



**PRODUCT  
CATALOGUE**

HYPURE<sup>®</sup> OILS &  
MICRO TOOLS

**Quality Results**  
for life

***KITAZATO***<sup>®</sup>

**PRODUCT  
CATALOGUE**

HYPURE<sup>®</sup> OILS &  
MICRO TOOLS

**HYPURE®  
OILS**

## HYPURE® OILS:

**Maintenance of a stable culture environment is advantageous when attempting to minimize environmental perturbations within the culture system that may negatively impact the developing embryo.**

- Pre-washed paraffin oils are used as protective barrier to prevent the quick evaporation of the medium and to keep specimens safe from external contaminants during in-vitro culture.
- Hypure® Oils, the pre-washed paraffin oils with less endotoxin levels in the market, play an important role maintaining the stability of the embryo culture system in terms of temperature, pH and osmolality.



### Paraffin or Mineral Oil?

Mineral and paraffin oils are commonly used to overlay IVF media to maintain their stability throughout embryo culture, but their quality can vary greatly.

**Mineral oil is less refined than paraffin oil, so, it contains more unsaturated bonds and is more sensitive to photooxidation and peroxidation<sup>(1)</sup>.**

High levels of peroxides in oils may have a detrimental effect on fertilization and embryo development, so the choice of culture oil is extremely important as it has a direct effect on clinical outcomes.

**Kitazato Hypure® oil is a high-quality paraffin oil.**

It is pre-washed with ultra-pure water to reduce toxicity and remove endotoxins, therefore improving your clinical outcomes.

Furthermore, washing and saturating oils with ultra-pure water reduces the evaporation rate of the media and the consequent change in osmolality.

1. Elder Key and Bw 2015.

## HYPURE® OILS

### HYPURE® OIL: **HEAVY / LIGHT**

Hypure® Oils are available with different density and viscosity to better suit laboratory needs. Since both are highly efficient in maintaining media stability, each laboratory could be able to make its own choice of which oil to use for each procedure.

### HYPURE® OIL: **LIGHT**

Hypure® Oil Light's fluidity provides an easier pipetting experience. Culture dishes need to equilibrate before use and with light oil this is achieved quicker than with heavy oils, due to a lighter viscosity and density.

Suited to be stored at room temperature, Hypure® Oil Light allows reaching an incubation temperature and equilibration in a shorter period of time.



### HYPURE® OIL: **HEAVY**

Hypure® Oil Heavy is the perfect choice for processes that require an oil overlay that allows easy handling of the culture dishes with a reduced risk of spills or droplet mixing.

Due to its higher density and viscosity, Hypure® Oil Heavy provides extensive protection and insulation of gametes and embryos, especially during an extended culture or when using time lapse and/or dry incubators.

## Main characteristics

- Pharmaceutical grade high-quality paraffin oil
- Prevents the evaporation of media allowing the usage of small volume droplets
- Maintains stable osmolality and pH in culture medium
- Glass or PETG bottles available in different sizes
- Hypure® Oil Light is double-washed, allows easy pipetting and a quicker equilibration
- Hypure® Oil Heavy is aimed for longer incubation periods in dry incubators

## HYPURE® OIL HEAVY

### THE BEST OPTION FOR CULTURE IN DRY INCUBATOR

A comparative study assessed the performance of our Hypure® Oil Heavy versus most popular oils in the market. This study, performed by Embryotools, evaluates its manipulation, physicochemical properties, and its effects on the stabilization of culture conditions and embryo development.

They have concluded that **Hypure® Oil Heavy:**



Its high viscosity increases security against medium droplets breaking/fusing and oil spillage during dish transportation/handling



Is suitable for extended culture without replacement of dish



Has the highest capacity to prevent evaporation when cultured in dry incubator



Provides better embryo development and cell count rates



Maintains lowest osmolality after seven days of culture



Maintains the temperature and pH of the drops after a long period of time outside the incubator

## Benefits of using Hypure® Oils Heavy in dry incubators

- High osmolality in embryo culture has been related to development arrest, changes in gene expression, epigenetic alterations, and **overall worse clinical outcomes**
- A high viscosity oil is the best alternative for dry incubators as it can maintain the stability of the embryo culture better
- It allows easy handling with a **reduced risk of spills or droplet mixing**
- It's highly recommended for **single step culture media without dish replacement**
- It **improves the overall success of IVF**, allowing routine elective single ET and thereby yielding ideal perinatal outcomes

**Dr. Marcos Meseguer**

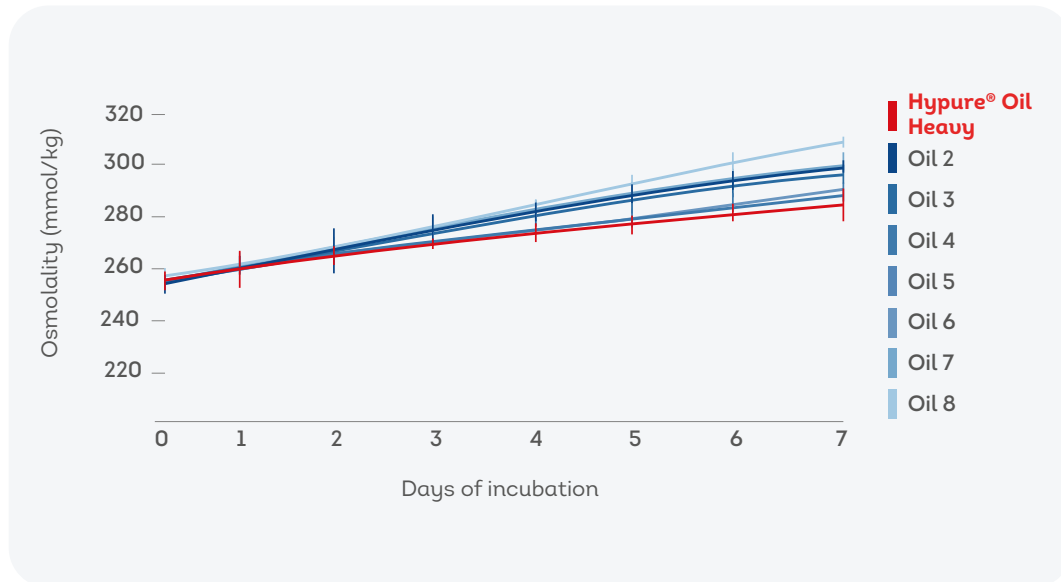
Senior Embryologist & Scientific Supervisor  
IVIRMA

## HYPURE® OILS

### HYPURE® OIL HEAVY:

#### The Lowest Osmolality During Incubation in Dry Benchtop Incubator

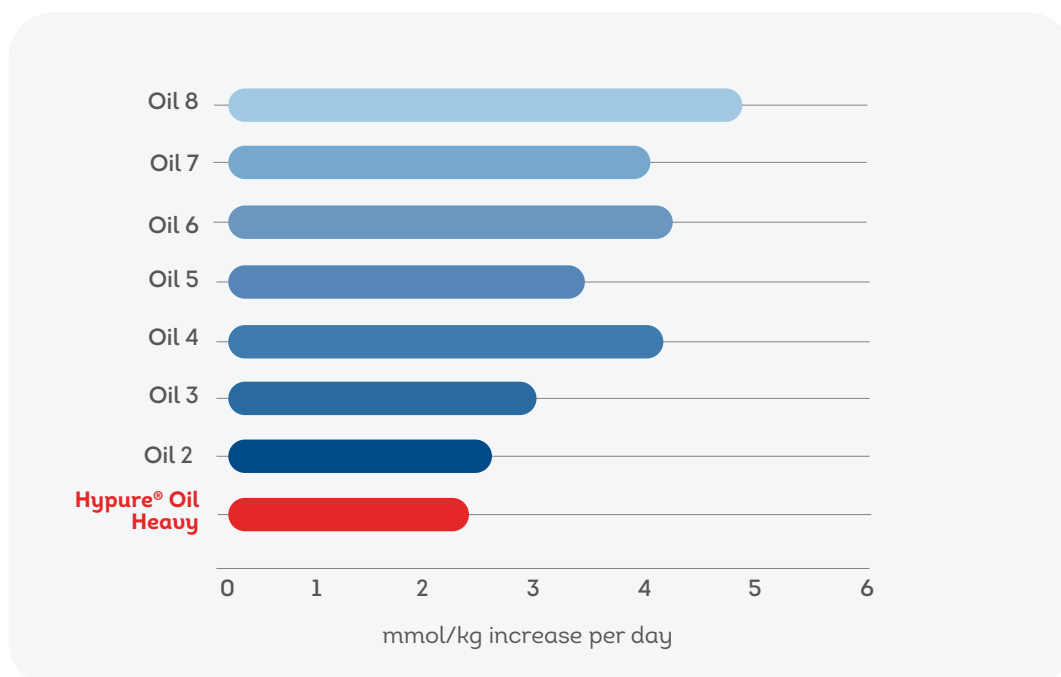
Hypure® Oil Heavy improves embryo development rates and cellular count and offers better pH stability and lower osmolality ( $273.0 \pm 5.7$  mmol/kg after seven days) than other commercial oils.



### HYPURE® OIL HEAVY:

#### The Lowest Osmolality Increase per Day

The daily evaporation rate was significantly lower for Hypure® Oil Heavy (+2.224 mmol/kg/day) than for other oils.

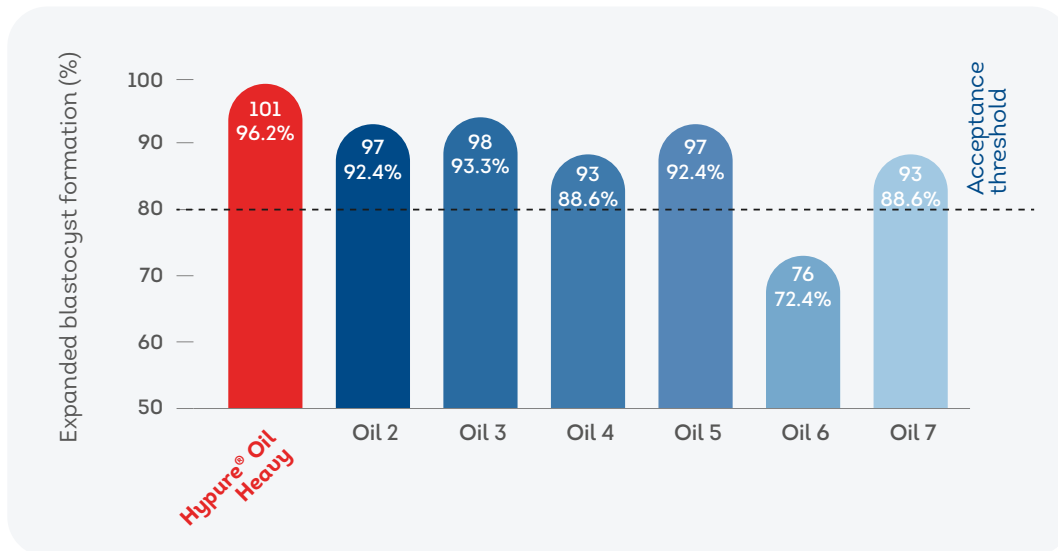




## HYPURE® OIL **HEAVY**:

### The Best Expanded Blastocyst Formation Rates

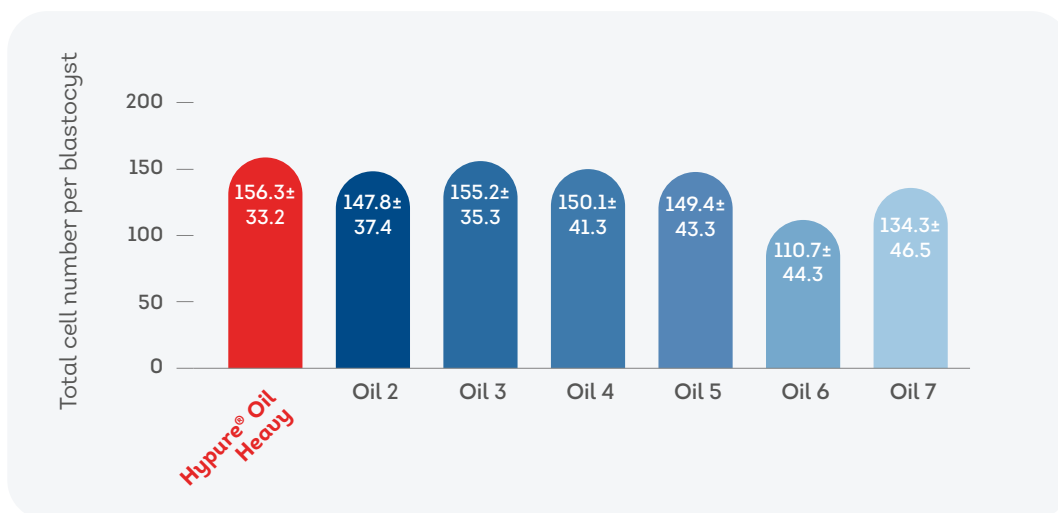
A 96.2% of the mouse embryose cultured under Kitazato Hypure® Oil Heavy reached the expanded blastocyst stage by the 120h end-point. Kitazato Hypure® Oil Heavy resulted in the highest number of blastocysts produced, compared to the rest of groups.



## HYPURE® OIL **HEAVY**:

### The Highest Total Cell Number per Blastocyst

The mouse blastocysts obtained after culture with Hypure® Oil Heavy showed the highest mean number of cells compared to the rest of groups. The total cell number per embryo is a quantitative measure of embryo quality.



Read the highlights about the Hypure® Oil Heavy study here:



# PRODUCT REFERENCES



## HYPURE® OIL

### Hypure® Oil **Heavy**

Order Number	Code	Specifications	Volume (ml)
96011	MOHVD-100P	PETG Bottle	100
96015	MOHVD-500P	PETG Bottle	500
96010	MOHVD-100	Glass Bottle	100
96014	MOHVD-500	Glass Bottle	500

### Hypure® Oil **Light**

Order Number	Code	Specifications	Volume (ml)
96001	MOLHD-100P	PETG Bottle	100
96005	MOLHD-500P	PETG Bottle	500
96000	MOLHD-100	Glass Bottle	100
96004	MOLHD-500	Glass Bottle	500

---

# **MICRO TOOLS**

## MICRO TOOLS

# MICRO TOOLS

High quality micromanipulation pipettes that offer an accurate and precise manipulation of gametes and embryos for ART and PGT.

Co-developed and designed together with major clinics in Japan, Kitazato Micro Tools are handcrafted by highly skilled professionals.



## Main Features

### HIGH QUALITY

and consistency

### PRECISE MANIPULATION

for ART and PGT

### STRICT QUALITY CONTROL

with individual inspection of each pipette

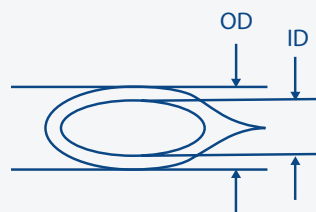
### PACKAGED INDIVIDUALLY

in easy-to-open color-coded containers

## ICSI INJECTION PIPETTES

**For intracytoplasmic injection of sperm inside the oocyte.**

For a precise injection of the sperm inside of the oocyte minimizing damage and allowing a smooth handling.



## Main characteristics

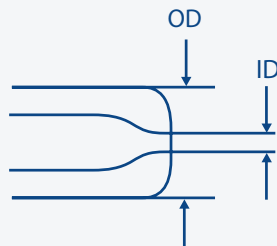
- Spiked tip to minimize damage to oocyte
- Smooth handling of sperm and cytoplasm
- Available with long or short parallel walls
- Three different internal diameters: 4.0-4.5  $\mu\text{m}$ , 4.5-5.0  $\mu\text{m}$  and 5.0-5.5  $\mu\text{m}$
- Two different angle options: 30° and 35°
- Tip to elbow length range: from 0.50 mm to 1 mm

## MICRO TOOLS

### HOLDING PIPETTES

**For holding oocyte, embryo or blastocyst during intracytoplasmic sperm injection or PGT techniques.**

High stability during ICSI and PGT micromanipulations when a reliable steadiness of oocytes or embryos is needed.



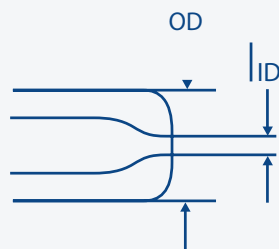
### Main characteristics

- Smooth polished tip
- High level of control of specimen
- Different diameters available for different techniques
- Smaller diameter ideal for holding an oocyte
- Larger diameter ideal for embryo biopsy procedures
- Tip to elbow length range: from 0.50 mm to 1 mm

## BIOPSY PIPETTES

**For removing a blastomere cell, trophoctoderm cells or polar body for preimplantation genetic testing.**

Specially designed and polished to minimize damage and protect cell membrane during PGT procedures.



## Main characteristics

- Flat tip design to minimize damage to cell membrane
- Pipette tips are specially polished to protect cell membrane
- Internal diameter range: from 15  $\mu\text{m}$  to 35  $\mu\text{m}$
- 15  $\mu\text{m}$  for polar body biopsy
- 25  $\mu\text{m}$  for trophoctoderm biopsy
- 30 to 35  $\mu\text{m}$  for blastomere biopsy

# PRODUCT REFERENCES

## ICSI INJECTION PIPETTES

Long Parallels Walls "Slim Type"



Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Length (cm)
95204	MT-INJ-1S45-30	4.0-4.5	30	0.50
95205	MT-INJ-1S45-35	4.0-4.5	35	0.50
95206	MT-INJ-1L45-30	4.0-4.5	30	1.00
95207	MT-INJ-1L45-35	4.0-4.5	35	1.00
95234	MT-INJ-1S50-30	4.5-5.0	30	0.50
95235	MT-INJ-1S50-35	4.5-5.0	35	0.50
95236	MT-INJ-1L50-30	4.5-5.0	30	1.00
95237	MT-INJ-1L50-35	4.5-5.0	35	1.00
95264	MT-INJ-1S55-30	5.0-5.5	30	0.50
95265	MT-INJ-1S55-35	5.0-5.5	35	0.50
95266	MT-INJ-1L55-30	5.0-5.5	30	1.00
95267	MT-INJ-1L55-35	5.0-5.5	35	1.00

Short Parallels Walls



Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Length (cm)
95200	MT-INJ-2S45-30	4.0-4.5	30	0.70
95201	MT-INJ-2S45-35	4.0-4.5	35	0.70
95202	MT-INJ-2L45-30	4.0-4.5	30	1.00
95203	MT-INJ-2L45-35	4.0-4.5	35	1.00
95230	MT-INJ-2S50-30	4.5-5.0	30	0.70
95231	MT-INJ-2S50-35	4.5-5.0	35	0.70
95232	MT-INJ-2L50-30	4.5-5.0	30	1.00
95233	MT-INJ-2L50-35	4.5-5.0	35	1.00
95260	MT-INJ-2S55-30	5.0-5.5	30	0.70
95261	MT-INJ-2S55-35	5.0-5.5	35	0.70
95262	MT-INJ-2L55-30	5.0-5.5	30	1.00
95263	MT-INJ-2L55-35	5.0-5.5	35	1.00



# PRODUCT REFERENCES

## HOLDING PIPETTES

Order Number	Code	Inner Diameter (µm)	Outer Diameter (µm)	Tip Bend Angle (°)	Tip to Elbow Length (mm)
95310	MT-HD-90-30	15-20	90	30	0.60
95311	MT-HD-90-35	15-20	90	35	0.60
95300	MT-HD-100-30	15-20	100	30	0.60
95301	MT-HD-100-35	15-20	100	35	0.60
95302	MT-HD-120-30	15-20	120	30	0.60
95303	MT-HD-120-35	15-20	120	35	0.60
95360	MT-HD-120W-30	25-30	120	30	0.60
95361	MT-HD-120W-35	25-30	120	35	0.60

## BIOPSY PIPETTES

### Blastomere Biopsy

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Tip Shape
95350	MT-BPBM-25-30	25	30	Flat
95351	MT-BPBM-25-35	25	35	Flat
95352	MT-BPBM-30-30	30	30	Flat
95353	MT-BPBM-30-35	30	35	Flat
95354	MT-BPBM-35-30	35	30	Flat
95355	MT-BPBM-35-35	35	35	Flat

### Polar Body Biopsy

Order Number	Code	Inner Diameter (µm)	Tip Bend Angle (°)	Tip Shape
95370	MT-BPPD-30	15	30	Flat
95371	MT-BPPD-35	15	35	Flat

## PZD PIPETTES

Order Number	Code	Tip Bend Angle (°)
95400	MT-PZD-30-55	30
95401	MT-PZD-35-55	35

TRAINING  
**PROGRAM**

# OUR GREATEST ACHIEVEMENT IS FOR YOU **TO OBTAIN THE BEST CLINICAL RESULTS**

Kitazato has spent over a decade investing in training and workshops around the world. Thousands of embryologists have learned the Tips & Tricks of the Kitazato Vitrification, whether at conferences, on visits to clinics, or at our reference support centers and training facilities.

We know that **The Cryotop® Method** offers the best survival results on the market, and we are committed to helping you achieve this. To do so, our trainings are always led by experienced professionals, belonging to some of the most renowned clinics in the world, supported by our team of specialized embryologists.

During our trainings, we reinforce the learning process by starting with a theoretical session followed by a hands-on one in which trainers share valuable knowledge and experiences from their daily routines that will help you master **The Cryotop® Method**. We guarantee that no question will go unanswered.

**8**

Hands-on  
workshops  
regularly led in  
8 countries

**+5,000**

Embryologists  
trained  
worldwide

**+15**

Years  
investing in  
training &  
workshops



**KITAZATO CORPORATION**  
100-10 Yanagishima, Fuji  
Shizuoka 416-0932 Japan  
Tel +81 545-65-7122  
Fax +81 545-65-7128  
contact@kitazato.co.jp

## Dibimed

**DIBIMED**  
C/ Jorge Comín, 3 Bajo 1-2  
46015 Valencia, Spain  
Tel +34 96 305 63 95  
Fax +34 96 305 63 96  
info@dibimed.com  
Official Representative of Kitazato

