## MedActiv

Solutions for the secure transport of fragile medication

Vaccine Transport Solutions



The future



#### started here...

### The greatest inventions are often born out of simple necessity.

It all started in France in 2008 when Dr Olaf Diegel, an insulin-dependent diabetic, went on a holiday. Insulin, like many other medications, needs to be kept at a constant temperature in the fridge.

When checking-in at his quaint little auberge in Provence, Dr Diegel handed his insulin to the man behind the counter and asked him to put his insulin in the refrigerator. A couple of hours later, when he went downstairs to get his insulin fix, he discovered that someone had put the insulin in the freezer, rendering it useless. Dr Diegel immediately went to a local pharmacy and bought some new in-

sulin, so the crisis was averted momentarily.

It is only a couple of days later, while discussing with his brother in Paris, that the two brothers had the idea of manufacturing a portable fridge for his insulin pens.

#### Life-changing technology was born...

Today, MedActiv is a global leader in the development of transport and storage solutions for sensitive medication. Our products are designed to give users the freedom to travel knowing that their medication is kept at exactly the right temperature. As the chosen partner of major pharmaceutical companies worldwide, MedActiv is constantly pushing back the boundaries of this industry

## We don't just follow guidelines We create them...



Today, the MedActiv technologies differentiate the HealthWorks company from all the other manufacturers and firmly establish the company as a driver in the filed of cold management. A recognized world leader in this field, HealthWorks is now moving from its first successes to the next era of innovation and accomplishment. Clinical validations are an integral part of this process. This is why all the MedActiv solutions are validated by international experts according to international standards.

However, some of our technologies are so ahead of their times that we have to create new standards, just to validate them. Some of our experts sit on regulatory committees such as the ISO (International Standards Organization) and are continuously developing and refining international standard. MedActiv sets the trends in cold management.

When MedActiv solutions are tested, flexible calibrated temperature sensors are inserted inside syringes filled with liquid and then linked to computers that monitor the temperature in real time. In this way, we ensure that the ambient temperature variations do not affect the medication itself.

As the chosen partner for most pharmaceutical companies worldwide, MedActiv provides products with perfect temperature control.

## iCool Vaccine Bag

#### Isothermal Bag

for the transport of sensitive medication between the temperatures of 2 and 8°C



#### **Features**



THE FREEDOM TO TRAVEL

Designed for the transport of sensitive medications at a temperature between 2 to 8°C for 18 hours

COOLING COMPARTMENT

keeps all your sensitive medication at a constant temperature. Includes 3 x 265g polymer gel packs

#### STORAGE SPACE

The large cavity (18 x 7 x 7 cm) is large enough for all your medication needs

#### RECOMMENDED USES

Insulin, growth hormones, adrenaline, monoclonal antibodies, vaccines, interferons, Anti-TNF medications

Specially formulated polymer that stays frozen twice as long as a traditional ice packs and that does not "sweat" while unfreezing

Holds up to 12 injection pens or syringes

Discover all the MedActiv solutions for the safe transport of medication www.medactiv.com

The iCool VacPack keeps all your medication needs at a temperature between 2 and 8°C for 18 hours. It is the perfect travel companion for shorter trips.







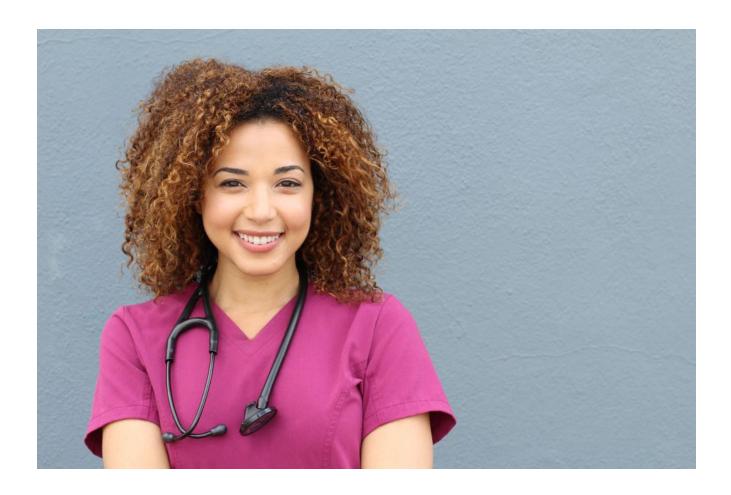
#### Technical specifications

- Weight: 900g
- Dimensions: 200x 140 x 140mm
- Operating Environment: Temp:  $0 \,^{\circ} \,$
- Conditions for transport and storage: Temp:  $-20 \,^{\circ}\text{C} \sim 55 \,^{\circ}\text{C}$ , humidity  $< 95\% \, \text{RH}$





## Developed for nurses and healthcare professionals...



The Last Mile is often the most tricky one. The World Health Organisation estimates that up to 47% of vaccines are denatured in some way during the "Last Mile" (ie getting the vaccine to the recipient).

So we developed the iCool MediCube, a highly-transportable cube measuring 20 x 20 x 20cm that keeps contents between 2 and 8°C for 36 hours to help nurses and medical workers inoculate patients in old-age homes and facilities.

Weighing in at exactly 2kg, the MediCube is made from indestructible Cordura material and is the product of choice to keep your medications organized and portable.

The iCool MediCube includes re-freezable SlowCold gel packs that can be frozen in a standard household freezer at -18°C and has a cavity of 9 x 14 x 18cm.



### iCool MediCube

#### Isothermal Bag

for the transport of sensitive medication between the temperatures of 2 and 8°C



#### **Features**



THE FREEDOM TO TRAVEL

Designed for the transport of sensitive medications at a temperature between 2 to 8°C for 36 hours

COOLING COMPARTMENT

keeps all your sensitive medication at a constant temperature. Includes 2 x 900g polymer gel packs

#### STORAGE SPACE

For the transport of large amounts of medication over long distances.
Useable space of 9 x 18 x 14cm (W x L x H)

#### **RECOMMENDED USES**

Insulin, growth hormones, adrenaline, monoclonal antibodies, vaccines, interferons, Anti-TNF medications

Specially formulated polymer that stays frozen twice as long as a traditional ice packs

Holds up to 50 injection pens or syringes

Discover all the MedActiv solutions for the safe transport of medication www.medactiv.com

The iCool MediCube keeps all your medication at a temperature between 2 and 8°C for 36 hours. It is the ideal tool for nurses to vaccinate patients.





#### **Technical specifications**

- Weight: 2kg
- Dimensions: 200x 200 x 200mm
- Operating Environment: Temp:  $0 \,^{\circ}$  C ~ 32  $^{\circ}$  C, humidity: ≤85% RH
- Conditions for transport and storage: Temp:  $-20 \,^{\circ}\text{C} \sim 55 \,^{\circ}\text{C}$ , humidity  $< 95\% \, \text{RH}$





## We will soon need to vaccinate the whole world...



"Delivering 7.5 billion doses of vaccine globally is a challenge of epic proportions. Of course, you have to consider the logistics of delivery in different areas or countries, but the «last mile challenge» of delivering a vaccine that needs to be kept at a temperature between 2 and 8 °C in places that do not have the necessary infrastructure for safe transport and delivery will always remain an issue», says Dr Olaf DIEGEL, Professor of Industrial Design at the University of Auckland and Director of R&D at MedActiv.

But what about vaccines that need to be kept at lower temperatures? For these, we developed the BioBag, that will keep vaccines at -20°C for up to 92 hours.

Made from flexible, non-combustible high-performance insulation based on silica aerogel, the BioBag can be used at temperatures of 2 to 8°C or -20°C, depending on vaccine to be transported.



## iCool BioBag

#### Isothermal Bag

for the transport of sensitive medication between the temperatures of 2 and 8°C or at -20°C



#### **Features**

#### THE FREEDOM TO TRAVEL

Designed for the transport of sensitive medications at a temperature between 2 to 8°C or -20°C for 92 hours

#### COOLING COMPARTMENT

keeps all your sensitive medication at a constant temperature. Includes 6 x 900g polymer gel packs

#### STORAGE SPACE

For the transport of large amounts of medication over long distances.
Useable space of 20 x 20 x 20cm (W x L x H)

#### **RECOMMENDED USES**

Blood samples, heat-sensitive drugs, serological samples, reagents, plasma, vaccines

Specially formulated polymer that stays frozen twice as long as a traditional ice packs

Can be used with -20°C MedActiv gel packs

Discover all the MedActiv solutions for the safe transport of medication www.medactiv.com

The iCool BioBag keeps contents at a temperature between 2 and 8°C for 92 hours. It can also be used for transporting products at -20°C.





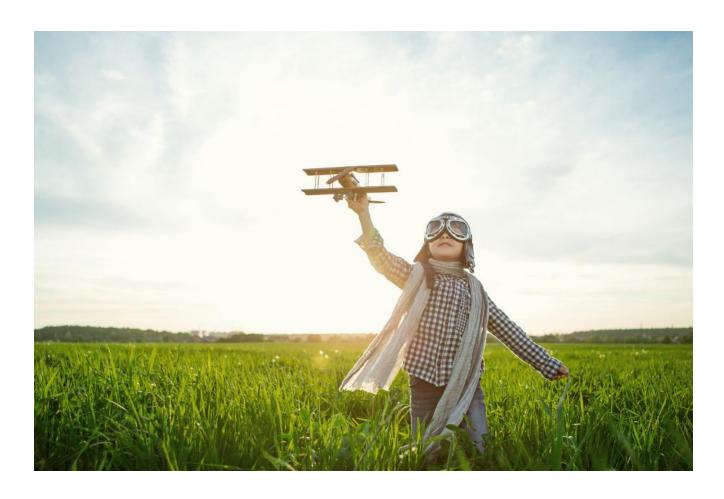
#### Technical specifications

- Weight: 7kg
- Dimensions: 300x 300 x 300mm
- Operating Environment: Temp:  $0 \,^{\circ}$  C ~ 32  $^{\circ}$  C, humidity: ≤85% RH
- Conditions for transport and storage: Temp:  $-20 \,^{\circ}\text{C} \sim 55 \,^{\circ}\text{C}$ , humidity  $< 95\% \, \text{RH}$





## Once a decade, a new technology breaks through and changes the game



Vaccines exposed to extreme temperatures very quickly loose their effectiveness. The perfect temperature for transport of most vaccines is between 2 and 8°C.

The MedActiv Vaccine Box is specially designed as a low cost device to carry large quantities of vaccines over a long period to fulfil the need for a solution for the "Last Mile". The World Health Organization (WHO) estimates that up to 47% of all vaccines are denatured during the "Last Mile" in developing countries. The MedActiv Vaccine Box is a portable medicine chest that will keep all contents between 2 and 8°C for 100 hours. It is designed for any medication requiring a constant and cool temperature.

The MedActiv Vaccine Box has a large cavity of 350 x 200 x 200 mm. It is light and portable and can be used anywhere, any time.

The MedActiv Vaccine Box will allow you to transport vaccines to the most areas in the world whilst ensuring that they are kept at exactly the right temperature.

In the words of Henry James, "It's time to start living the life you imagined".

### **Vaccine Box Pro**

#### **Isothermal Box**

for the transport of sensitive medication between the temperatures of 2 and 8°C



#### **Features**



100 HOURS BETWEEN 2 and 8°C
Designed for the transport of sensitive
medications at a temperature between
2 to 8°C for 100 hours

SLOWCOLD TECHNOLOGY INSIDE Specially formulated polymer that stays frozen twice as long as a traditional ice packs

CONSTANT TEMPERATURE keeps all your sensitive medication at a constant temperature. Includes 6 x 900g SlowCold gel packs

#### STORAGE SPACE

For the transport of large amounts of medication over long distances.
Useable space of 350 x 200 x 200mm (W x L x H)

#### RECOMMENDED USES

Insulin, growth hormones, adrenaline, monoclonal antibodies, vaccines, interferons, Anti-TNF medications

Discover all the MedActiv solutions for the safe transport of medication www.medactiv.com

The MedActiv Vaccine Box Pro keeps all your medication at a temperature between 2 and 8°C for 100 hours. Designed for the "Last Mile" transport of vaccines.





#### Technical specifications

- Weight: 9.5kg
- Dimensions: 580x 440 x 340mm
- Operating Environment: Temp:  $0 \,^{\circ} \,$
- Conditions for transport and storage: Temp:  $-20 \,^{\circ}\text{C} \sim 55 \,^{\circ}\text{C}$ , humidity  $< 95\% \, \text{RH}$





## Also available as an environmentally friendly disposable single-use product



The MedActiv SlowCold Vaccine Boxes are tailored for any use, even as a single-use throw-away product. The international delivery of the COVID-19 vaccine has brought to the fore the importance of being able to deliver limited amounts of vaccines to far flung areas of the world, where bilateral trade might not be possible. So we have developed a single-use version of the MedActiv Vaccine Box that is robust, easy to use and sealed from departure to arrival.

#### The MedActiv Environment Pledge

In the MedActiv language, the word «work» refers to the production of perfect products only. If we are not producing perfect goods, we are not «working». Our work ethic reflects not only on the products themselves, but also on our way of doing business. MedActiv promotes environmentally conscious business activities while working to conserve natural resources.

We have a sincere and dedicated conviction that the environment is our future. We focus on sound development and manufacturing practices, to promote conservation and good practices as they relate to all aspects of the medical industry and its manufacturing processes. All packaging material and printed material used by MedActiv is made from chlorine-free recycled material that is non-harmful to the environment.

### **Vaccine Box 101**

#### Single Use Isothermal Box

for the transport of sensitive medication between the temperatures of 2 and 8°C



#### **Features**

SlovyCold Rechnology Inside

100 HOURS BETWEEN 2 and 8°C Designed for the transport of sensitive medications at a temperature between 2 to 8°C for 100 hours

SLOWCOLD TECHNOLOGY INSIDE
Specially formulated polymer that stays
frozen twice as long as a traditional ice packs

CONSTANT TEMPERATURE keeps all your sensitive medication at a constant temperature. Includes 6 x 900g SlowCold gel packs

#### STORAGE SPACE

For the transport of large amounts of medication over long distances.
Useable space of 350 x 200 x 200mm (W x L x H)

#### RECOMMENDED USES

Insulin, growth hormones, adrenaline, monoclonal antibodies, vaccines, interferons, Anti-TNF medications

Discover all the MedActiv solutions for the safe transport of medication www.medactiv.com

The MedActiv Vaccine Box 101 keeps all your medication at a temperature between 2 and 8°C for 100 hours. Designed for the bulk transport of vaccines.





#### Technical specifications

- Weight: 8.5kg
- Dimensions: 580x 440 x 340mm
- Operating Environment: Temp:  $0 \,^{\circ} \,$
- Conditions for transport and storage: Temp:  $-20 \,^{\circ}\text{C} \sim 55 \,^{\circ}\text{C}$ , humidity  $< 95\% \, \text{RH}$





## I am vaccinated, thanks to MedActiv...







### Redefining the future

#### How the Vaccine Box works...

The MedActiv Vaccine Box uses SAP (Super Absorbant Polymers) that were specially developed by MedActiv as phase change materials. A phase change material (PCM) is a substance which releases sufficient energy at phase transition to provide useful cooling. The MedActiv gel packs will generate cold while transiting from solid to liquid format. They are frozen after 8 hours at -18°C but after 12 hours of freezing time they will enter a new phase and stay frozen for three times longer.

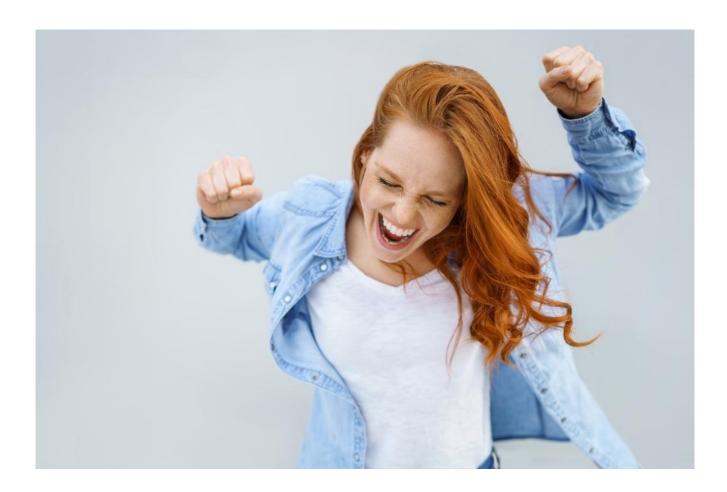
The MedActiv gel packs will stay frozen 3 times as long as normal gel packs and will restitute a flat temperature curve rather than a progressive one, thus ensuring a more stable temperature environment for the vaccines transported. They are compact, insensitive to motion or tilting, have no moving parts, and simply need to be frozen in a standard household refrigerator at -18°C for 12 hours.

We call this technology SlowCold™.



### Just imagine

#### if you could redefine the future of your industry



The worldwide delivery of the coronavirus vaccine will be one of the biggest logistics and transportation challenges ever. It will require cooperation between airlines, airports, health organizations and pharmaceutical companies for a global delivery schedule.

But it will also require cooperation between different sectors of industry, such as logistics, manufacturing, technology and healthcare providers.

As the worldwide leader in the development of solutions for thermo-sensitive medication, MedActiv is playing an important role in the management of COVID-19 vaccines worldwide.

"When we first imagined the world's smallest fridge back in 2008, we had not yet realized how important our business would become. Today I am proud that MedActiv is helping millions of people worldwide to live a better and easier life. The entire HealthWorks organization has now been re-focused on finding solutions for the transport and delivery of the COVID-19 vaccine.

We have made our choice... Have you?"

Uwe DIEGEL CEO, HealthWorks Corporation



My name is samantha.

I am ten years old.

I miss playing with my friends at school. We've all been locked up for such a long time because of the coronananavirus.

I understand that we all have to try to do our best to get rid of the virus, but I'm still sad sometimes because I miss my friend Irina the most.

My favorite things are the songs
I make up on the piano, my big
sister's giggles, and my mom's
voice when she reads us stories.

I hope that one day they will find a cure for the coronaravirus, but right now I don't think about that.

I'm too busy being happy...

### ABOUT MEDACTIV

MedActiv is an innovative company that is a global leader in the development of transport and storage solutions for sensitive medication. Our products are designed to give users the freedom to travel knowing that their medications are kept at exactly the right temperature.

The MedActiv solutions are specially designed to bring added value to the medications they are made for. Strategically located in Paris, we have the reputation of always anticipating the needs of our customers with an approach that is based on the total satisfaction of the end-user of the medication.

Our team of experts includes physicians, patients and engineers who are dedicated to finding better solutions for the transport and storage of sensitive medication.

# Exceeding your expectations for the transport and storage of medications

For Uwe DIEGEL, creator of MedActiv, the company represents a personal investment. "In 2008, my brother almost died following an incident where his medication was accidentally frozen in a hotel. So I started this company because of reasons that are more of a personal nature than just business. MedActiv is for me the ultimate expression of innovation at the service of healthcare. If the MedActiv products are so popular, it is because they are designed by patients for

patients and because we speak directly with users of the medications to really understand their needs".

#### The MedActiv Mission

MedActiv challenges benchmarks in the thermo-sensitive medication sector. We manufacture and market innovative solutions for the storage and distribution of thermosensitive medications.

#### The MedActiv Vision

A future where users of medication are not hampered by intrinsic limitations dictated by their health condition. A future where users are allowed the freedom to take responsibility for their health by using the correct tools for health management.

#### For more information, please contact:

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## BON VOYAGE!

