RESIDUES

Residue is probably the single most important issue in troubleshooting cloth diaper problems. In this document we will explain to you what residues are, how to avoid them, and how to resolve them if your diapers already have a residue problem.

If your wraps are leaking or wicking, or if your diapers or inserts are not absorbing properly, your diapering products are probably not worn out or defective. They most likely have a residue problem – and this can be resolved.

The same is true in the case of smelly diapering products. Some people believe that certain diapering products are just plain smelly – not true! Clean diapers and wraps should never smell like detergent, a barnyard or ammonia! If they do – then most likely you most likely have a residue problem that can be resolved.

How do I know if I have a residue?

- Stinky diapers/inserts/wraps
- Discoloured diapers (in the case of synthetic fabrics) or wraps
- Non-absorbing diapers
- Leaking wraps
- Diaper rash

What causes residue?

- Too much or too little detergent
- Using a detergent with additives
- Not using enough water to wash or rinse with
- Dryer sheets (even if used only in your regular laundry)

Are some fabrics more likely to develop residue?

Yes! Diapering fabrics made from polyester: PUL, suede-cloth, fleece, etc. are more likely to develop residue problems than natural fibres. Natural fibers are hydrophilic – meaning they love water. This makes them far easier to clean.

I think my diapers/inserts/wraps have a residue problem! What can I do?

We will tell you how to solve your residue problem (see below), but the most important thing is to find out what is causing it so that you can change your washing routine and avoid having the same problem again!

DETERGENT RESIDUES

Detergent residue is a film left on fabric by detergent. It can build up on any items that you wash: clothes, bedding, etc. Usually you will only notice it if you have a residue on a product that is supposed to be absorbent or waterproof – like diapers and wraps.

You can see the signs of detergent residue right away if your diapers, inserts, or wraps are washed with way too much detergent. In the case of additives, it could take a couple of months before you have any problems. You may even find that one of your wraps develops problems before the rest.

Here are the problems you may see:

1. Leaking and wicking onto babies' clothing
2. Repelling liquid (beading)
3. Stinky diapers / inserts / wraps
4. Skin rashes
5. Yellowing or dinginess of white fabrics (mineral build up commonly caused by hard water)
6. Early breakdown of components of products (lamination, elastic, hook and loop)

Why do you have this problem?

1. You may be using too much detergent. If you are using the correct amount of detergent for the size of load you are washing but if there is not enough water in your machine, then you will end up with too much detergent. If there is not enough water in the rinse cycle, there will be detergent left behind in your diapers from the wash cycle.
2. Or you may be using a detergent with additives that leave residue in the fibres. Detergent companies put additives into their formulas in order to attract us with cleaner, brighter, whiter, softer, etc. promises. This can cause problems for people with sensitive skin and can leave residues on your laundry.
3. Or you may have recently switched to a zero-residue detergent, after having previously used a detergent with residue-causing additives. Your new zero-residue detergent may have loosened old residues that were left behind in your washing machine from your old detergent. There are those who believe that once loosened, these residues can attach themselves to your diapers and the rest of your laundry.

Below is a brief outline of what to watch out for when you shop for a detergent:

Fabric Softeners are usually clearly marked on detergent packaging, thus easy to avoid. They will cause wicking and repelling of liquid on most fabrics, as they leave an oily residue.

Optical Brighteners are added to many detergents. Words like "brighter, "whiter," or "cleaner" on packaging are signs that a detergent might include them. Optical brighteners (also called optical bleaches or fluorescent whitening agents) are fluorescent chemicals that absorb ultraviolet light and emit back visible blue light. This gives the impression that clothes are brighter and cleaner – but these particles can build up on fabric causing leaking and wicking and sometimes eye or skin irritations.

Optical brighteners have also been identified as being toxic to fish and other aquatic life – and some are even capable of causing mutations in bacteria. In addition, they are very slow to biodegrade. So far, science does not know the full impact of their presence in our environment, and how they affect animal health, so we encourage the use of detergents free of optical brighteners whenever possible.

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Stain Guards are usually easy to spot in detergents, since brands use them as a selling point. Look out for phrases on packaging like "stain repelling" or "stain protection." Stain guards will coat fibres.

Natural Additives usually show up in detergents in the form of oils. Like chemical additives, they do not always cause a problem- but with time, natural oils can build up and lead to wicking, leaking and repelling of liquids. Examples include orange oil, or citrus extract.

Soaps are naturally derived and can react with the minerals in water to create a film on whatever you wash. This film can leave a residue and turn clothes grey. Castile soap is an example of a natural soap that can cause a residue problem.

Detergent residues can easily be resolved!

If the residue is not too extensive, you can usually get rid of it by doing several hot water washes with no detergent, then throwing the diapers, inserts and wraps in the dryer. **Make sure you are washing with enough hot water.** If you cannot adjust your machine manually to the highest water level, call the manufacturer. If they cannot instruct you on how to adjust the water level to the highest water level, use the wet towel trick: decrease the volume of each load, and add one or two wet towels in order to trick your machine into adding more water. The diapers will be heavier when weighed for wash cycle water addition. Or use the no-spin option between a prewash (pre-rinse) and wash cycle, if you have this feature. As well, each model of washing machine has a cycle that offers more water. Consult the manufacturer or the manual to confirm this. Surprisingly, it is often the delicate cycle!

Multiple rinses will not work as effectively – you must increase the level of water used to was and rinse your diapers.

SOFT WATER: Homes with a water softening system are more prone to detergent residue, as soft water requires so much less detergent and rinsing is less effective. If you have soft water, use a detergent formulated for soft water or make sure that you are not using too much of a regular detergent. Sufficient rinsing is especially vital with soft water.

To test for absorbency, pour a small amount of warm water onto your diaper to test for absorbency. If absorbing properly, water should not bead, but should be absorbed immediately. Remember to apply slight pressure if your diaper has a synthetic interior. If your diaper still does not absorb properly, or if your diaper smells like detergent or ammonia, please call our customer service department at 1-888-828-6647. We would be happy to help you sort it out. Or you can consult WRAP UP, our troubleshooting app: https://www.bummis.com/us/en/wrapup.php

ORGANIC RESIDUES

As more and more people replace their washing machines with high efficiency front-loader models, we have seen more of this type of residue.

Your diapers should smell clean after they are washed. If they smell like urine, then it is clear that they have a urine residue. If they smell clean after they are washed and then like ammonia after the first pee, then it is probable that they have a urine residue.

How do I know I have a urine residue?

- Strong odour of ammonia
- Bad diaper rash
- Nasty stink that is similar to a barnyard smell

Where does the "stink" come from?

AMMONIA: When a wet diaper smells of ammonia (a burning smell), it is most likely due to an overproduction of ammonia. In the body, ammonia is converted to urea and excreted. Once the urine is released, the urea begins converting back to ammonia, so you will notice some ammonia smell when changing your baby's diapers. This is normal. A problematic ammonia smell is one that happens immediately when the diaper is peed in and is overwhelming.

Lingering residues in the diaper will increase AND speed up the production of ammonia. So if you smell an unusually strong odour of ammonia after your baby pees, you most likely have a urine residue in your diaper.

This residue is most commonly caused by not using enough water to wash and rinse diapers. It can also be caused by not using enough detergent. Detergent is what enables water to enter the fibres of the cloth and release its soil (by decreasing the surface tension of the water). If there is too little water (or detergent), the urine is diluted, but not rinsed away. It is recycled in the wash and dries onto the fabric, remaining there in the form of residues.

BARNYARD: When a wet diaper stinks like a barnyard as soon as it is peed in, there is most likely an organic residue. This type of residue is most commonly caused by not using enough detergent, as the diapers are not getting clean. This problem occurs more commonly with synthetic diapers as they require more detergent to get clean than natural fibers.

Why does my baby have a rash every time I put them in cloth diapers?

You should definitely suspect a urine residue. Ammonia in the diaper will burn tender baby skin!

Organic residues can easily be resolved!

AMMONIA: If the residue is not too extensive, you can usually get rid of it by doing several hot water washes with detergent, then throwing the diapers, inserts and wraps in the dryer. **Make sure you are washing with enough hot water and rinsing well.** If you cannot adjust your machine manually to the highest water level, call the manufacturer. If they cannot instruct you on how to adjust the water level to the highest water level, use the wet towel trick: decrease the volume of each load, and add one or two wet towels in order to trick your machine into adding more water. The diapers will be heavier when weighed for wash cycle water addition. Or use the no-spin option between a prewash (pre-rinse) and wash cycle, if you have this feature. As well, each model of washing machine has a cycle that offers more water. Consult the manufacturer or the manual to confirm this. Surprisingly, it is often the delicate cycle!

Multiple rinses will not work as effectively – you must increase the level of water used to wash and rinse your diapers. If your diaper still smells like ammonia, please call our customer service department at 1-888-828-5547. We would be happy to help you sort it out.

Because so many factors can vary in a wash routine, sometimes it is necessary to try another detergent in order to find success with your personal combination of factors. If adding additional detergent does not remedy your problem, it may be time to try a new detergent. Check out our list for some suggestions: http://www.bummis.com/media/detergent-information.pdf

If the biological residue is extensive, it may be necessary to treat your diapers with oxygenated bleach – or in very extreme cases, chlorinated bleach. Oxy bleach is gentler on the diaper, the skin and the environment – so we suggest trying it first. Be sure to use it with hot water and allow for the longest wash cycle available. Rinse well to remove all oxy bleach before drying.

If your diaper still smells like barnyard, please call our customer service department at 1-888-828-6647. We would be happy to help you sort it out.

HARD WATER: please note that hard water can cause detergents to work less effectively and can leave a mineral build up behind that can result in repelling, leaking, degradation of components and stink. Using a detergent formulated for hard water will often help but whenever possible install a water softening system to prolong the life of appliances, pipes and laundry.