## Elma solutions for the cleaning of watches and clocks

Cleaning chemicals developed and produced by Elma



elma unimix Ready-for-use lubricant for vibration mode

elma spirol

All products available in

Ready-for-use degreaser for balance wheels and hairsprings

reinigungs-konzentrat
1:9

Chrono
Chr

elma chrono clean 1:20 Cleaning concentrate for watches/clocks

elma reinigungskonzentrat 1:9

Cleaning solution for disassembled watches/clocks

## elma reinigungslösung wf pro

Ready-for-use cleaning solution

elma unisol Lubricant concentrate for complete lubrication

|                             | aqueous cleaning concentrates<br>suitable for use in ultrasonic bath   |  | non-aqueous solutions  |  |  |   |  |
|-----------------------------|--|--|--|--|--|---|--|
|                             |  |  | for cleaning   | for rinsing  | for degreasing   | for lubricatin  |  |
| Elma watch/clock<br>cleaner | elma reinigungskonzentrat 1 : 9  | chrono clean 1 : 20  | elma wf pro  | elma suprol pro  | elma spirol  | elma unimix   | elma unisol  |
|                             | cleaning concentrate • aqueous   | ultrasonic cleaning<br>concentrate<br>• aqueous  | cleaning solution     non-aqueous     ready for use  | rinsing solution • non-aqueous • ready for use   | degreasing solution • non-aqueous • ready for use  | • non-aqueous • ready for use   | lubricant • non-aqueous • ready for use  |
| Application                 | aqueous cleaning of<br>dissassembled watches/<br>clocks, e.g with ultrasound<br>after rotation or vibration<br>mode. | Cleaning of disas-<br>sembled watches/clocks,<br>components.<br>Resin remains, traces of<br>rust are removed: Brass<br>and copper-containing<br>alloys are brightened. | Non-aqueous cleaning<br>for mechanic watches<br>in watch cleaning<br>machines. Cold cleaner<br>for the removal of resin<br>remains, for cleaning<br>and brightening. | Rinsing solution for<br>the rinsing without<br>remains in watch<br>cleaning machines<br>for non-aqueous<br>cleaning. Water-dis-<br>placing after cleaning<br>in aqueous solution,<br>eg. 1:9 or chrono<br>clean 1:20 | Immerse and wave<br>balance wheels and<br>hairsprings in elma<br>spirol in a tank of little<br>volume. | Lubricant for the relubrication of cleaned watches and precision parts. | lubricant for the oiling of watch/ clockworks and other mechanic precision components. |
| Features                    | liquid, ammoniacal,<br>emulsifying.<br>pH value: 10.5<br>alkaline  | liquid,<br>emulsifying.<br>pH value: 8.5<br>neutral  | liquid, without CKW,<br>Few aromatic com-<br>pounds, emulsifying.  | liquid, without CKW, few aromatic compounds.   | liquid, without CKW,<br>few aromatic com-<br>pounds.   | liquid, without CKW,<br>few aromatic com-<br>pounds.                    | liquid, few aromatic compounds.  |
| Dosing                      | ultrasound:<br>9 %<br>= 90 ml/l<br>or 1 : 9  | ultrasound:<br>5 %<br>= 50 ml/l<br>or 1 : 20   | ready for use  | ready for use  | ready for use  | ready for use   | ready for use or<br>shake vigorously with<br>suprol spezial,<br>mix 1:33               |
| Period/<br>temperature      | ultrasound:<br>3-10 min.<br>room temperature   | ultrasound:<br>5-15 min.<br>up to 75°C   | 3-12 min.<br>room temperature  | ca. 3 min.<br>room temperature   | ca. 3 min.<br>room temperature   | ca. 3 min.<br>room temperature  | ca. 3 min.<br>room temperature   |

