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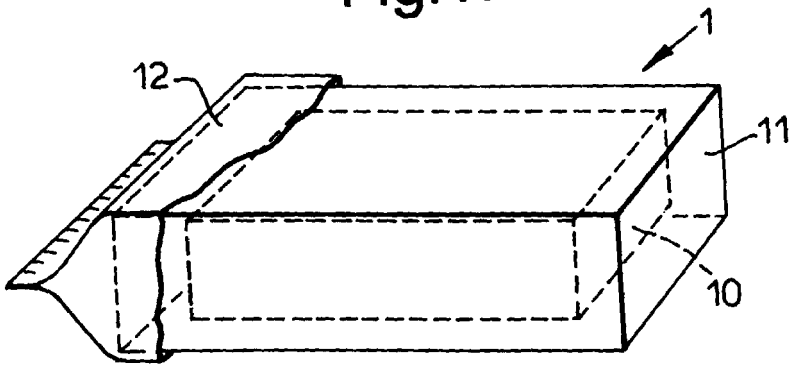
(54) Disposal means

(57) An alkali-disposable ostomy bag 20 is disposed of in a wc 14 using a tablet 1 having inner and outer portions. The inner portion 10 is of an alkai and this is covered by the outer portion 11, which is a non-irritating mixture of a water-softening agent and a surfactant. The tablet 1 can be handled safely by the user because the alkali 10 is covered by the outer portion 11.

Fig.1.



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Description

[0001] This invention relates to tablets for use in disposing of an article, the tablet including a first water-soluble substance capable of promoting disposal of an article when the article and tablet are immersed in water.

[0002] It can be an advantage to be able to dispose of articles by flushing in a wc, particularly where the articles are soiled, such as ostomy bags, sanitary items, diapers or the like. The articles can be made of water-disintegratable material but this makes them vulnerable to damage during use if they come into contact with water. It has been proposed instead to make such articles from a material that is resistant to water but will break up on contact with an alkali. Thus, the article would remain intact during use and could be exposed to water without damage. When it is necessary to dispose of the article, an alkali is added to water in the wc pan so that the article will be broken up sufficiently to be flushed away freely. The alkali could be in the form of a liquid, powder or tablet. Examples of alkali-disposable ostomy bags are described in GB2195919, GB2201372, GB2257056 and GB2324761.

[0003] Although such an arrangement for disposal can function satisfactorily, there is a problem in ensuring that the user avoids contact with the alkali, since this could cause skin irritation. Where the user needs to carry the alkali with him, this can be a particular problem. Although the alkali can be in a dry form protected in a sachet or the like before use, there is still a risk of contact with the alkali when it is removed from the wrapping. There can also be a problem using alkali in hard water areas because the presence of calcium and magnesium salts in the water renders the alkali less effective when attacking the article.

[0004] It is an object of the present invention to provide alternative disposal means.

[0005] According to one aspect of the present invention there is provided a tablet of the above-specified kind, characterised in that the first substance is provided as an inner portion, that the tablet has an outer portion surrounding the inner portion of a second water-soluble substance different from the first substance, and that the second substance includes a water-softening agent and is substantially non-irritating to the skin such that the tablet can be handled safely by holding the outer portion prior to immersion.

[0006] The first substance preferably includes an alkali and the second substance is preferably a mixture of a surfactant and a water-softening agent. The water-softening agent may be selected from a group comprising: ion-exchange resins, polycarboxylates, zeolites, sodium carboxylates, potassium carboxylates, phosphates, phosphites, phosphonates, sulphonates and sulphates. The tablet may include an effervescent agent.

[0007] According to another aspect of the present invention there is provided a method of disposing of an article, including the steps of: providing a tablet including an inner portion of a first water-soluble substance capable of promoting disposal of the article when the article and tablet are immersed in water, and an outer portion surrounding the inner portion of a second water-soluble substance different from the first substance, the second substance being substantially non-irritating to the skin such that the tablet can be handled safely by holding the outer portion prior to immersion; placing the tablet in a wc pan such that the outer portion dissolves and allows the first substance to dissolve; placing the article in the wc pan so that it is broken down by the first substance; and flushing the wc.

[0008] The article may be an ostomy bag. The first substance preferably includes an alkali.

[0009] A tablet for use in disposing of alkali-disposable ostomy bags will now be described, by way of example, with reference to the accompanying drawing, in which:

Figure 1 is a perspective view of the tablet; and

Figure 2 illustrates the tablet in use.

[0010] With reference first to Figure 1 there is shown a tablet 1 of rectangular shape, although it could be formed of any shape. The tablet 1 comprises two portions: and inner portion 10 and an outer layer or portion 11. The inner portion 10 is of a water-soluble alkali, which may be either organic or inorganic in nature. The outer portion 11 is of a substance that will not cause skin irritation and it completely surrounds the inner portion 10 so that the tablet can be handled safely, even by people with sensitive skin. More particularly, the outer portion 11 comprises a mixture of a surfactant and a water-softening agent. The surfactant may be an ionic surfactant containing sodium dioctyl sulphosuccinate (eg Aerosol OT75 - Aerosol is a Registered Trade Mark of Cyanamid). The water-softening agent may be, for example, selected from one or more of the following: ion-exchange resins; polycarboxylates; zeolites; sodium or potassium carboxylates; phosphates; phosphites; phosphonates; sulphonates and sulphates. With some water-softening agents, a surfactant may not be needed. The water-softening agent may be mixed with another substance as a part of an organic or inorganic matrix or polymer. Prior to use, the tablet is protected in an outer foil or sachet 12.

[0011] With reference now also to Figure 2, the tablet 1 is shown used with an alkali-disposable ostomy bag 20, such as described in GB2195919, GB2201372, GB2257056 or GB2324761. The construction of the bag 20 is not important to an understanding of the present invention, the bag being made of a conventional material that is resistant to water at neutral pH but that is broken up on contact with an alkali sufficiently to enable the bag and contents to be flushed away freely. In

use, the tablet 1 is first removed from its wrapping 12 and is dropped in the pan 13 of a wc 14. Because the user only contacts the outer portion 11 of the tablet 1 he can handle the tablet safely. The outer portion 11 of the tablet 1 containing the water-softening agent dissolves first in the water in the pan 13. When the underlying inner alkali 10 is exposed, this also starts to dissolve. The water will already have been largely softened by the outer layer 11 before the alkali 10 is dissolved, thereby increasing the effectiveness of the solution for degrading the bag 20. The speed at which the tablet 1 dissolves may be further increased by adding an effervescent agent to either the inner, outer or both portions of the tablet. When the tablet 1 has dissolved, the user drops the bag 20 into the water in the pan 13, in which the pH has now been raised to about 10. The bag 20 is broken down by the alkali and, after a few minutes, can be flushed away without risk of blockage.

[0012] The arrangement of the tablet and article of the present invention, therefore, makes the disposal of alkali-disposable articles easier for the user since the user does not have to take special precautions to avoid contacting the alkali. The incorporation of a water-softening agent in the outer portion allows the solution to reach its optimum state quickly and, therefore, reduces the total time taken for disposal. This is an important advantage for users in that it reduces embarrassment.

[0013] The tablet could take various different forms and include various different substances. The inner portion need not be of an alkali but could be of any other substance capable of promoting disposal of an article, for example, it could be an acid and used to dispose of acid-disposable articles. The tablet could be used to dispose of various articles, such as sanitary wear, diapers or the like and is not confined to use with stoma bags.

Claims

1. A tablet (1) for use in disposing of an article (20), the tablet including a first water-soluble substance (10) capable of promoting disposal of an article when the article and tablet are immersed in water, characterised in that the first substance is provided as an inner portion (10), that the tablet has an outer portion (11) surrounding the inner portion of a second water-soluble substance different from the first substance, and that the second substance includes a water-softening agent and is substantially non-irritating to the skin such that the tablet (1) can be handled safely by holding the outer portion (11) prior to immersion.

2. A tablet according to Claim 1, characterised in that the first substance (10) includes an alkali.

3. A tablet according to Claim 1 or 2, characterised in that the second substance (11) is a mixture of a surfactant and a water-softening agent.

4. A tablet according to any one of the preceding claims, characterised in that the water-softening agent is selected from a group comprising: ion-exchange resins, polycarboxylates, zeolites, sodium carboxylates, potassium carboxylates, phosphates, phosphites, phosphonates, sulphonates and sulphates.

5. A tablet according to any one of the preceding claims, characterised in that the tablet (1) includes an effervescent agent.

6. A method of disposing of an article (20), including the steps of: providing a tablet (1) including an inner portion (10) of a first water-soluble substance capable of promoting disposal of the article when the article and tablet are immersed in water, and an outer portion (11) surrounding the inner portion of a second water-soluble substance different from the first substance, the second substance being substantially non-irritating to the skin such that the tablet (1) can be handled safely by holding the outer portion (11) prior to immersion; placing the tablet (1) in a wc pan (13) such that the outer portion (10) dissolves and allows the first substance (11) to dissolve; placing the article (20) in the wc pan (13) so that it is broken down by the first substance; and flushing the wc.

7. A method according to Claim 6, characterised in that the article is an ostomy bag (20).

8. A method according to Claim 6 or 7, characterised in that the first substance (10) includes an alkali.

Fig.1.

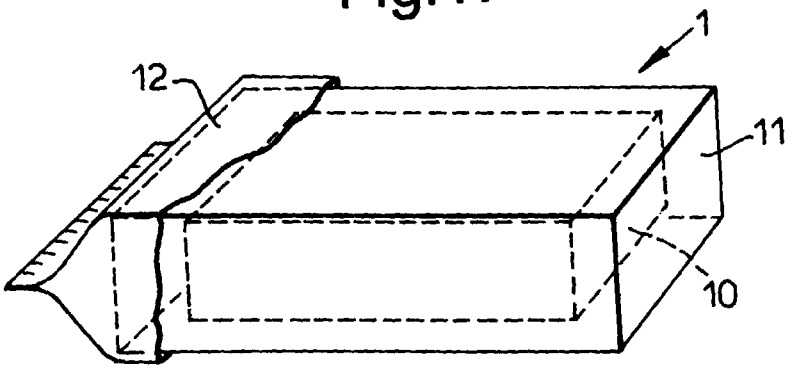

Fig.2.