



Skin and Wound Product Information Sheet

Dakin's Solution	
Classification	Antiseptic Wound Cleanser/Debrider
Key Points	<ul style="list-style-type: none"> • Compounding of Dakin's Solution within the home should only be done when Pharmacy or commercially prepared Dakin's Solution is not available. • Dakin's Solution is a mixture of non-concentrated sodium hypochlorite (e.g., unscented bleach) and sterile water. • May be used for wounds with/without undermining, sinus tracts/tunnels. • Has a broad-spectrum bacterial action. • Baking Soda is added to the solution to modify the pH.
Indications	<ul style="list-style-type: none"> • Under the direction of a Physician/NP/NSWOC/Wound Clinician for a wound which has high percentage of necrotic tissue/slough with or without signs and symptoms (S&S) of local/systemic wound infection or for a wound with S&S of biofilm.
Precautions	<ul style="list-style-type: none"> • Sensitivity to chlorine product (e.g., redness, swelling, skin irritation). • Harmful if swallowed.
Contraindications	<ul style="list-style-type: none"> • Do not use for clients with known sensitivity or allergy to chlorine. • Do not use for wounds with a granulating wound bed. • Do not combine with other cleansers or solutions (e.g., Acetic Acid, iodine).
Compounding Concentrations	<ul style="list-style-type: none"> • See page 2 for recipe. • If commercially-prepared sterile water not available then see Appendix A of Wound Cleansing: Procedure for how to make sterile water in the home.
Compounding Dakin's Solution	Key Points
<ol style="list-style-type: none"> 1. Sterilize a large, clean bottle which has a screw-top cap: <ul style="list-style-type: none"> • Remove the cap; place the bottle and cap in a pot of water, ensure that the bottle is completely covered. Bring the water to the boil and boil for 15 minutes. Carefully remove the bottle and cap from the hot water and allow to cool before handling. 2. Review the client-specific order for the strength to be compounded and refer to the table on page 2 for the recipe. 3. For safe handling of the bleach, pour a small amount of bleach into a glass/metal bowl and then measure out the required mLs. 4. As per the order and recipe, add to the sterilized, empty bottle the correct amounts of: <ul style="list-style-type: none"> • Bleach • Sterile Water (commercially prepared or home prepared) • Baking Soda 5. Screw on the cap and shake gently to mix. 6. Date and label contents. Store away from direct sunlight. 	<p>Use open bottles of commercially prepared or prepared-at-home sterile water within 24 hours.</p> <p>An open bottle of Dakin's Solution may be kept for 48 hours, then discard.</p> <p>If a large amount Dakin's Solution is made ahead of time, <u>unopened</u> bottles may be kept for 30 days from date of preparation.</p>
Application Directions	
<p>Cleanse the wound and peri-wound skin with Normal Saline using irrigation tip catheter/syringe and/or 2x2 solution-soaked gauze(s). Remove as much loosened slough/necrotic tissue as possible.</p> <p>Pat the peri-wound skin dry. Apply a skin protectant (barrier film, dimethicone or zinc barrier).</p> <p>Soak plain ribbon packing or plain gauze(s) with Dakin's Solution, wring out excess solution. Gently fill/pack any undermining/sinus/tunnel and the wound cavity.</p> <p>Apply absorbent cover dressing to maintain a moisture balanced wound environment.</p>	



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Frequency of Application	Change Dakin's Solution gauze(s) at least daily (as per order) until the percentage of necrotic tissue has decreased such that other cleansing/debriding methods could be used.	When the bulk of the necrotic tissue has been removed then discontinue the use of the Dakin's Solution to avoid damaging newly granulating tissue.
Expected Outcome	Wound will be debrided of necrotic tissue/biofilm within 7 days.	
For further information, please contact Wound Clinician		

Dakin's Solution Compounding Concentrations						
Solution Volume	Ingredients	*0.025% One/Twentieth Strength	0.06% One/Eighth Strength	0.125% Quarter Strength	0.25% Half Strength	0.5% Full Strength
*0.025% is considered the safest strength to use on tissue						
125 mL	*Bleach 5.25%	0.625 mL (1/8 tsp)	1.5 mL (¼ tsp)	3 mL (½ tsp)	6 mL (1 tsp + ¼ tsp)	12 mL (2 tsp + ½ tsp)
	Sterile Water	124.5 mL	123.5 mL	122 mL	119 mL	113 mL
	Baking Soda	pinch	pinch	pinch	pinch	pinch
	Total Amount	125 mL	125 mL	125 mL	125 mL	125 mL
250 mL	Bleach 5.25%	1.5 mL (¼ tsp)	3 mL (½ tsp + 1/8 tsp)	6 mL (1 tsp + ¼ tsp)	12 mL (2 tsp + ½ tsp)	24 mL (1 tbsp + 2 tsp)
	Sterile Water	248.5 mL	247 mL	244 mL	238 mL	236 mL
	Baking Soda	1/8 tsp	1/8 tsp	1/8 tsp	1/8 tsp	1/8 tsp
	Total Amount	250 mL	250 mL	250 mL	250 mL	250 mL
500 mL	Bleach 5.25%	3 mL (½ tsp + 1/8 tsp)	6 mL (1 tsp + ¼ tsp)	12 mL (2 tsp + ½ tsp)	24 mL (1 tbsp + 2 tsp)	48 mL (3 tbsp + ½ tsp)
	Sterile Water	497 mL	494 mL	488 mL	474 mL	452 mL
	Baking Soda	¼ tsp	¼ tsp	¼ tsp	¼ tsp	¼ tsp
	Total Amount	500 mL	500 mL	500 mL	500 mL	500 mL
1000 mL	Bleach 5.25%	6 mL (1 tsp + ¼ tsp)	12 mL (2 tsp + ½ tsp)	24 mL (1 tbsp + 2 tsp)	48 mL (3 tbsp + ½ tsp)	95 mL (6 tbsp + 1 tsp)
	Sterile Water	994 mL	988 mL	976 mL	952 mL	905 mL
	Baking Soda	½ tsp	½ tsp	½ tsp	½ tsp	½ tsp
	Total Amount	1000 mL	1000 mL	1000 mL	1000 mL	1000 mL

*Bleach 5.25% must be un-scented

Tsp/tsp = Teaspoon

Tbsp/tbsp = Tablespoon

References

Ohio State University Medical Center. (2002). *How to make Dakin's solution.*

Nationwide Children's Hospital. (2018). *How to make Dakin's solution.*

<https://www.nationwidechildrens.org/family-resources-education/health-wellness-and-safety-resources/helping-hands/dakins-solution>