

Coastal Foam - Where does it come from? - Gold Coast -

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What is it?

Coastal foam is a natural phenomenon and is created by the basic mechanism of breaking waves plunging air bubbles into seawater.

Foam is created by impurities in the ocean, such as salts, chemicals, dead plants, decomposed fish and excretions from seaweed. Agitated together by powerful currents, the water mixes together and forms bubbles. These bubbles stick to each other and are carried below the surface by the current towards the beach. As a wave starts to form on the surface, the motion of the water causes the bubbles to swirl upwards and stacked together they become foam (Daily Mail, 2007).



Where does it come from?

During coastal storms, as strong wind blows over the ocean, the waves get larger and contain more power. The high energy from the waves forces air into the water and produces large quantities of coastal foam. The accumulation of foam depends on many things including how exposed the beach is to wind, and how heavy the rain is. The shape of the breaking wave also seems to make a difference in where the foam ends up. More foam seems to form on eroded beaches or one where the waves abruptly reach a cliff, for example Froggies and Miami Beach.

Is it safe?

Coastal foam is not pollution. It is a natural occurrence that happens in many places all over the world. Foam often looks dirty and sometimes has an oily sheen to it. Organic compounds in the water cause the foam to be long lasting and durable. Fine particles of sediment may attach themselves to the coastal foam giving it a brown and dirty appearance.



Seeing people disappear entirely from sight under the coastal foam while waves crash over them appears to be more unsafe than the foam itself. If someone tripped or was swept away under the foam it would be difficult to locate them.

Useful links

- www.ocean.udel.edu
- www.hampton.lib.nh.us
- www.wikipedia.org
- www.dailymail.co.uk

Further information

For further information on coastal foam please contact the Griffith Centre for Coastal Management on (07) 5552 8506 or email gccm@griffith.edu.au. Or Gold Coast City Council on (07) 5567 3770.

* Images provided by UNSW and GCCC

Griffith Centre for Coastal Management Information Sheet