dirt attached on the facial contact area could cause rough skin and skin irritation.
- If alcohol for disinfection is used, dry the respirator completely or wipe water completely after rinsing it with water.

2. Storage

● **Place for storage**

After cleaning, store the respirator in a dry place without heavy temperature fluctuations and/or high humidity. Do NOT pile up the cleaned respirators, as the facepiece, headband, etc. could be cracked and/or distorted. Avoid a direct sunlight for storage. Prepare an exclusive storage place so that the storage condition can be checked at ease.

⚠ CAUTION

- Do NOT store Model 1010A in place where particulates, foreign objects, etc. exist to avoid leakage of particulates, foreign objects, etc. into the facepiece..



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