# RESTART A STUCK FERMENTATION USING UVAFERM 43 RESTART

PREPARE THE STUCK WINE:

These steps mitigate potential spoilage organisms and remove some toxic compounds commonly present in stuck wines. These compounds are produced by yeast when stressed and can cause stuck fermentations.

Step 1: Address potential spoilage organism concerns with SO$_2$ or a 25 g/hL addition of BACTI-LESS™ or lysozyme.
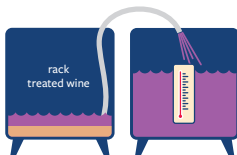
Step 2: Add RESKUE by suspending 40 g/hL (3.3 lb/1000 gal) RESKUE™ in 10 times its weight of warm water 30–37°C (86–98°F). Wait 20 minutes then add to stuck wine. Mix thoroughly to incorporate.
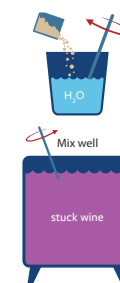
Step 3: Allow RESKUE to settle for 48 hours.

Step 4: Rack and adjust temperature to 20–25°C (68–77°F). Note new volume after racking.

PREPARE THE STARTER MIXTURE*:

*When adding yeast to a stuck wine environment that contains high alcohol and low sugar, yeast must be **very** carefully acclimated so they can successfully complete fermentation. These steps prepare a wine mixture that is lower in alcohol and higher in sugar than the stuck wine, which will help slowly acclimate yeast.*

Step 5*: Add a portion of the stuck wine and some water to a new vessel:

- Wine volume = 5% of the volume of the stuck wine (from step 4)

- Water volume = 4% of the volume of the stuck wine (from step 4)

Step 6: Add 8g/hL (0.66lb/1000 gal) of FERMAID O™ to the wine prepared in step 5. *Calculate this step based on the volume prepared in step 5, not total stuck wine volume.*

Step 7*: Adjust to 5% sugar (50 g/L) with cane sugar, grape juice concentrate, or grape juice.

**Step 8:** Mix well. Maintain temperature of 20–25°C (68–77°F).

YEAST REHYDRATION

*These steps ensure maximum yeast viability. **Pro tip:** do this step in a vessel that can accommodate up to 4 times the volume of the rehydrated yeast.*

Step 9: Add 53 g/hL (4.4 lbs/1000 gal) of GO-FERM PROTECT EVOLUTION™ to 20 times its weight of chlorine-free 43°C (110°F) water. *Calculate this step based on the volume of stuck wine, not the starter mixture.*
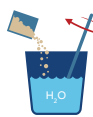
**Step 10:** Allow solution to cool to 40°C (104°F).
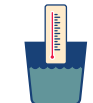
Step 11: Add 40 g/hL (3.3 lbs/1000 gals) of UVAFERM 43 RESTART™ yeast. Stir gently and let stand for 20 minutes, then stir gently again. *Calculate this step based on the volume of stuck wine, not the starter mixture.*
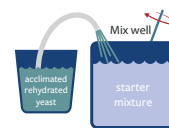
FIRST ACCLIMATIZATION:

*These steps start the acclimatization of yeast to the stuck wine conditions. **Pro tip:** start this process in the afternoon so that your mixture in step 15 hits 0° Brix during normal working hours the next day.*

Step 12: Add enough starter mixture (from step 8) to the rehydrated yeast (from step 11) to drop the temperature by 10°C (18°F). Let stand 15-20 minutes.
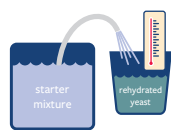
Step 13: Mix the acclimatized (yeast from step 12) with the rest of the starter mixture (from step 8).

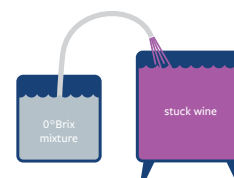**Step 14:** Maintain temperature of 20–25°C (68–77°F).

**Step 15:** Allow this mixture to drop to 0° Brix. This should take between 18 and 48 hours.

SECOND ACCLIMATIZATION/ INOCULATION:

*These steps continue the acclimatization of yeast and then inoculates the yeast into the stuck wine.*

Step 16: Transfer the mixture from step 15 to the total volume of stuck wine (from step 4). Before transferring, ensure the temperature of the two are within 10°C (18°F) of each other.

Step 17: Add 40 g/hL (3.3 lbs/1000 gal) of FERMAID O. Mix to homogenize.
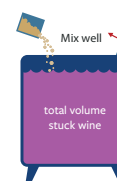
Step 18: Maintain temperature of 20–25°C (68–77°F) and monitor sugar depletion.
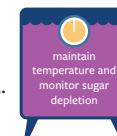
***Steps 5 and 7:** We recommend adding water and sugar (in the form of cane sugar or grape juice concentrate) to maximize the success of restarting fermentations. However, there are state and federal regulations that address adding sugar and water during the winemaking process. Please check applicable regulations to ensure compliance.*

WORKSHEET – USING UVAFERM 43 RESTART

Step 2					
Calculate RESKUE addition and water needed for re-suspension	(**(gal)** — total volume of stuck wine × 3.3)	÷	1000	=	**(lbs) Box 1** — weight of RESKUE
	(**(lbs) from Box 1** — weight of RESKUE × 10)	÷	8.33	=	**(gal)** — volume of water

Step 4	
Note the new volume after racking	**(gal) Box 2** — volume of stuck wine after racking

Step 5
Calculate amount of stuck wine and water needed for starter mixture, then calculate total starter mixture volume

WINE

(gal) from Box 2 — volume of stuck wine × 0.05 = **(gal)** — volume of **stuck wine** for starter mixture

+

WATER

(gal) from Box 2 — volume of stuck wine × 0.04 = **(gal)** — volume of **water** for starter mixture = **(gal) Box 3** — volume of starter mixture

Step 6					
Calculate FERMAID O addition to starter	(**(gal) from Box 3** — volume of starter mixture × 0.66)	÷	1000	=	**(lbs)** — weight of FERMAID O

Step 9					
Calculate amount of GO-FERM PROTECT EVOLUTION and amount of water needed for yeast rehydration	(**(gal) from Box 2** — volume of stuck wine × 4.4)	÷	1000	=	**(lbs) Box 4** — weight of GO-FERM PROTECT EVOLUTION
	(**(lbs) from Box 4** — weight of GO-FERM PROTECT EVOLUTION × 20)	÷	8.33	=	**(gal)** — volume of water

Step 11					
Calculate amount of UVAFERM 43 RESTART needed for restart	(**(gal) from Box 2** — volume of stuck wine × 3.3)	÷	1000	=	**(lbs)** — weight of UVAFERM 43 RESTART

Step 17					
Calculate FERMAID O addition to reinoculated fermentation.	(**(gal) from Box 2** — volume of stuck wine × 3.3)	÷	1000	=	**(lbs)** — weight of FERMAID O