LFIM

Li-ion Fire Intervention Mask

Description

LFIM® stands for **Li-ion Fire Intervention Mask** and is the appropriate name for 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 gasses are released and an exothermic reaction will occur that can initiate a fierce fire.

Application LFIM®

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 and shares released when the lithium-ion batteries and cells explode. The LFIM® is therefore an effective addition to Li-ion First responders and offers optimal protection for people who are exposed to the risks of lithium-ion batteries and cells. Sectors in which the LFIM® can be used 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 area's and transhipment 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 "ready to use" sealed and packed.
- **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

Certification

The LFIM® is unique and the only product in Europe that offers protection against the specific dangers of Lithium-ion batteries and cells. The LFIM(R) is certified in accordance with:

EN136: 1998	Full Face Mask
mod. C2 EU reg. 2016/425	Packaging
EN143387+A1 - 2008	Gas and particulate filters
EN168 - 2001	High speeds particle test
EN166 - 2001	Eye and face protection
CE0161	NoBo EU reg. 305/2011

Maintenance

The LFIM® is protected by a foam sleeve and packed in UV protective sealpack in accordance with mod. C2 EU reg. 2016/425. This means that an annual recertification of the mask is not necessary. The mask is suitable for single use within the shelf life period of 5 years and can be disposed by small chemical waste when used. When not used and the expiration date expires you can reqeust for revision of the LFIM® at a reduced rate from a sustainability point of view.

LFIM®

LFIM® Intervention Kit

Description

The **LFIM® Intervention Kit** is the combination of the LFIM® mask “ready to use” and a pair of fire, heat and impact protected gloves in one kit.

For first intervention of Li-ion cells in Thermal runaway the **LFIM® Intervention Kit** offers the necessary protection, Li-ion first responders and employees need.

The LFIM® Intervention Kit is packed in a wall mounted cabinet that can be detached from the wall bracket and brought to the location of the Li-ion incident.

Application LFIM® Intervention Kit

By using the LFIM® mask and gloves, and after determining the incident size. The first responder can decide the best appropriate action. For instance to remove the Li-ion cell in thermal runaway to a safe location outside or containment.

The LFIM® provides 15 minutes of protection against the toxic gases released from lithium-ion batteries and cells and protects the head and face against high speed particles and shares released when the lithium-ion batteries and cells explode.

The LFIM Gloves are made from heavy leather and equipped with heat insulating by an molton lining and finished with Kevlar® yarn. The gloves offer protection against mechanical impact, abrasion and heat and can be used fir instance to carry a Li-ion battery or cell to a save location,
apply a insulating fire blanket or operating an fire extinguisher with appropriate fire agent.
The LFIM® Intervention Kit can be used by:

- Firefighting of lithium-ion batteries.
- Parking garages and EV charging locations
- Recycling and waste management companies
- Hoist and towage services
- Repair shops
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- **LFIM** Gloves are heat insulated.
- **LFIM** Gloves offer impact protection.
- **LFIM** Gloves protect against abrasion and flames.
- **LFIM** Gloves are long and protect hand and wrist.

The LFIM Intervention Kit offers the basic necessary protection for all employees and first responders that are by occupation exposed to the risks of Li-ion batteries and cells.

Warning

The LFIM gloves offer good protection.
But it is still important to realize that Li-ion batteries and cells in thermal runaway are unpredictable. Therefore carry the battery or cell as far as possible from your body and keep the battery or cell sideways from your body so smoke and flames can’t reach your body.

