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|-------------------------------|--|--|--|--|--|--|
| 01<br>Corrosivity test        | 01<br>Vitrolife-skin™                              | NIHS & JSAAE<br>●  | JaCVAM<br>●  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | Jun. 2008<br>●   | Aug. 2008<br>●   |
|                               | 02<br>EpiSkin™, EpiDerm™, SkinEthics™, epiCS®      | EURL ECVAM<br>●  | EURL ECVAM & ICCVAM<br>●   | OECD TG No. 431<br>●   | 2017年5月<br>●   | 2017年6月<br>●   |
|                               | 03<br>Transcutaneous Electricial Resistance        | EURL ECVAM<br>●  | EURL ECVAM & ICCVAM<br>●   | OECD TG No. 430<br>●   | <span style="color: yellow;">●</span>  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 04<br><i>In vitro</i> membrane barrier test method | EURL ECVAM<br>●  | EURL ECVAM & ICCVAM<br>●   | OECD TG No. 435<br>●   | <span style="color: yellow;">●</span>  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 05<br>LabCyte EPI                                  | J-TEC<br><span style="color: yellow;">●</span>   | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
| 02<br>Phototoxicity           | 01<br>3T3 NRU                                      | COLIPA/<br>EURL ECVAM<br>●   | NIHS<br>●  | OECD TG No. 432<br>●   | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 02<br>Yeast-RBC assay                              | NIHS & JSAAE<br>●  | JaCVAM<br>●  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | Jan. 2010<br>●   | Reservation<br>●   |
|                               | 03<br>ROS  | NIHS & JPMA<br>●   | JaCVAM<br>●  | ICH S10<br>●   | Nov. 2015<br>●   | Jan. 2016<br>●   |
| 03<br>Skin sensitization test | 01<br>LLNA   | Not done<br><span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | ICCVAM<br>●  | OECD TG No. 429<br>●   | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 02<br>rLLNA  | EURL ECVAM & ICCVAM<br>●   | ICCVAM<br>●  | OECD TG No. 429<br>●   | Jul. 2012<br>●   | Dec. 2012<br>●   |
|                               | 03<br>LLNA:DA                                      | NIHS & JSAAE<br>●  | JaCVAM or ICCVAM<br>●  | OECD TG No. 442A<br>●  | Oct. 2012<br>●   | Dec. 2012<br>●   |
|                               | 04<br>LLNA:BrdU-ELISA                              | NIHS & JSAAE<br>●  | JaCVAM or ICCVAM<br>●  | OECD TG No. 442B<br>●  | Oct. 2012<br>●   | Dec. 2012<br>●   |
|                               | 05<br>h-CLAT                                       | NIHS & EURL ECVAM<br>●   | EURL ECVAM<br>●  | OECD TG No. 442E<br>●  | Mar. 2017<br>●   | Mar. 2017<br>●   |
|                               | 06<br>DPRA   | EURL ECVAM<br>●  | EURL ECVAM<br>●  | OECD TG No. 442C<br>●  | Feb. 2015<br>●   | Mar. 2015<br>●   |
|                               | 07<br>KeratinoSense                                | EURL ECVAM<br>●  | EURL ECVAM<br>●  | OECD TG No. 442D<br>●  | Apr. 2015<br>●   | Jul. 2015<br>●   |
|                               | 08<br>IL-8 Luc assay                               | METI & JSAAE<br>●  | JacVAM<br>●  | Draft TG<br><span style="color: yellow;">●</span>  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 09<br>U-SENS™                                      | Loreal<br>●  | EURL ECVAM<br>●  | Draft TG<br><span style="color: yellow;">●</span>  | <span style="color: yellow;">●</span>  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
|                               | 10<br>ADRA   | JCIA & JSAAE<br><span style="color: yellow;">●</span>  | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> | <span style="border: 1px solid black; border-radius: 50%; width: 10px; height: 10px; display: inline-block;"></span> |
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| 04<br>Skin irritation        | 01<br>LabCyte EPI-MODEL24                  | NIHS<br>●                | OECD<br>●                | OECD TG No. 439<br>●                | Jun. 2013<br>●                     | Dec. 2013<br>●               |
|                              | 02<br>Episkin, EpiDerm and SkinEthic       | EURL ECVAM<br>●          | EURL ECVAM<br>●          | OECD TG No. 439<br>●                | Mar. 2013<br>●                     | Mar. 2013<br>●               |
| 05<br>Skin absorption test   | 01<br><i>in vitro</i> Skin absorptopm teat | ○                        | OECD<br>●                | OECD TG No. 428<br>●                | Oct. 2013<br>●                     | Jan. 2014<br>●               |
| 06<br>Ocular irritation test | 01<br>BCOP                                 | EURL ECVAM & ICCVAM<br>● | EURL ECVAM & ICCVAM<br>● | OECD TG No. 437<br>●                | Oct. 2013<br>●                     | Jan. 2014<br>●               |
|                              | 02<br>ICE                                  | EURL ECVAM & ICCVAM<br>● | EURL ECVAM & ICCVAM<br>● | OECD TG No. 438<br>●                | Oct. 2014<br>●                     | Jan. 2015<br>●               |
|                              | 03<br>FL                                   | EURL ECVAM & ICCVAM<br>● | EURL ECVAM<br>●          | OECD TG No. 460<br>●                | Oct. 2012<br>●                     | Dec. 2012<br>●               |
|                              | 04<br>CM                                   | EURL ECVAM<br>●          | EURL ECVAM<br>●          | Draft TG<br>●                       | ●                                  | ○                            |
|                              | 05<br>STE                                  | NIHS & Kao<br>●          | ICCVAM<br>●              | OECD TG No. 491<br>●                | Jan. 2016<br>●                     | Mar. 2016<br>●               |
|                              | 06<br>SIRC-CVS                             | NIHS & Shiseido<br>●     | On going<br>●            | ○                                   | ○                                  | ○                            |
|                              | 07<br>MATREX                               | NIHS<br>●                | ○                        | ○                                   | ○                                  | ○                            |
|                              | 08<br>EpiOcular-EIT                        | COLIPA & EURL ECVAM<br>● | EURL ECVAM<br>●          | OECD TG No. 492<br>●                | Jul. 2016<br>●                     | Jan. 2017<br>●               |
|                              | 09<br>SkinEthics                           | Loreal<br>●              | EURL ECVAM<br>●          | OECD TG No. 492<br>●                | ○                                  | ○                            |
|                              | 10<br>Vitrigel-EIT                         | MAFF<br>●                | On going<br>●            | ○                                   | ○                                  | ○                            |
|                              | 11<br>LabCyte Cornea-model24 EIT           | JSAAE<br>●               | On going<br>●            | ○                                   | ○                                  | ○                            |
|                              | 12<br>OECD TG No.405 (2012)                | ○                        | ICCVAM review<br>●       | OECD TG No. 405<br>●                | Oct. 2013<br>●                     | Jan. 2014<br>●               |
| 07<br>Genotoxicity test      | 01<br>OECD TG No.473,476,487,490           | ○                        | ○                        | OECD TG No. 473, 476, 487, 490<br>● | NIHS<br>●                          | ○                            |
|                              | 02<br><i>In vitro comet assay</i>          | NIHS<br>●                | ○                        | ○                                   | ○                                  | ○                            |
|                              | 03<br><i>In vivo comet assay</i>           | NIHS<br>●                | OECD<br>●                | OECD TG No. 489<br>●                | ○                                  | ○                            |
|                              | 04<br>Micronucleus test using EPiDerm      | COLIPA & EURL ECVAM<br>● | ○                        | ○                                   | ○                                  | ○                            |
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| 08<br>Acute oral toxicity test  | 01<br>Cytotoxicity Test (estimate starting doses for acute oral systemic toxicity tests) | EURL ECVAM & ICCVAM<br>● | ICCVAM<br>●               | OECD GD No. 129<br>●           | Apr. 2011<br>●                     | Jun. 2011<br>●               |
|   | 02<br>Cytotoxicity Test (LD50 ≥ 2000mg/Kg)   | EURL ECVAM<br>●          | EURL ECVAM<br>●           | EURL ECVAM recommendation<br>● | On going<br>●                      | ○                            |
| 09<br>Endocrine disrupter screening   | 01<br>ER-STTA (agonist)(antagonist)  | METI & MHLW<br>●         | OECD<br>●                 | OECD TG No.455<br>●            | Dec. 2016<br>●                     | Dec. 2016<br>●               |
|   | 02<br>BG1 Luc ERTA   | ICCVAM<br>●              | ICCVAM<br>●               | OECD TG No. 455<br>●           | Oct. 2013<br>●                     | Jan. 2014<br>●               |
|   | 03<br>CCi  | ICCVAM<br>●              | ○                         | ○                              | ○                                  | ○                            |
|   | 04<br>MELN   | EURL ECVAM<br>●          | ○                         | ○                              | ○                                  | ○                            |
|   | 05<br>AR-Ecoscreen   | METI & MHLW<br>●         | OECD<br>●                 | OECD TG458<br>●                | ○                                  | ○                            |
|   | 06<br>CERI In Vitro Estrogen Receptor Binding Assay                                      | EPA, CERI<br>●           | OECD<br>●                 | OECD TG493<br>●                | ○                                  | ○                            |
| 10<br>Embryonic toxicoty scrneeing  | 01<br>Hand1-Luc Assay  | METI<br>●                | JaCVAM<br>●               | ○                              | ○                                  | ○                            |
| 11<br>Metabolism  | 01<br>CYP induction method   | EURL ECVAM<br>●          | EURL ECVAM<br>●           | Draft TG<br>●                  | On going<br>●                      | ○                            |
| 12<br>Immune toxicity test  | 01<br>MITA   | Tohoku univ.<br>●        | ○                         | ○                              | ○                                  | ○                            |
| 13<br>Cell transformation assay for the screening of carcinogenic activity of chemicals | 01<br>Bhas   | NEDO<br>●                | EURL ECVAM<br>●           | Draft Guidance<br>●            | On going<br>●                      | ○                            |
|   | 02<br>SHE  | EURL ECVAM<br>●          | EURL ECVAM<br>●           | Draft Guidance<br>●            | On going<br>●                      | ○                            |
|   | 03<br>Balb   | EURL ECVAM<br>●          | EURL ECVAM<br>●           | Suspended<br>●                 | ○                                  | ○                            |
| 14<br>Pyrogen screening test  | 01<br>In Vitro PBMC  | EURL ECVAM<br>●          | EURL ECVAM or ICCVAM<br>● | Ph. Eur.<br>●                  | 2010年12月<br>●                      | Suspended<br>●               |
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