With some versions of nvcc and glibc compilation errors occur; reported on gmx-users first and second as well as by multiple other projects.

The issue seems to be cause by a string.h change in glibc and I've reproduced it with CUDA 6.5, 7.0 and 7.5, but not with 8.0.

The workaround being suggested in various places is to add -D_FORCE_INLINES to the CUDA compiler command line, which disables the new code path in string.h. It is not yet clear what other effects that has in other glibc headers, but some quick grepping suggests it is specific to string-handling headers. In that case we don't care, and can just deploy the hack.

We could compile a test CUDA program (with execute_process()?) I'm not sure how we arrange to call nvcc now) and add the flag if that fails, and then give up if there's a further problem. That infrastructure could also help address #1616
nvcc -c test.cu -ccbin/path/to/compiler/binary
and checking its retval.

#5 - 06/30/2016 09:35 PM - Mark Abraham
- Status changed from Fix uploaded to Resolved

Applied in changeset e2cd2e2a10c7259ed58ddff926d0d5b0a38015c1.

#6 - 07/05/2016 12:40 AM - Mark Abraham
- Status changed from Resolved to Closed

#7 - 08/05/2016 12:33 AM - Mark Abraham
- Related to Bug #2022: Compilation fails with CUDA and gcc 5 added