

LFIM

Li-ion Fire Intervention Mask

Description

LFIM stands for **Li-ion Fire Intervention Mask** and is a breath and face protective mask that protects against the risks of lithium-ion fires and incidents.

Risks Lithium-ion

Lithium-ion batteries and cells are used in high energetic energy storage systems used in electronic equipment, tools and means of transport. The disadvantage of these Lithium-ion batteries and cells is that the composition and structure consists of a construction and materials that: under the influence of temperature, impact or failing BMS system will get in thermal runaway. This creates a pressure build-up causing the cell to burst or explode, toxic and flammable gas are released and an exothermic reaction will occur that can initiate a fierce fire.

Application

The LFIM provides 15 minutes of protection against the toxic gases released from lithium-ion batteries and cells and protects the face against High Speed Particles released when the lithium-ion batteries and cells explode. The LFIM is therefore an effective addition to F500 extinguishing systems and offers optimal protection for people who are exposed to the risks of lithium-ion batteries and cells. The LFIM is equipped with filters that provide protection against harmful and toxic substances released in fires such as CO₂, carbon monoxide and in Li-ion fires such as HF, Hydrogen Fluoride, HCL Hydrochloric Acid, LiOH, Lithium hydroxide, C*H*, hydrocarbons, NH₃, Ammonia and derivatives, SO₂, Sulphur dioxide, soot and particles.

Sectors in which the LFIM can be used in addition to F500 extinguishing systems are:

- Firefighting of lithium-ion batteries
- Parking garages and EV charging locations
- Recycling and waste management companies
- Hoist and towage services
- Repair shops
- Tools charging station construction and landscaping
- Battery charging stations
- Battery Storage
- Trucks and passenger cars
- Buses and trains
- E-bikes and E-mobility in general
- Delivery areas and transshipment points
- Processing industry



Benefits and Features

- **LFIM** is produced by Medisafe BV in the EU
- **LFIM** has a shelf life of 5 years after production
- **LFIM** is vacuum packed "ready to use"
- **LFIM** provides protection for 15 minutes
- **LFIM** protects against toxic gases and particles
- **HCL** Hydrogen Chloride 100 % (g)
- **HF** Hydrogen fluoride 100 % (g)
- **LiOH** Lithium Hydroxide 100% (g/p)
- **C** Soot and particles in breathing air
- **P** High speed particles and shards
- The Li-ion Fire Intervention Mask protects against:
 - Toxic, noxious fumes and smoke from fires including Li-ion fires.
 - Particles and fragments ejected by fire and the explosion of Li-ion batteries.
 - Stinging flames from fire and Li-ion batteries.
- The Li-ion Fire Intervention Mask is deployable:
 - Within the period before the expiry date.
 - Provided in unopened packaging.
 - For single use and a maximum of 15 minutes.
- The Li-ion Fire Intervention Mask can be used by:
 - Company first aiders, first responders and persons with Li-ion Fire Intervention Mask training.
 - Persons trained in fighting fire and Li-ion fires.
 - Persons in good health with adequate organ condition, particularly of the lungs and heart.

Certification

The LFIM is unique and the only product in Europe that provides protection against the specific hazards of Lithium-ion batteries and cells. The certifications on this product consist of:

- EN136: 1998 Full Face Mask
- mod. C2 EU reg. 2016/425 Packaging
- EN143387+A1 - 2008 Gas and particulate filters
- EN168 High speeds particle test
- EN166 Eye and face protection
- CE0161 NoBo EU reg. 305/2011
- The mask body is designed according to European standard (EU) 2016/425 and harmonised standard EN136:1998.
- The mask body and visor are specifically tested and designed in accordance with N168:2001 and EN166:2001.
- The respiratory protection filters with a bayonet closure are tested and designed in accordance with : EN14387:2021 and A1:2008.
- The vacuum seal packaging and storage period are in accordance with regulations Mod. C2 EU reg. 2016/425.
- Independent inspection body NOBO: ATEX Plaza de Emilio Sala 1, 03801, Alicante.



Maintenance

The LFIM is protected packed in a foam packaging and UV protective vacuum packaging in accordance with EN136 mod. C2 EU reg. 2016/425. This means that an annual inspection of the mask is not necessary. The mask is suitable for single use within the shelf life period of 5 years and can be returned after use or when the expiration date expires for revision and update at a reduced rate from a sustainability point of view.

Storage instruction:	Store the LFIM Mask in a, dry and dark place. Protect from UV rays and sunlight.
Storage temperature:	-10 °C to 70 °C.
Use:	Single use.
Expiry date:	See vacuum packaging and outside of storage box.

User Instructions

NOTICE

Read the user instructions before use.

DANGER

Users must not be under the age of 18.

DANGER

Avoid contact with flames and heat.

DANGER

Only use the Li-ion Fire Intervention Mask in environments with 19% to 22% oxygen.

WARNING

Avoid contact with soot from the fire as much as possible.

WARNING

Do not use the mask for more than 15 minutes.

CAUTION

Before you use the Li-ion Fire Intervention Mask you should ensure:

- The integrity of the mask and that the visor is present and transparent.
- The two filters are fitted and fixed in position.
- The headbands are present and functional.
- The inhalation valves are present in the inner mask.
- The exhalation valves are present in the inner mask.

CAUTION

Use the mask only after training in firefighting and the use of the Li-ion Fire Intervention Mask.

CAUTION

Only use the Li-ion Fire Intervention Mask in open areas, **not** in confined spaces.

CAUTION

The Li-ion Fire Intervention Mask is suitable for single use, do not use the mask after use or after the expiry date. Send the mask for inspection and overhaul by the LFIM service centre. Go to www.lfim.eu

User Instructions (Continued)

Putting on the Li-ion Fire Intervention Mask

1. Tear open the vacuum packaging at the seal seam. Remove the mask from the internal foam packaging and hang the mask around the neck with the carrying strap.
2. Then position the mask in front of the face. Insert the chin into the inner mask and press the mask against the forehead. Make sure the mask fits snugly on the face and pull the main pin over the head.



2. E002391

3. Once the mask is properly positioned, symmetrically tighten the bands of the head pin. Starting with straps 1 below your ears, then 2 above your ears and finally 3 on your head



3. E002392

Using the Li-ion Fire Intervention Mask

Once you have put on the Li-ion Fire Intervention Mask you will experience back pressure while breathing because you have to inhale through the filters. Breathe in and out calmly and deeply.

Use the mask for a maximum of 15 minutes during firefighting, intervention or evacuation.

Taking off the Li-ion Fire Intervention Mask

4. After using the LFIM Fire Intervention Mask, proceed to a safe location and take off the mask.
Do this by pushing against the buckles of the main pin straps. This causes the straps to release tension. Then pull the LFIM further away from your face and move the mask back over your head.



4. E002393 / E002394

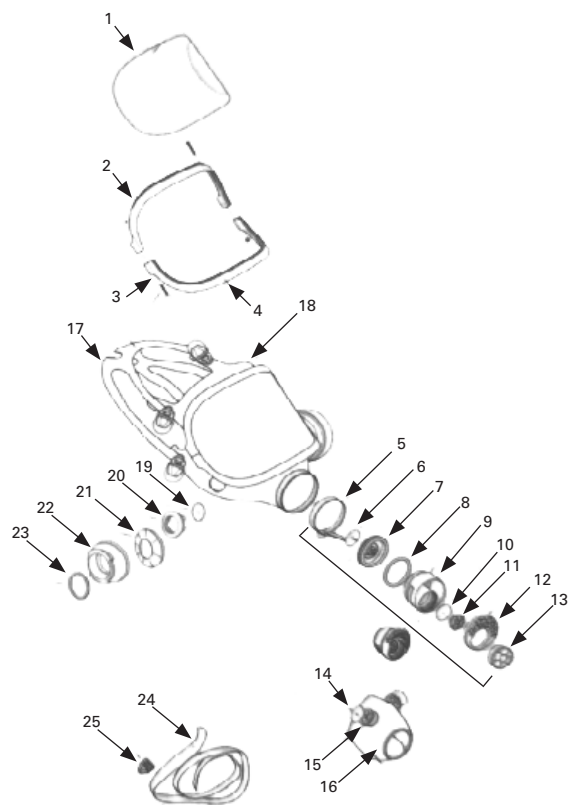
WARNING

After using the Li-ion Fire Intervention Mask your clothes and body may be contaminated with soot, smoke and chemicals released from the fire. These substances have an adverse effect on your health. Ensure that you:

- Wash yourself well after using the Li-ion Fire Intervention Mask to remove any contamination from your body.
- Change your clothes to avoid contamination with these substances and wash them separately from other laundry.
- Dispose of it in small chemical waste after use.
- Replace the used Li-ion Fire Intervention Mask. Go to www.lfim.eu

CAUTION

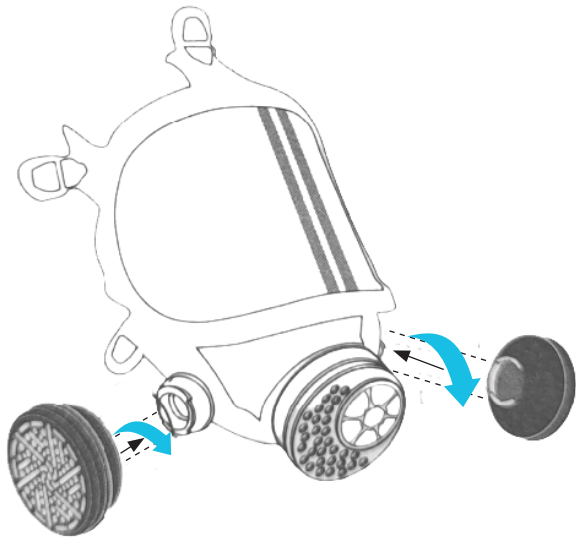
If the Li-ion Fire Intervention Mask has not been used, but the packaging is open or the expiry date is not visible on the packaging, send your LFIM to the LFIM service centre (Go to www.lfim.eu) for inspection at a limited cost. The LFIM service centre shall overhaul, inspect, and repackage your LFIM with new filters. You will receive your LFIM back, suitable for a period of 4.5 to 5 years.



E002400

No.	Description	Pieces
1	Polycarbonate visor	1
2	M4 Nut visor frame	2
3	M4 Screw visor frame	2
4	Visor frame	1
5	Clamping ring	1
6	Exhalation valve	1
7	Pressure nut exhalation valve holder	1
8	Gasket	1
9	Connection housing	1
10	Inhalation valve	1
11	Inhalation valve holder	1
12	Cover cap	1
13	RD-40 cap	1
14	Nose valve inner mask	2
15	Nose valve holder	2
16	Inside mask	1
17	Head strap set	1
18	Mask body	1
19	Inhalation valve	2
20	Locking nut bayonet holder	2
21	Clamping ring bayonet holder	2
22	Bayonet holder	2
23	Sealing ring bayonet N757	2
24	Neck carrying strap	1
25	Buckle neck strap	1

The LFIM Fire Prevention Mask contains 2 filters which are mounted on both sides of the full face mask. The filters must have the same specification and be fitted with a Bayonet fitting suitable for the model M732-S. To check the filters, turn the filters clockwise to make sure that the filters do not leak and remain tight.



E002401

Responsibility, Risk and Guarantee

Use of the Li-ion Fire Intervention Mask is at the sole responsibility and risk of the user or party who has purchased the Li-ion Fire Intervention Mask. If you do not read, follow and execute the instructions, do not follow training, use a Li-ion Fire Intervention Mask for longer than 15 minutes or expose yourself to greater risks than may be expected of a company firstaider, this may lead to health damage for which LFIM, Medisafe BV or an LFIM reseller cannot be held responsible.

The warranty on the Li-ion Fire Intervention Mask is a maximum of 12 months from date of purchase.