

Notes on the function **gsw_CT_maxdensity_exact(SA, p)**

Notes written 6th April 2011

This function, **gsw_CT_maxdensity_exact(SA, p)** calculates the Conservative Temperature at which the density of seawater is a maximum, at given values of Absolute Salinity and pressure.

This function is essential two calls to other GSW functions, namely

```
t_maxdensity_exact = gsw_t_maxdensity_exact(SA,p);  
CT_maxdensity_exact = gsw_CT_from_t(SA,t_maxdensity_exact,p);
```

That is, first the *in situ* temperature at which the density is maximal (at given SA and p) is found from **gsw_t_maxdensity_exact(SA,p)**, and then this value of *in situ* temperature is converted into Conservative Temperature using **gsw_CT_from_t**.