



FeS solution

$\text{FeSO}_4 \times 7 \text{ H}_2\text{O}$	46.20	g
$\text{Na}_2\text{S} \times 9 \text{ H}_2\text{O}$	39.60	g
Distilled water	300.00	ml

Prewarm distilled water at 50°C in a beaker with a stir bar. While rapidly stirring the water, add $\text{FeSO}_4 \times 7\text{H}_2\text{O}$, followed immediately by $\text{Na}_2\text{S} \times 9\text{H}_2\text{O}$. A thick black precipitate will form instantly. Stir continuously for 2 to 3 min. Remove the mixture to a narrow-mouthed glass bottle (500 ml) that can be tightly stopped. The bottle is filled to the top with distilled water and capped. Allow to settle for several hours, decant and replace the overlaying water. Repeat this procedure at least five times to wash the FeS precipitate. Check pH to be close to neutral. To stock the FeS solution, fill the bottle with distilled water and cap. Remove the overlaying water when prepare the bottom layer.