



Cleaning of PPE and safety equipment for ropes courses and adventure parks

Despite a truly difficult year for so many of us, we have adapted, learnt and miraculously are in the throes of making plans for 2021.

When Vertex set up the Industry Group in April, as a way to support the ropes course and adventure park industry to re-open, little did we know at the time that we would become very well acquainted with inner workings of the world of cleaning products.

We kept and keep hearing the word “unprecedented times” and they really are, and we know everyone is doing their very best, whether that be manufacturers, suppliers, advisers, operators, inspectors, employers or employees. All of us have had competing priorities through this pandemic with information changing almost daily as well as the worry of our own businesses’ futures, our employees, families, customers and clients health and wellbeing.

With all this in mind we want to take this opportunity to thank everyone that has contributed to our learning in this area and we hope that the information below will support you in making decisions for your kit and operation as we move into 2021.



First off, the pandemic has certainly raised the profile of cleanliness with our gear generally and that can't be a bad thing in the long run.

It has also shown that in order for gear to be safely cleaned, without any detrimental effect, there is no product on the market that can give those guarantees and so your cleaning regime should be proportionate to the level of risk that you have identified for your operation.

The UK Government “Working Safely” documents require employers to “[reduce risk to the lowest reasonably practicable level by taking preventative measures](#)” and in the case of COVID-19 to lower the risk of transmission of the virus. As operators and employers we already have protocols in place to limit that risk of transmission from asking people not to come if they feel unwell, increased washing facilities, the use of masks, social distancing measures and with a vaccine being rolled out by the NHS as we type, and rapid testing becoming more accessible, it will be much easier for operators to manage employees and customers lowering the risk of transmission even further.

With the need and desire to open safely as soon as operators were allowed, decisions about cleaning regimes for kit were taken, these ranged from washing in a myriad of products after every use, every session, every week or quarantining for 72 hours to remove the need for cleaning. As time has gone by, we've been able to identify a number of unforeseen consequences from these cleaning regimes which we wanted to share with you and which you might find useful as you store your kit away for the winter.

- Using a cleaning agent that is OK for metal components but has migrated onto other areas of the safety equipment or PPE. For example, an active ingredient like Hydrogen Peroxide being used on a metal buckle and migrating onto the webbing and thereby causing deterioration of the stitching.
- Staff not following instructions. For example, when told to spray a cleaning product onto a cloth and wipe down the item (allowing you to control the spread of the cleaning product), they have instead been spraying the item which can then lead to the cleaning product migrating onto other components.

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- Not drying equipment properly after it has been washed and then causing a buildup of mold.
- Cleaning agents taking off the protective anodized layer on metal components. Then through extra washing exposes bare metal to increased levels of corrosion and rust. This then causes problems like the webbing deteriorating where a buckle is rubbing against the bare metal or on a lanyard
- Staff getting dilution levels wrong when asked to clean with a concentrated base product which they are asked to pre-mix with water.
- Misinterpreting what soap flakes are – people using washing powders and detergents rather than the pure soap flakes – showing our age here!
- Advertising on the cleaning product leading you to believe it is fine to use but not noticing there can be hidden compounds and ingredients that aren't obvious or listed on the bottle/container.
- Stiffening of ropes, slings and webbing through a constant cycle of being made wet and then being dried.



So what have we learnt from these findings?

Well, occasional washing is OK, it's the frequency that might cause issues so the best way to "clean" your gear is to quarantine it for 72 hours – something that the manufacturers do agree on. However, we recognise that this isn't always reasonably practicable or financially viable particularly if you end up having to buy more kit. So, if you are going to clean your kit then we suggest it's important to consider doing the following:

- Check directly with the PPE / safety gear manufacturer and tell them what product you want to use
- Alternatively, ask your supplier of gear to check with the manufacturer for you
- If you do wash your gear then use a pure soap product with no added ingredients and make sure they are rinsed off in fresh water afterwards
- Make sure that any cleaning product you use is either PH neutral or falls within the permissible PH levels of 5.5 and 8.5 – but again check with the manufacturer
- Ensure that you have read the safety data sheets on the product you are using. You can find chemical resistance charts online like this one for example – <https://www.coleparmer.com/chemical-resistance> where you can look at what a particular chemical will or will not do to something like a polymer. Please remember though these types of websites are not a replacement for competent advice but can give you an indication as to whether you should have a concern. It is also worth noting the often short duration of the testing e.g. 21hrs, 4 days, or 6 months, which may not expose the effects of that chemical upon your product for lengths of

time beyond that, for example for the whole potential life of the product. Remember that each item may be comprised of more than one material - even a nylon sling has other polymers within its construction, not just nylon. Also, one polymer may be OK with one chemical but another could be very poor with the very same chemical.

- More thorough inspections of your gear making sure that your staff know what they looking for and are properly trained to carry out those inspection. Again, if you need to ask the manufacturer if there are additional things to look out for on top of what they already recommend then do contact them.
- Ozone cabinets and fogging machines – although these can be used evidence shows that they might degrade certain polymers so please check with the supplier of the cabinet and the manufacturer of your gear to see if they are OK with it being used in the way you are proposing. It's worth noting that ozone has been listed as potentially damaging to some polymers.
- Even if a cleaning product manufacturer or supplier tells you their product is fine to use on your gear we suggest that you ask them to evidence that the manufacturer of the gear is satisfied that their cleaning product will not degrade the item.



If you're concerned that your cleaning regime may have compromised your gear in any way, then we'd suggest you:

- Stop using the equipment and cleaning product and seek competent advice from the manufacturer of the gear or someone who can advise about the chemicals you have used.
- Be aware that even if you stop using the cleaning product chemical degradation might continue for some time and so if you're going to pack away your gear for the winter you might want to consider taking a look at it at regular intervals to make sure it's not degrading. Nothing worse than coming back for a new season and finding your kit in bad shape and having to replace it all!

Despite all of the challenges that are facing us, there have been some very positive steps in our sector of the outdoor industry. We are more keenly aware of the importance of good hygiene and many operators are looking at turning their COVID risk assessments and policy into a more general hygiene policy – never a bad thing. Some are even going so far as to ensuring that should something similar happen again, and it's not beyond the realms of possibility, that they their policies are written in such a way that they could more appropriately respond to requests from government and PHE to pivot the way they do business. Manufacturers have now convened a CEN Committee in relation to the cleaning of gear and although consensus is some way off it is good to see them coming together to address this long neglected issue.

Finally, please remember that no-one has faced this before and we have all done the very best that we can in these challenging times and where cleaning of kit is concerned you don't need to go overboard – we've got many other protocols in place that support the lowering of risk of transmission and there is a vaccine and more effective testing rolling out which means that 2021 should be a much brighter year for us all!