## TECHNICAL INFORMATION BULLETIN

## KODAK RP X-OMAT Developer and Replenisher

## Mixing Instructions

Updated January 10, 2002

## Important Information Before You Begin

- Observe the precautionary information on the containers.
- Use ventilation with enough air circulation or exhaust to keep the mixing area free from strong odors (change 10 room-volumes of air per hour).
- Wear rubber gloves, eye protection (visor goggles or face shield), and a chemically impervious apron when mixing chemicals.
- To avoid release of irritating vapor(s), always follow mixing instructions.
- When filling the processor with both developer and fixer solutions, fill the fixer tank first.


## Automixer

- A new mix of replenisher solution should be made when the low-solution level indicator is activated.
- Be sure the tank has enough room to accept the additional amount of liquid volume to be mixed.
- Before making the initial mix of replenisher solution, refer to the start-up procedures included in the automixer's operating instructions.
- Be sure the automixer has been set to provide the proper dilution.
- For best results, water temperature should be $70^{\circ}-80^{\circ} \mathrm{F}\left(21^{\circ}-27^{\circ} \mathrm{C}\right)$.


## 5 Gallons (19 Litres)

| Step | Action |  |
| :---: | :--- | :--- |
| 1 | RP X-OMAT Developer and Replenisher, Part <br> A (one bottle) | For each Step (1 thru 3): <br> a. Remove the bottle's plastic cap. <br> b. Do not remove or puncture the foil membrane covering the <br> top of the bottle. |
| 2 | RP X-OMAT Developer and Replenisher, Part <br> B (one bottle) | C (one bottle) |
| 3 | RP X-OMAT Developer and Replenisher, Part <br> c. Remove the dust cover from the top of the automixer. <br> d. Insert the bottle in the appropriate template. Make sure the <br> foil membrane is punctured by the probe to allow the <br> solution to flow into the mixing tank. |  |
| 4 | Water will automatically fill the mixing tank. When properly diluted, the specific gravity of the developer should <br> be 1.081 to 1.091. |  |
| 5 | Remove the empty bottles and place the dust cover on the automixer. |  |

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## Manual Mixing

## 5 or 10 Gallons (19 or 38 Litres)

- The concentrated Parts A, B, and C must be mixed at the recommended dilution.
- Always measure and record the quantity of developer replenisher solution in the replenisher tank before mixing.
- Be sure the tank has enough room to accept additional liquid volume (5 or 10 gallons / 19 or 38 litres).
- A floating lid is required to control oxidation after mixing.

| To Make | Start with Water <br> $70^{\circ}-80^{\circ} \mathrm{F}$ <br> $\left(21^{\circ}-27^{\circ} \mathrm{C}\right)$ | While Stirring Continuously, Slowly Add (in order) |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  | Part B | Part C $^{*}$ |  |
| 5 Gallons |  |  |  |
| (19 Litres) | 3.7 gallons <br> $(14$ litres $)$ | 1 bottle | 1 bottle | 1 bottle |
| 10 Gallons | 7.4 gallons |  |  |  |
| $(38$ Litres) | (28 litres) | 2 bottles | 2 bottles | 2 bottles |

* After adding Part C, stir continuously until solution is completely mixed (appx. 2 minutes).


## 200 Gallons ( 757 Litres)

- The concentrated Parts A, B, and C must be mixed at the recommended dilution.
- Start with the required volume of water. Add the chemical parts slowly and in the order indicated.
- The 200 -gallon size consists of three (3) parts:
- Part A: one drum of liquid
- Part B: two containers of liquid
- Part C: two containers of liquid

| To Make | Start with Water$\begin{gathered} 70^{\circ}-80^{\circ} \mathrm{F} \\ \left(21^{\circ}-27^{\circ} \mathrm{C}\right) \end{gathered}$ | While Stirring Continuously, Slowly Add (in order) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Part A | Part B | Part C* |
| 200 Gallons (757 Litres) | 146.3 gallons (554 litres) | 1 drum (50 gallons / 189 litres) | 2 containers (1.9 gallons / 7.1 litres) | 2 containers (1.8 gallons / 6.7 litres) |
| 100 Gallons (379 Litres) | 73.2 gallons (277 litres) | 25 gallons <br> (94.6 litres) | 1 container ( $120 \mathrm{fl} \mathrm{oz} . / 3.55$ litres) | 1 container (112.6 fl oz. / 3.33 litres) |
| $\begin{aligned} & \hline 40 \text { Gallons } \\ & \text { (151.4 Litres) } \end{aligned}$ | 29.3 gallons (111 litres) | 10 gallons (38 litres) | $\begin{gathered} \hline 48 \mathrm{fl} \mathrm{oz} . \\ (1.42 \text { litres }) \end{gathered}$ | $\begin{gathered} 45 \mathrm{fl} \mathrm{oz} . \\ (1.33 \text { litres }) \end{gathered}$ |

* After adding Part C, stir continuously until the solution is completely mixed.

| To Make | $\begin{gathered} \text { Start with Water } \\ 70^{\circ}-80^{\circ} \mathrm{F} \\ \left(21^{\circ}-27^{\circ} \mathrm{C}\right) \end{gathered}$ | While Stirring Continuously, Slowly Add (in order) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Part A | Part B | Part C* |
| 20 Gallons (76 Litres) | 14.6 gallons (55.4 litres) | $\begin{gathered} \hline 5 \text { gallons } \\ (18.9 \text { litres }) \end{gathered}$ | $\begin{aligned} & \hline 24 \mathrm{fl} \mathrm{oz} . \\ & (710 \mathrm{~mL}) \end{aligned}$ | $\begin{gathered} 22.5 \mathrm{fl} \mathrm{oz} . \\ (666 \mathrm{~mL}) \end{gathered}$ |

* After adding Part C, stir continuously until the solution is completely mixed.


## 400 Gallons (1514 Litres)

- Start with the required volume of water. Add the chemical parts slowly and in the order indicated. Stir well after adding each chemical.
- The 400 -gallon mix should not be split to mix 200 gallons.
- The 400 -gallon size consists of four (4) parts:
- Part I: one (1) drum of liquid
- Part II: two (2) containers of powder
- Part III: one (1) container of KODAK Hydroquinone, photographic grade
- Part IV: one (1) container of liquid

| To Make | Start with | While Stirring Continuously, Slowly Add (in order) |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | Water <br> $70^{\circ}-80^{\circ} \mathrm{F}$ <br>  | Part I | Part II | Part III | Part IV* |
|  | $\left(21^{\circ}-27^{\circ} \mathrm{C}\right)$ |  |  |  |  |
| 400 Gallons | 338 gallons | 1 drum | 2 containers | 73.6 lbs | 1 container |
| $(1514$ Litres $)$ | $(1279$ litres $)$ | $(50 \mathrm{gal} / 189$ litres $)$ | $(98.8 \mathrm{lbs} / 44.8 \mathrm{~kg})$ | $(33.5 \mathrm{~kg})$ | $(3.2$ gal $/ 12.1$ litres $)$ |

* Note:
- Part IV must be added very slowly.
- Attach a KODAK Screw Cap Dispenser Tube, Model II (Catalog 1905090) to the container. Make sure the tube end is below the surface of the mixing solution while dispensing Part IV.
- Do Not Rinse the Empty Container into the Mix.
- After adding Part IV, stir continuously until the solution is completely mixed.


## To Prepare a Working Solution

- Use the splash guard to avoid contamination of the developer with fixer.
- Maintain the operating temperatures and the chemical replenishment rates recommended in Processing Recommendations for KODAK X-OMAT Processors, KODAK X-OMAT Multiloaders, and KODAK MIN-R Mammography Processors, (Service Bulletin 30).
Note: When filling the processor with both developer and fixer solutions, fill the fixer tank first.

| Step | Action |
| :---: | :--- |
| 1 | Place the splash guard between the developer and fixer tanks. |
| 2 | Remove the developer rack. |
| 3 | Fill the developer tank to the fill line. See Service Bulletin 30 for the <br> correct starter volume for your processor. |
| 4 | Replace the developer rack. |

## Additional Information

## MSDS

Material Safety Data Sheets are available online via the MSDS Search Page.

## Storage and Handling

Click Here for Storage and Handling Conditions for KODAK Medical Processing Chemicals.
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