CALBE CHEMIE

PRODUCT INFORMATION

UNI BLEACH C-41
Bleach Replenisher *BL-R*

UNI BLEACH C-41 is a universal Bleach concentrate, designed for minilab processes C-41 RA and CN-16 L, as well as for dip & dunk machines and continous feed machines (CF) for process C-41 PRO.

When applied in minilab film processors, designed for C-41 RA and CN-16 L, the concentrate is used undiluted as a „ready-to-use“ replenisher.

When used in dip & dunk and continous feed machines (CF), designed for C-41 PRO, the concentrate is to be diluted with water to prepare replenisher.

PRODUCTS

UNI BLEACH C-41 5 L REF 13350	**C-41 RA: 5 L Ready-to-use replenisher (RTU)** **CN-16: 5 L Ready-to-use replenisher (RTU)** **C-41 PRO: 5 L conc. for 15 L replenisher**
Starter C-41 BL-S 1 L REF 13230	**C-41 RA: for 40 L** **CN-16 L: for 40 L** **C-41 PRO: for 50 L**

Bleach Starter BL-S is required, when a Bleach working solution is to be mixed newly, for example after tan cleaning as part of maintenance work or when a machine is installed.

YIELD

C-41 RA: for approx. 1,000 films 135-24 or for approx. 685 films 135-36
CN-16 L: for approx. 1,000 films 135-24 or for approx. 685 films 135-36
C-41 PRO: for approx. 340 films 135-36 (dip & dunk machine)

STORAGE

UNI Bleach C-41 concentrate in original packs should be stored dry, frost-proof and out of the reach of children. The maximum temperature range is between 5°C and 25°C. Crystallisation of individual ingredients may occur at low temperatures. Avoid direct heat sources. Storage temperatures between 10°C and 20°C are ideal.

SHELF LIFE

UNI BLEACH C-41 concentrate in its original packaging has a virtually unlimited shelf life.

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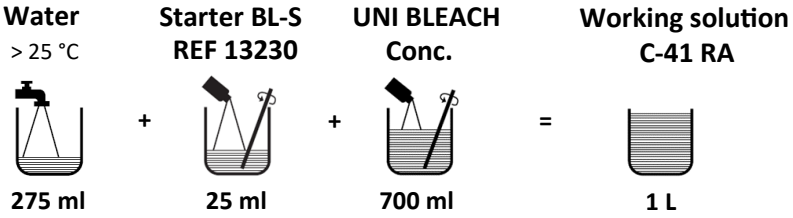
PROCESS C-41 RA

MIXING OF REPLENISHER C-41 RA

The solution is ready-to-use, to be filled into the replenisher tank without any dilution.

MIXING OF WORKING SOLUTION C-41 RA

Mixing of working solution is required, when the working tank of the machine is to be refilled, e.g. when installing a machine or after tank cleaning as part of maintenance.



Preparation of working solution can either be done in a separate mixing vessel or directly in the working tank of the machine. Preparation in the working tank requires knowledge of the exact tank volume. The Colour Developer working tank must be covered perfectly and be protected to exclude any potential contamination with Bleach.

Specified quantities for water, Starter BL-S and UNI BLEACH concentrate must be multiplied according to the size of the respective Bleach working tank. The same applies to mixing in a separate vessel.

Mixing in the working tank: Pour the calculated quantities of water and Starter BL-S into the empty Bleach working tank and then top up with UNI BLEACH concentrate to overflow. Mixing is done by the bath circulation in the tank.

Mixing in a separate vessel: Add the calculated amounts of water, Starter BL-S and UNI BLEACH concentrate one after the other to the mixing vessel, mix for about 1-2 minutes and then pour the solution into the working tank.

Remaining UNI BLEACH concentrate is to be filled into the replenisher tank.

COMPENSATION OF EVAPORATION C-41 RA

Tempered working solution is subject to a continuous evaporation of water. Accordingly, the evaporation should be compensated by a daily addition of water to the working solution in order to avoid an increase in the concentration. In case that machines are not equipped with an automatic compensation system, water is to be added manually up to the overflow, before every start working.

TIME & TEMPERATURE C-41 RA

Time: 45 s **Temperature:** 35-38°C

REPLENISHMENT RATES C-41 RA

5.0 ml/135-24	7.5 ml/film 120
4.4 ml/meter film 135	9.1 ml/meter film 120

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PROCESS C-41 PRO

MIXING OF REPLENISHER C-41 PRO

Water > 25 °C		UNI BLEACH conc.		UNI BLEACH Replenisher C-41 Pro
	+		=	
666 ml		334 ml		1 L
6.6 L		3.4 L		10 L
10.0 L		**5.0 L**		**15 L**

MIXING OF WORKING SOLUTION C-41 PRO

Mixing of working solution is required, when the working tank of the machine is to be refilled, e.g. when installing a machine or after tank cleaning as part of maintenance.

Water > 25 °C		Starter BL-S REF 13230		UNI BLEACH Replenisher C-41 PRO		Working solution C-41 Pro
	+		+		=	
130 ml		**20 ml**		**850 ml**		**1 L**

The specified quantities for water, Starter BL-S and UNI BLEACH concentrate are to be multiplied according to the size of the respective Bleach working tank. Mixing should be carried out in separate mixing vessel, ideally under swirling of air, as oxygene promotes the activity of the Bleach working solution.

Fill the calculated quantities of water, Starter BL-S and UNI BLEACH concentrate into the empty Bleach working tank or mixing vessel, one after the other. Mixing time approx. 1-2 minutes for the working solution.

Warm water promotes fast and good mixing of the individual components.

COMPENSATION OF EVAPORATION C-41 PRO

Tempered working solutions are subject to a continuous evaporation of water. Accordingly, the evaporation should be compensated by a daily addition of water to the working solution in order to avoid an increase in the concentration. Before every start working, water is to be added manually up to the overflow of the Bleach working tank.

TIME & TEMPERATURE C-41 PRO

Time: 4:20 min Temperature: 35 - 38°C

REPLENISHMENT RATES C-41 PRO

44 ml/135-36 Dip & Dunk machines
44 ml/120 Dip & Dunk machines
33 ml/ 135-36 Rollertransport machines
20 ml/meter film 135 Continous feed machines (CF)

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PROCESS CN-16 L

MIXING OF REPLENISHER N2-R — CN-16 L

The solution is ready-to-use, to be filled into the replenisher tank without any dilution.

MIXING OF WORKING SOLUTION N2 — CN-16 L

Mixing of working solution is required, when the working tank of the machine is to be refilled, e.g. when installing a machine or after tank cleaning as part of maintenance.

Water > 25 °C		Starter BL-S REF 13230		UNI BLEACH Conc. (N2-R)		Working solution N2	
	+		+		=		
275 ml		**25 ml**		**700 ml**		**1 L**	
1.1 L		103 ml		2.9 L		~ 4.1 L	**FP 232 B**
1.4 L		125 ml		3.5 L		~ 5.0 L	**FP 362 B**
1.4 L		125 ml		3.5 L		~ 5.0 L	**FP 562 B**
2.4 L		223 ml		6.3 L		~ 8.9 L	**FP 922**

Warm water promotes fast and good mixing of the individual components. Stir/mix for approx. 1-2 minutes.

Preparation of working solution can either be done in a separate mixing vessel or directly in the working tank of the machine. Preparation in the working tank requires knowledge of the exact tank volume. The Colour Developer working tank must be covered perfectly and be protected to exclude any potential contamination with Bleach.

Specified quantities for water, Starter BL-S and UNI BLEACH concentrate must be multiplied according to the size of the respective Bleach working tank. The same applies to mixing in a separate vessel.

Mixing in the working tank: Pour the calculated quantities of water and Starter BL-S into the empty Bleach working tank and then top up with UNI BLEACH concentrate to overflow. Mixing is done by the bath circulation in the tank.

Mixing in a separate vessel: Add the calculated amounts of water, Starter BL-S and UNI BLEACH concentrate one after the other to the mixing vessel, mix for about 1-2 minutes and then pour the solution into the working tank.

Remaining UNI BLEACH concentrate is to be filled into the replenisher tank.

COMPENSATION OF EVAPORATION — CN-16 L

Tempered working solutions are subject to a continuous evaporation of water. Accordingly, the evaporation should be compensated by a daily addition of water to the working solution in order to avoid an increase in the concentration. In case that machines are not equipped with an automatic compensation system, water is to be added manually up to the overflow, before every start working.

TIME & TEMPERATURE N2 — CN-16 L

Time: 50 s **Temperature:** 38°C ± 3 °C

REPLENISHMENT RATES N2-R — CN-16 L

FP 232 B / FP 362 B / FP 562 B / FP 922: 5 ml/film 135-24 resp. 7.5 ml/film 120

OCCUPATIONAL SAFETY

Handling of photographic chemicals is safe, if used properly and protective measures are followed. Hazard and precautionary information can be found on the label (H and P phrases, hazard symbol) and in the safety data sheet. Personal protective equipment should include safety goggles or face shield, protective gloves and a lab coat or apron.

DISPOSAL

Photographic chemicals - concentrates or used baths - must not be discharged into the public sewerage system. These chemicals must be discarded by commercial waste treatment companies, who properly treat and dispose of in accordance with legal regulations. Further information can be found in the safety data sheet.

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