CLAIMS

1. A container refrigeration apparatus, comprising:

a casing (12) mounted on a container (11) for use in marine transportation; components of a refrigerant circuit (20) attached to the casing (12); and an inside air control system (60) attached to the casing (12), wherein

the container refrigeration apparatus is configured to cool an internal space (S) of the container (11), and supply a gas mixture to the internal space (S) of the container (11) using the inside air control system (60), and

the inside air control system (60) includes: a gas supply device (30); and a gas mixture generator (38) that generates a gas mixture having a higher nitrogen concentration and a lower oxygen concentration than air sucked through a filter unit (75) of the gas supply device (30),

the gas supply device (30) includes: a gas passage (40) that supplies gas to an indoor space (S); a filter unit (75) provided at an inlet of the gas passage (40); and an air pump provided in the middle of the gas passage (40) and configured to supply gas generated by the gas mixture generator (38) to the indoor space (S),

the filter unit (75) includes a filter box (90) and an air filter (76) housed in the filter box (90), and

the air filter (76) includes a filter substrate (77a,77b) made of a membrane filter having waterproofness and air permeability, and a fibrous coating layer (78a,78b) covering a surface of the filter substrate (77a,77b) through which air is sucked and absorbing water.

2. The container refrigeration apparatus of claim 1, wherein

the air filter (76) is a pleated filter having a plurality of pleats (76a).

3. The container refrigeration apparatus of claim 2, wherein

the air filter (76) is arranged so that the pleats (76a) extend in a vertical direction.

4. The container refrigeration apparatus of claim 1 any one of claims 1 to 3, wherein

the air filter (76) includes a stack of a plurality of filter substrates (77a, 77b).