

✓ Check List



AquaCare GmbH & Co. KG
Am Wiesenbusch 11 - D-45966 Gladbeck - Germany
Tel.: +49 2043 375758-0 - e-mail: info@aquacare.de,
www.aquacare.de - www.aquacare-shop.de

Nitrate

The nitrate concentration in the reef aquarium should be between 5 and 20 mg/l (ppm). Too low concentrations lead to an insufficient supply of the animals and can cause cyanobacteria plagues. Too high concentrations make coloured hard corals brown (too many zooxanthellae) and lead to plagues (e.g. filamentous algae, cyanobacteria).

Before each action, please check your nitrate level (standard = reference solution, second new test) again!

Too high nitrate concentrations

- Action:** use more fast-growing invertebrates (corals)
- Action:** increase the illuminance so that the corals grow faster and thus absorb more nutrients
- Action:** do not reduce the feeding of the animals - they should not suffer
- Action:** reduce the number of animals fed (e.g. fish, azooxanthellate coral)
- Action:** rinse frozen food well with tap water when defrosted
- Action:** more and/or more frequent water changes with a low-nitrate salt
- Action:** use only reverse osmosis water - tap water can contain up to 50 mg/l = ppm (sometimes even more) nitrate
- Action:** install a skimmer oder larger skimmer
- Action:** install a POC filter (pellet filter)
- Action:** install an ADN (sulphur based nitrate filter)
 - not at very low pH-value in the aquarium
- Action:** install a nitrate filter that must be fed with organic substances
 - not at very high pH-value in the aquarium
- Action:** install an algae filter / algae refugium / deep sand system / JAUBERT system
- Action:** use extremely carefully so-called nitrate killers
- Action:** install a fleece filter. Attention! Fleece filters also remove important plankton and organic particles, which serve as coral food, from the water.

Too low nitrate concentrations

- Action:** throttle or stop any type of nitrate filter
 - POC filters (pellet filters): remove e.g. half of the filter material
 - ADN (sulphur-based nitrate filter): remove e.g. half of the filter material
 - heterotrophic filter (fed with organic substances): feed the filter less
- Action:** feed your animals more - also feed for invertebrates is heavily contaminated with nitrate (liquid feed, dust feed, AquaCare+Globuli)
- Action:** use more animals that need to be fed (fish...)
- Action:** less water changes if the other water values do not suffer from it
- Action:** remove most of the algae from the algae filter / algae refuge
- Action:** use no or less "nitrate killers"
- Action:** dose nitrate-containing solutions, e.g. algae additive "N"