

SyrSpend® SF compounding methods



SYRSPEND® SF PH4 (LIQUID)

1. Calculate, weigh or measure the API(s). If necessary, reduce the particle size of the API(s) or the crushed tablets or capsules' content and add q.s. of SyrSpend® SF PH4 (liquid) as a wetting agent.
2. Using geometric dilution technique with continuous mixing, add SyrSpend® SF PH4 (liquid) to the prepared powder to reach final volume. Stir until the preparation is homogeneous and dispense in container. Optional: add flavour concentrate.



SYRSPEND® SF PH4 AND ALKA (DRY, FOR RECONSTITUTION)

1. For compounding a 100 ml suspension 6.5 g SyrSpend® SF PH4 or 6.3 g Alka (dry, for reconstitution) powder is required. Measure this quantity from bulk and add to a dispensing container.*
2. Calculate, weigh or measure the API(s). If necessary, reduce the particle size of the API(s) or the crushed tablets or capsules' content. Add to the dispensing container with the 6.5 g SyrSpend® SF PH4 or 6.3 g Alka (dry, for reconstitution) powder. Homogenise powders.
3. Add water to the dispensing container to reach final volume. Shake vigorously until the suspension is homogeneous. Optional: add flavour concentrate.

* Always check if direct compounding in the dispensing container is possible. Especially with higher concentrations it may be required to use mortar and pestle.

Active suspending technology

SyrSpend® SF employs *active suspending technology*: the superior pseudoplasticity and thixotropy features of the vehicles which provide high accuracy and dosage consistency throughout treatment. With

just a few shakes, the pseudoplasticity of SyrSpend® SF ensures rapid redispersion of the API(s) in the compounded suspension, allowing for ongoing low effort rehomogenisation. Left to stand, the

suspension thickens due to the thixotropic properties, keeping the API(s) safely suspended and preventing the formation of an irreversible sediment cake, even when left untouched for up to a month.¹

Ingredient selection

SyrSpend® SF is suitable for vulnerable patient groups, including paediatric, elderly and hospitalised patients and those fed by a (nasogastric) tube.

allergic reactions. The absence of gluten and lactose, combined with the low osmolality (<50 mOsmol/kg) minimises gastrointestinal side effects.

Based on the latest WHO, EMA, ANVISA and FDA guidelines, SyrSpend® SF contains only ingredients generally recognised as safe, minimising toxicological effects and

All SyrSpend® SF vehicles are sugar free, suitable for small children and compatible with ketogenic diets.

SyrSpend® SF is free of:

- Benzyl Alcohol
- Carrageenan
- Colourants
- Dextrose
- Ethanol
- Gluten
- Glycerol
- Lactose
- Parabens
- Propylene Glycol
- Sorbitol
- Sucrose
- Xylitol
- Common food allergens

¹ Literature references available upon request






SyrSpend® SF Compatibility table

November 2016






Disclaimer: While a great deal of effort has been made to ensure the accuracy of the information contained herein, no claims are made as to the uses, safety, efficacy, or bioavailability of these recommendations. The content of this brochure cannot be construed as (medical) advice, recommendation, or opinion. Health professionals using this information are advised to do so solely if appropriate in their own professional opinion and judgment. Fagron does not accept and cannot be held responsible or liable in any case for the information contained herein.

SyrSpend® SF compatibility table

Legend		SYRSPEND® SF PH4 (LIQUID)		SYRSPEND® SF PH4 (DRY)		SYRSPEND® SF ALKA (DRY)	
<ul style="list-style-type: none"> ● Compatible combination for 30 days ● Compatible combination for 60 days ● Compatible combination for 90 days ⊗ Combination not recommended 							
Storage temperature		Common concentration(s)					
<ul style="list-style-type: none"> 🔥 15-25 °C ❄️ 2-8 °C 							
API							
Acetaminophen (paracetamol)	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Acetazolamide	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Allopurinol	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Alprazolam	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Amiodarone HCl	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Amitriptyline HCl	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Amlodipine (as besylate)	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Atenolol	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Atenolol	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Atropine sulfate	0.1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Baclofen	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Caffeine	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Captopril	0.8 mg/ml	14 days	❄️	14 days	❄️	⊗	⊗
Carbamazepine	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Carvedilol	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Celecoxib (tablets)	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Chloral hydrate	100 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Chloroquine phosphate	15 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Cholecalciferol (vit. D3)	50,000 IU/ml	●	❄️/🔥	●	❄️	⊗	⊗
Ciprofloxacin	50 mg/ml	●/●	❄️/🔥	●	❄️	⊗	⊗
Clomipramine HCl	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Clonazepam	0.2 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Cyanocobalamin (vit. B12)	0.2 mg/ml	●	❄️/🔥	⊗	⊗	⊗	⊗
Cyclosporine	100 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Dapsone	2 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Dexamethasone	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Diclofenac sodium	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Diltiazem HCl	12 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Dipyridamole	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Domperidone	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Enalapril maleate	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Esomeprazole magnesium	3 mg/ml	⊗	⊗	⊗	⊗	●	❄️
Flecainide acetate (tablets)	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Folic Acid	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Furosemide	10 mg/ml	⊗	⊗	⊗	⊗	14 days	❄️
Gabapentin	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Glutamine	250 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Glycopyrrolate (glycopyrronium bromide)	0.5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Haloperidol	0.5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Hydrochlorothiazide	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Hydrocortisone	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Hydrocortisone hemisuccinate	2 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Hydrocortisone sodium phosphate	2 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Imipramine HCl	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Isoniazid	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Itraconazole	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Ketoconazole	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Ketoprofen	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Labetalol HCl (tablets)	40 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Lamotrigine	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Levodopa and carbidopa	5/1.25 mg/ml	●/●	❄️/🔥	●	❄️	⊗	⊗
Levofloxacin	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Lisinopril dihydrate	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Loperamide HCl	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Lorazepam	1 mg/ml	●/●	❄️/🔥	●	❄️	⊗	⊗
Mebeverine HCl	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Melatonin	3 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Methotrexate	2.5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Metoprolol tartrate	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Metronidazole benzoate	80 mg/ml	716 days / 366 days	❄️/🔥	●	❄️	⊗	⊗
Midazolam HCl	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Minocycline HCl	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗

SyrSpend® SF compatibility table

Legend		SYRSPEND® SF PH4 (LIQUID)		SYRSPEND® SF PH4 (DRY)		SYRSPEND® SF ALKA (DRY)	
<ul style="list-style-type: none"> ● Compatible combination for 30 days ● Compatible combination for 60 days ● Compatible combination for 90 days ⊗ Combination not recommended 							
Storage temperature		Common concentration(s)					
<ul style="list-style-type: none"> 🔥 15-25 °C ❄️ 2-8 °C 							
API							
Nadolol	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Naltrexone HCl	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Naproxen	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Nifedipine	4 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Nitrofurantoin	2 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Omeprazole	2-5 mg/ml	⊗	⊗	⊗	⊗	●	❄️
Ondansetron HCl	0.8 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Oseltamivir phosphate (capsules)	15 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Oxandrolone	3 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Pantoprazole sodium	3 mg/ml	⊗	⊗	⊗	⊗	●	❄️
Penicillamine	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Pentoxifylline	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Phenobarbital	9 mg/ml	154 days	❄️/🔥	●	❄️	⊗	⊗
Phenytoin	15 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Prednisolone sodium phosphate	1.5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Pregabalin	20 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Propranolol HCl	1 mg/ml	146 days	❄️	●	❄️	⊗	⊗
Propylthiouracil	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Pyridoxine HCl (vit. B6)	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Quinidine sulfate	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Ranitidine HCl	14 mg/ml	●/36 days	❄️/🔥	●	❄️	⊗	⊗
Riboflavin (vit. B2)	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Rifampin (rifampicin)	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Sertraline HCl	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Sildenafil citrate	2.5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Simvastatin	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Spirolactone	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Spirolactone and hydrochlorothiazide	5/5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Sulfadiazine	100 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Sulfasalazine	100 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Tacrolimus monohydrate	1 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Terbinafine HCl	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Tetracycline HCl	25 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Thiamine HCl (vit. B1)	100 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Tiagabine HCl (tablets)	1 mg/ml	●/●	❄️/🔥	●	❄️	⊗	⊗
Topiramate	5 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Tramadol HCl	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Trimethoprim	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Ursodiol (ursodeoxycholic acid)	30 mg/ml	66 days	❄️	●	❄️	⊗	⊗
Valsartan	4 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Vancomycin HCl	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Verapamil HCl	50 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗
Zonisamide	10 mg/ml	●	❄️/🔥	●	❄️	⊗	⊗

Reconstituted suspensions with SyrSpend® SF PH4 (dry) and SyrSpend® SF Alka (dry) are preservative-free and should be stored at 2-8 °C. When absolute hygiene conditions during use cannot be guaranteed, a beyond-use-date of maximum 30 days for SyrSpend® SF PH4 (dry) and SyrSpend® SF Alka (dry) is recommended.

Please refer to the free **Compounding Matters** formulations database at fagron.com for all compounding methods, scientific references, and patient use information.

SyrSpend® SF vehicles allow for stable preparations with a broad range of active pharmaceutical ingredients (APIs). Combinations that have been scientifically studied for chemical, physical and microbiological stability are included in this SyrSpend® SF compatibility table. APIs that are not included in this compatibility table can also form stable and palatable suspension. When no study data is available for a specific API, it is recommended that the pharmacist assigns an appropriate expiry date based on internal protocols, risk analysis or guidelines from accredited pharmacopoeias.

Fagron Oral Administration Solutions

Fagron Oral Administration Solutions offers a complete range of products for patients whose needs are not met by commercially available oral medication. SyrSpend® SF is an oral liquid vehicle range for the preparation of extemporaneous oral liquid medication.