[0014] Today, therefore, there is a need for a process for synthesis of methyl mercaptan that does not exhibit the drawbacks encountered in the known processes, thus being more environmentally friendly and less eco-toxic, but also safer, while preserving the high yields and selectivities, or even with yields and selectivities which are improved relative to those of the known processes, while being a process which is operated as economically as possible.

[0015] It has now been found that it is possible to remove the aforementioned drawbacks, entirely or at least partly, by virtue of the process for preparing methyl mercaptan in accordance with the present ~~invention~~disclosure, which is detailed in the description hereinafter. The process of the present ~~invention~~ disclosure makes it possible more particularly to resolve a large number of the drawbacks in the processes based on reactions (1) and (2) as described above.

[0016] Accordingly, in a first aspect, the present ~~invention~~ disclosure provides a process for preparing methyl mercaptan, batchwise or continuously, preferably continuously, said process comprising at least the following steps:

a) reaction of at least one hydrocarbon charge in the presence of hydrogen sulphide (H_2S) and optionally of sulphur (S) to form carbon disulphide (CS_2) and hydrogen (H_2),

b) hydrogenation reaction of said carbon disulphide (CS_2) in the presence of said hydrogen (H_2), both obtained in step a), to form methyl mercaptan (CH_3SH), hydrogen sulphide (H_2S) and optionally hydrogen (H_2),

c) optionally, but preferably, recycling said hydrogen sulphide (H_2S) formed in step b) to step a), and

d) recovery of the methyl mercaptan.

[0017] This process has the very great advantage of consuming the hydrogen sulphide (H_2S) which is produced during the reaction, and in some cases even doing so stoichiometrically as indicated later on below, hence meaning that all the hydrogen sulphide consumed in the process of the invention is produced by said process. Therefore, the process ~~of the invention~~ as defined above avoids any addition, and even in some cases any removal, of hydrogen sulphide (H_2S) in excess, or else avoids the additional synthesis of hydrogen sulphide (H_2S), as is sometimes required with the known processes of the prior art.

[0018] Moreover, the process ~~of the present invention~~ as defined above is a process which is simple to perform, is of low eco-toxicity and is economical. The process ~~of the invention~~as defined above also makes it possible to obtain a high yield and a high selectivity in terms of methyl mercaptan. In the