Aromatic waters:

Are clear, aqueous, solution saturated with volatile oil or other aromatic or volatile substance. They are saturated solution usually of volatile oils or similar substance in distilled water .

Like other waters it is nearly colorless and clear liquid, possessing the pleasant odor and taste of fresh rose blossoms but free from empyreuma, mustiness, and fungal growth. This can be used as perfumed vehicle in Rose Water not potent because of the very small proportion of the active ingredient present in them.

They are in general used as flavored and perfumed vehicles .industrially may be used as liquid phase in the preparation of emulsion or suspension for substance with undesirable test to mask this test. Volatile substances used for the preparation of aromatic waters should be of pharmacopoeial quality or of best quality if finest flavor is desired in case of unofficial preparations. Aromatic water prepared from essential oil like peppermint and anise water have some carminative properties.

Examples of Aromatic Water

- Cinnamon Water NF: It is a clear, saturated solution of cinnamon oil in purified water prepared by either of the official processes. It can be used as a flavored vehicle.
- Orange Flower Water NF: It is a saturated solution of the odoriferous principles of the flowers of Citrus Aurantium Linne (Family Rutaceae). The fresh flowers with water are distilled. Then the excess volatile oil is separated from the clear water portion of the distillate. It is nearly colorless, clear or only faintly distillate. It is nearly colorless, clear or only faintly opalescent with an odor of orange blossom. It must be free from empyreuma, mustiness, and fungoid growth. It can be used as a flavor vehicle and perfume in solutions, syrups and elixirs.

- Peppermint Water USP : It is a clear, saturated solution of peppermint oil in purified water, prepared by either of the official processes. It can be used as a flavored vehicle and carminative. The usual dose may be given 15ml.
- Strong Rose Water NF: It is a saturated solution of the odoriferous principles of the flower of Rosae centifolia Linne (Family Rosacease). The fresh flowers with water are distilled, then the excess volatile oil is separated from the clear water portion of the distillate.

Preparations of Aromatics Waters

Most of the substance in the aromatic waters have very low solubility in water , and even through either may be saturated , its concentration of the aromatic substance is low concentration.

Aromatic water substance prepared either by distillation or solution or alternative substance.

Formulas for concentrated of the aromatic principles containing of :

- Alcoholic
- Solubilizing agent

Manufactured as concentrated water and to prepare aromatic water the concentrated are diluted with water before use.

1/ Preparation by Distillation

Most of aromatic water prepared by distillation, however it is the most ancient and satisfactory method for making this class of preparations.

Procedure of Distillation:

Place the odoriferous portion of the plant or drug in a suitable still with sufficient purified water and distill most of the water, avoiding the development of empyreumatic odors through the charring or scorching of the substances. Separate

the excess of the oil form the distillate and preserve or use the clear water portion, filtering if necessary.

In Orange flower or Rose water where the flavor or odor are in small amount and delicate, the distillate is returned several times to the still with fresh portions of flowers, consequently the waters produced are commercially known as double distilled, triple distilled, or quadruple distilled according to the number of re-distillation. This process is known as cohobation.

Disadvantages:

- Not practical nor economically feasible to use this method in most case
- It is the slowest and most expensive the two methods,

Advantages:

Used for preparation of aromatic water from fresh plant. Strong rose water and orang flower water can't be prepared by other method

2/ Preparation by Solution

There are two method of preparation by solution for aromatic waters, which are Direct Solution or Alternate Solution method.

A. Direct Solution Method

It is done by shaking two grams or 2 ml (if liquid) of the volatile oil substance (suitably comminuted if a solid) with 1000 ml of purified water in a container of sufficient capacity. Repeat the shaking several times during a period of 15 minutes. Set aside for 12 hours or longer, filter through wetted filter paper and add purified water through the filter to make the product measure 1000 ml.

This method saves time and equipment. However, agitation is not recommended when the excess of volatile oil is allowed to remain while the water required is drawn off.

Disadvantage:

- In spite of repeated filtration it is difficult to obtain a brilliantly clear preparation owing to formation of extremely fine particle .
- Time consuming method .
- May be need to use boiling water so may be effect on activity of the ingredient.

Advantage:

- easy method
- simple equipment

B. Alternate Solution Method

It is done by incorporating thoroughly the volatile oil (or the suitably comminuted volatile solid) with 15 g of talc or with a sufficient quantity of purified siliceous earth or pulped filter paper. Agitate the mixture several times during 10 minutes with 1000 ml of purified water. Filter, return first portion if necessary to obtain clear filtrate. Add sufficient amount of purified water through the filter to make the product measure 1000 ml.

By this process water can be prepared promptly with only 10 minutes agitation thus it is the process most frequently employed.

Talc, purified siliceous earth, or pulped filter paper classified as dispersing agent greatly increases the surface of volatile substances, insuring more rapid saturation of the water and forms an efficient filter bed, thus producing a clear solution.

Magnesium carbonate was formerly used as dispersing agent but its slight and basic nature produced alkaline water which precipitates alkaloids and similar substances. Likewise objectionable are the use of calcium phosphate, kaolin, pumice, charcoal, precipitated chalk because calcium ion present in water dissolves slight quantity of very slightly soluble phosphates (or other slightly soluble calcium salts) form insoluble salts with many anions. Charcoal and other adsorbent tend to remove odoriferous principles.