1. DESCRIPTION
- Dual cure, polymer screen emulsion; red
- Dichromate-sensitized photo emulsion for laser or conventional photo engraving
- The ready to print screens can be polymerized by heat 180-190°C (356-374°F) to obtain mechanical and chemical resistance
- Very high mechanical and chemical resistance
- Developed for conventional, laser, digital (wax and ink jet) and DLE engraving
- Optimum resolution for fine lines and half-tones

2. APPLICATIONS ADVANTAGES
- Solids content before sensitizing: 34%
- Excellent adhesion to nickel screens
- Excellent water- and solvent resistance

3. SENSITIZING AND MIXING
- Dissolve the dose of Dichromate preferably with demineralised water, filling half bottle and shake vigorously
- For top to bottom coating, single squeegee, mix 1 kg of 1091, 200 grams of Dichromate and 250 grams of demineralized water
- For bottom to top coating and double squeegee top to bottom, mix 1 kg of 1091 and 200 grams of Dichromate
- Use the emulsion after 12 hours from mixing to enable air bubbles to escape
- For best results, use sensitized emulsion within 48 hours

4. SCREEN PREPARATION AND DEGREASING
- Thoroughly degrease the rotary screen prior to use with FOTOCHEM 2003
- Dry and store rotary screen in a dust free, dry environment

5. COATING
Use with rotary screen coating equipment.
- For top to bottom method, using a single squeegee machine, we recommend a coating speed of 10cm/min to obtain an uniform deposit of emulsion on the screen from the top to the bottom. Apply only one coat
- For bottom to top method by hand or machine, apply one coat and dry at 40°C (104°F). If you require a thicker stencil, apply two more coats and dry at 40°C (104°F)
- For top to bottom by double squeegee, one coat is enough to guarantee very high resistance. Coating speed suggested is 1 mt/min

6. DRYING
Thoroughly dry the coated screen at a temperature of 40°C (104°F) in a well-ventilated oven.
7. EXPOSING
For photo engraving, the exposure time depends on the light source and the mesh count. For example, expose a 125 mesh (coated top to bottom using a single squeegee) for 6 minutes with blue fluorescent tubes or for 8 minutes using a 6 kW lamp. When different coating methods are used, you must adjust exposure times depending on the emulsion thickness. For laser engraving, we recommend to expose the rotary screen to an UV lamp source before polymerization. Polymerize the screen and laser engrave it.

8. DEVELOPING
Soak the engraved screen in a tank of water for 5 to 10 minutes or use an automatic washing machine. In either case, ensure a thorough final rinse.

9. RECLAIMING
Before polymerization, you may remove 1091 with FOTECHEM 2004, liquid FOTECHEM 2005 paste or FOTECHEM 2048 dilute up to 1:30.

10. POLYMERIZATION
- Place the screen into oven at 180-190°C (356-374°F) for 1 h, starting when temperature indicated is reached.
- After polymerisation the stencil is permanent (not reclaimable anymore).

11. HEALTH & SAFETY
- Before using, refer to appropriate material safety data sheets (MSDS).
- To receive the MSDS, please send an e-mail to: SDS@saatichem.com

12. STORING
The freshness of the Diazo controls the pot life. Age, transportation and storing conditions influence the quality of the emulsion drastically.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Service Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsensitized, 18-25°C storage</td>
<td>18 months</td>
</tr>
<tr>
<td>Sensitized, stored at 20°C (pot life)</td>
<td>1-2 weeks</td>
</tr>
<tr>
<td>Pre-coated screens in total darkness at 20°C</td>
<td>1 week</td>
</tr>
</tbody>
</table>

SAATI S.p.A.
These Technical Informations are published without warranty. The results shown in these Technical Informations are based on laboratory testing. The supplier declines any responsibility for incorrect use of these products which are manufactured and sold for industrial use only.