OVOIL™

- 100% paraffin oil of highest quality.
- Extensively tested.
- Confirmed excellent embryo development.

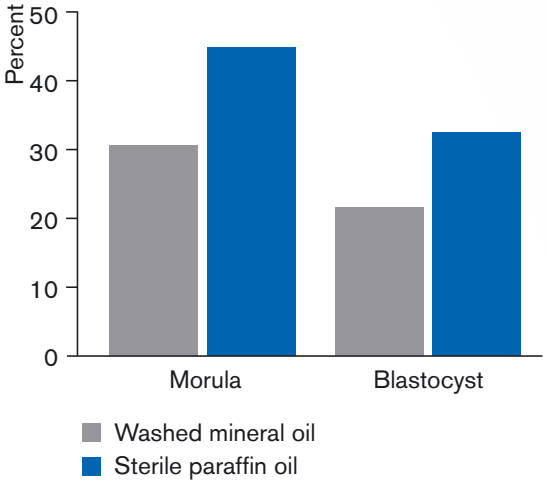
The importance of oil for IVF outcome

Most clinics today use oil to cover embryo culture dishes in order to maintain stable temperature, osmolality and pH. The quality of such oil plays a very important role for IVF success. The oil types commonly used are mineral oil, paraffin oil or a mixture of both these oil types.

Paraffin oil and mineral oil are chemically slightly different. The polycarbon lipid tail of mineral oil contains more unsaturated bonds than the more saturated paraffin oil. This makes mineral oil more unstable and prone to attack by free oxygen radicals and photo-oxidation than stable paraffin oil.

In a study by Tae et al. published in 2006, bovine embryo development was studied in cultures overlaid with either washed mineral or sterile paraffin oil, Fig 1.

Embryo development under different oil types



Comparison Mineral oil and paraffin oil
Sterile filtered paraffin oil overlay resulted in significantly higher ($p < 0.05$) development rate to morula (44.8% versus 30.6%) and blastocyst (32.8% versus 21.7%) than washed mineral oil.

REF: Tae, J.C. et al. J. Assist Reprod & Gen. 2006

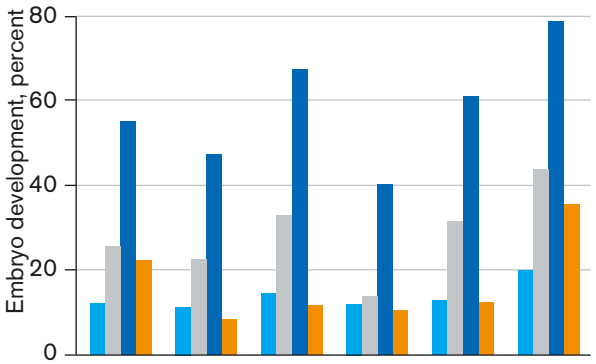
Vitrolife

SUPERIOR EMBRYO VIABILITY WITH OVOIL™

Oil is not just oil

Oils from 6 different manufacturers were tested and embryo development and viability was evaluated. Fig 1 and Fig 2. OVOIL™ showed significantly better development ($p<0.01$) for all embryo viability parameters studied, number of cells in the trophectoderm and in the inner cell mass, and total number of cells in the blastocysts.

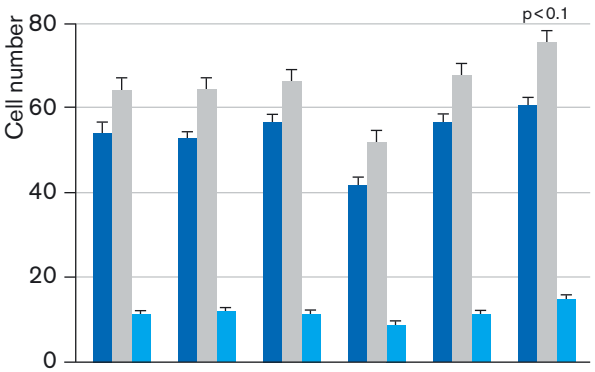
Fig 2. Embryo development



	Cook	Medicult	Sage	Sigma	Irvine	Vitrolife
Day 3	12.1	11.2	14.3	11.7	12.6	19.9
Day 4	25.3	22.6	32.8	13.6	31.2	44.0
Day 5	54.7	47.1	67.4	40.2	61.8	78.7
Day 5 hatching	22.4	8.2	11.6	10.2	12.0	35.7
	N=99	N=97	N=98	N=96	N=97	N=97

REF: D. Linck, SIRT, Australia. 2008.

Fig 3. Embryo viability



	Cook	Medicult	Sage	Sigma	Irvine	Vitrolife
Trophectoderm	54	53	57	42	57	61
Total	65	65	67	52	68	76
ICM	11	12	11	9	12	15
%ICM	17%	18%	16%	18%	17%	20%
	N=99	N=97	N=98	N=96	N=97	N=97

REF: D. Linck, SIRT, Australia. 2008.

Extensive quality testing

OVOIL™ is an extensively quality tested product:

- **Sperm sensitivity testing**
- **1-cell mouse embryo assays**
  - Sensitive CF1 mouse strain on raw material
  - 1 cell, F1 hybrid mouse on finished product
  - Mouse embryo assays with multiple endpoints for grading development
  - Blastocyst differentiation staining and cell counts

➲ To learn more about OVOIL™, please check our website at www.vitrolife.com

Vitrolife

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