

Reactor for the high-pressure non-catalytic synthesis of melamine from urea, comprising coaxial inner reaction zone (6) and outer reaction zone (7) wherein a crude melamine is formed in the inner reaction zone and contacted with gaseous ammonia for stripping in the outer reaction zone, wherein a gaseous phase liberated in the outer zone is collected in a gas collection chamber (12) above the reaction zones, wherein the crude melamine melt is transferred from the inner zone into the outer zone via a submerged liquid passage below the liquid level to provide a liquid seal between the chambers.