CHAPTER 1

AROMATIC WATERS

The British Pharmacopoeia (BP) defines aromatic waters as clear, saturated aqueous solutions of volatile oils or other aromatic or volatile substances.

Aromatic waters are saturated solutions (unless otherwise specified) of volatile oils (e.g. Rose oil, peppermint oil) or other aromatic or volatile substances, e.g. Camphor in purified water. Aromatic waters are prepared from a number of volatile substances, including peppermint oil, rose oil, orange flower oil, spearmint oil, anise oil, wintergreen oil, camphor and chloroform. Naturally, they possess an odor and taste similar to that plant or volatile substance from which they are prepared. Aromatic waters are clear and free from solid impurities and are free from empyreumatic (smoke like) or foreign odors. Most of the aromatic substances in the preparation of aromatic waters have very low solubility in water and even though water may be saturated, its concentration of aromatic material is still rather small. The volatile substances from which the aromatic waters are to be prepared should be of purest quality.

Aromatic waters can be categorized in two types as-

1. **Simple aromatic waters:** They contain purified water as a solvent but do not contain alcohol and are mainly used as vehicles e.g. Chloroform water.
2. **Concentrated aromatic waters:** They contain alcohol as solvent for the volatile constituents. Examples of concentrated aromatic waters are Camphor Water BP, Concentrated Peppermint Water BP, Concentrated Caraway Water BPC, Concentrated Cinnamon Water BPC, Concentrated Dill Water BPC, Concentrated Anise Water BPC etc.

Methods of Preparation

Aromatic waters may be prepared by distillation or solution of the aromatic substance, with or without the use of dispersing agents.

1. Distillation Method

The distillation method involves the placing of the coarsely ground odoriferous portion of the plant or drug from which the aromatic water is to be prepared in a suitable still, with sufficient purified water. Most of the volume of water is then distilled. The excess oil collected with the distillate rises to the top of the aqueous product and is removed. The remaining aqueous solution, saturated with volatile material requires clarification by filtration. This is the common method of preparation of aromatic waters although it is slow and expensive one, e.g. Strong Rose Water NF and Orange Flower Water NF are prepared by this method. These waters have active volatile constituents in small quantities so it may be necessary to repeat the distillation process several times.

2. Solution Method

This method is simpler, quicker and more economical as compared to distillation method. In this method, aromatic water is prepared by intermittently shaking 2 ml (if liquid) or 2 g (if solid) of the volatile substance with 1000 ml of purified water in suitable container for a period of 15 minutes. After the period of agitation the mixture is set aside for 12 hours or longer to permit the excess oil and the solid substance to settle. Without further agitation the mixture is passed through a wetted filter paper and purified water added as needed to bring the volume of the filtrate up to the prescribed quantity.

3. Alternative Solution Method

By this method, the volatile oil or suitably comminuted aromatic solid is thoroughly incorporated with 15 g of powdered talc or a sufficient quantity of kieselghur or pulp filter paper and to this mixture is added 1000 ml of purified water. The resulting slurry is thoroughly agitated several times for the period of 30 minutes and then filtered. Powdered talc, kieselghur and pulp filter paper work as filter aid which renders the formulation more clear and also as distributing agents for the aromatic substances that ultimately increases the surface area of aromatic substances exposed to the solvent action of water. The distributing agents should be inert in nature.

Preparation of Concentrated Aromatic Water

These products are alcoholic, non aqueous preparations containing 2% of volatile oils. They are 40 times stronger than the ordinary aromatic waters. Many volatile oils contain aromatic part and non-aromatic part. The aromatic portion is much more soluble in a

weak alcohol than the non-aromatic portion. Hence when a solution of the oil in 90% alcohol is diluted with a limited amount of water the aromatic portion of the oil remains in solution while the non-aromatic portion is precipitated off, separating as an oily layer. Therefore 50 g of talc is added for 1000 ml of preparation, which acts as a distributing agent, and will absorb the non-aromatic part. The solution is agitated and set aside for a few hours and filtered.

Therapeutic Uses

Aromatic waters are pharmaceutical aid and used principally for perfuming and flavoring the formulation. They can be used as an excipients or bases or vehicles for formulation of other pharmaceutical preparations. Aromatic waters may be used for some special purposes like,

(a) Camphor water has been used as the vehicle in ophthalmic solutions owning to its ability to contribute refreshing and stimulating effect to the preparation.

(b) Rose water has an antioxidant activity. The Rose water cleanses, tones and protects skin from harmful environmental impacts.

(c) Hamamelis water known as witch hazel is employed as a rub, perfume and as an astringent in various cosmetic preparations, particularly in after-shave lotions.

(d) Chloroform water has been used as preservative apart from its flavoring nature.

Dose

The dose of simple aromatic waters is usually 15 to 30 ml but varies from water to water.

Storage Conditions

Aromatic waters deteriorate with time and hence should be made in small quantities and protected from intense light and excessive heat. They should be stored in airtight, light resistance container in cool place.

Aromatic waters should be protected from strong light and preferably stored in containers which are stoppered with purified cotton to allow access of some air but to exclude dust.

Specific Labeling Requirement

The label should have the caution ‘PROTECT FROM SUN LIGHT’ with red ink due to the presence of volatile constituent in the preparation. This caution is more important in case of Chloroform water as chloroform gets converted into poisonous phosgene gas.

Examples of Aromatic Waters

1. Chloroform Water BP

Composition	Method of Preparation	Caution
1. Double-strength chloroform water- Chloroform- 0.5 ml Purified water q.s.-100 ml **2. Concentrated chloroform water-** Chloroform-10 ml Ethanol- q.s. Purified water q.s.-100 ml	Chloroform water can be prepared simply by adding chloroform (2.5 ml) to purified water (1000 ml) and shaking frequently until the chloroform is in solution. For double strength chloroform water, one part of the concentrated chloroform water should be diluted with 19 parts of purified water (1 in 20 dilutions); this must be further diluted 1:1 to produce a product with a final chloroform content of 0.25% v/v. To produce a solution having an equivalent strength to chloroform water, one part of concentrated chloroform water should be diluted with 39 parts of purified water (1 in 40 dilutions).	In preparations having a high content of dissolved solids a lower concentration (0.15% v/v) may be necessary to avoid problems with "salting out" of the chloroform. Further chloroform forms harmful phosgene gas in presence of light.

Label

CHLOROFORM WATER BP **(50 ml)**		
Composition: Each 50 ml contains, Chloroform- 0.125 ml Purified water q.s.- 50 ml **Dose:** 15 to 30 ml **Storage:** Store in airtight, light-resistant container in cool place.	**CHLORWATER** (Aromatic Water) (Used for perfuming, flavoring the formulation, as vehicle and also as a preservative at 25% v/v) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 2V/2010 **Batch No.-** YM 0512 **Mfg. Date-** Mar. 2011 **Exp. Date-** Feb. 2012 **M.R.P.-** Rs. 15.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

2. Camphor Water BP; USP

Camphor [$C_{10}H_{16}O$], is a ketone or a keto-tetrahydro-cymene, obtained from the camphor tree, *Cinnamomum camphora.*

Composition	Method of Preparation	Caution
1. Camphor Water BP- Camphor- 1 part Purified Water q.s.- 1000 parts **2. Concentrated Camphor Water BP-** Camphor- 40 g Alcohol (90%)- 600 ml Purified water q.s.- 1000 ml **3. Camphor Water USP-** Camphor- 8 g Alcohol- 5 ml Precipitated calcium phosphate- 5 g Distilled water q.s.- 1000 ml	Camphor is triturated with alcohol and precipitated calcium phosphate, water is added gradually and filtered. The first trituration with alcohol, renders it more readily pulverizable by destroying the tenacity with which the particles of camphor adhere together, the second trituration with the calcium salt subdivides it still more finely, so that the water can more readily act upon it, and produce the desired medicated water. The filtration removes the calcium phosphate and excess of camphor from the solution. **Note-** Ice-cold water will dissolve more camphor than water at the ordinary temperature.	Purified water should not be added to the alcoholic solution of camphor because doing this whole of the camphor will be precipitated out which will not redissolve easily on shaking.

Label

CAMPHOR WATER USP (50 ml)		
Composition: Each 50 ml contains, Camphor- 0.4 g Ethanol (90 %)- 0.25 ml Distilled water q.s.- 50 ml **Dose:** 30 to 60 ml **Storage:** Store in airtight, light-resistant container in cool place to prevent the volatilization of camphor.	**CAMPWATER** (Aromatic Water) (Flavoring agent, mild carminative in flatulence, diaphoretic, expectorant and as an antiseptic for the alimentary canal) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 5D/2010 **Batch No.-** AK 0502 **Mfg. Date-** Jun. 2011 **Exp. Date-** May. 2012 **M.R.P.-** Rs. 20.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

It mildly excites the circulation, dilating the superficial vessels and slightly increasing the cardiac output. It also directly excites cerebrum. It is also used for its calming influence in hysteria, nervousness, neuralgia and for serious diarrhea.When applied externally, camphor dilates the vessels of the skin, and is used as a rubefacient and mild counter-irritant in rheumatisms, sprains bronchitis and in inflammatory conditions. Campor has great value in colds, chills, and in all inflammatory complaints.

Camphor is present in several over-the-counter (OTC) compounds and therefore may be ingested by small children. Because seizures may follow ingestion of certain amounts, so appropriate treatment is needed, including the use of anticonvulsant.

3. Rose Water USP/NF

Rose water was first obtained by distilling roses in Persia (Iran). Rose perfumes are made from attar of roses or rose oil, which is a mixture of volatile essential oils, obtained by steam-distilling the crushed petals of roses. Rose water is the hydrosol portion of the distillate of rose petals. Rose water is simply water that has been flavored with roses by distillation of rose petals.

The unexpanded petals are plucked as a whole from the calyx, and the lighter-colored basal portions cut off. They are used both fresh and dried; in the latter case being gently sifted to remove any stamens. The petals generally occur in little conical masses, easily separated into the individual petals, which are obcordate in shape, velvety and of a deep purplish-red color. They possess a delicate, rose-like aroma, and a slightly astringent taste.

Rose water can be prepared from Rose (*Rosa centifolia,* Family- Rosaceae) flowers by distillation method.

Rose water is colorless, clear, strong, pleasant odor and taste of fresh rose blossoms, free from empyreuma, mustiness or fungi growths; neutral or slightly acidic.

Rose water has antioxidant activity. Extract of the rose is capable of relieving skin ailments caused by circulation problems. It can reduce the redness and improve the general condition of the skin. It is suitable for all skin types. Rose water also is useful for hair. It makes hair glossy and healthy looking. It is a constituent of *Mistura Ferri Composita*, and is used as a flavoring agent in the preparation of the BP Rose basis for lozenges. Rose water has a very distinctive flavor and is also used for religious purposes.

Rose water is better known as an ingredient in cosmetics than as food flavoring. The official Rose Water Ointment NF formulation was developed by Galen. It should be diluted with twice its volume of distilled water immediately before use, unless otherwise specified.

Composition	Method of Preparation
Rose oil- 2 ml Ethanol (90 %)- 2 ml Purified water q.s.- 100 ml	Rose Water is prepared by mixing rose oil (2 ml) and ethanol (2 ml) then make up the volume 100 ml with purified water. Rose Water USP is prepared by mixing equal volumes of Stronger Rose Water and distilled water. Stronger Rose Water (Aqua Rosae Fortior, USP) is obtained by distilling the flowers of *Rosa damascene* (Family- Rosaceae).

Label

ROSE WATER NF **(50 ml)**		
Composition: Each 50 ml contains, Rose oil- 1 ml Ethanol (90 %)- 1 ml Purified water q.s.- 50 ml **Dose:** 8 to 30 ml **Storage:** Store in airtight, light-resistant container in cool place.	**ROSE SHINE** (Aromatic Water) (Flavoring agent, mild carminative, diaphoretic, for skin ailments, used in lotions for its fragrant odor and as a mild astringent) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 2J/2010 **Batch No.-** VD 0311 **Mfg. Date-** Aug. 2011 **Exp. Date-** July 2012 **M.R.P.-** Rs. 35.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

4. Peppermint Water USP

Peppermint oil is extracted from *Mentha piperita* (Family- Labiatae). The main chemical components of peppermint oil are menthol, menthone, 1,8-cineole, methyl acetate, methofuran, isomenthone, limonene, β-pinene and α-pinene. Peppermint oil is non-toxic and non-irritant in low dilutions, but sensitization may be a problem due to the menthol content. It can cause irritation to the skin and mucus membranes and should be kept well away from the eyes. Peppermint oil should be stored in closed containers kept in a dry place, avoiding sunshine and rain.

Composition	Method of Preparation	Caution
Oil of peppermint- 2 ml Precipitated calcium phosphate- 4 g Distilled water q.s.- 1000 ml	Triturate the oil of peppermint with the specified quantity of precipitated calcium phosphate, added the distilled water gradually, under constant trituration, and then filter.	It should be avoided during pregnancy and should not be used on children under seven.

Label

PEPPERMINT WATER USP **(50 ml)**		
Composition: Each 50 ml contains, Oil of peppermint- 0.1 ml Distilled water q.s.- 50 ml **Dose:** 10 to 40 ml **Storage:** Store in well-closed, light-resistant container in cool place to prevent the volatilization of peppermint oil.	**PEPMINT WATER** (Aromatic Water) (Used as an antispasmodic and carminative in flatulence of the gastrointestinal tract, cramping and bloating, flatulent colic to relieve nausea and vomiting, and as a gentle aromatic stimulant) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 5D/2010 **Batch No.-** BN 0115 **Mfg. Date-** Jun. 2011 **Exp. Date-** May. 2012 **M.R.P.-** Rs. 20.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

For the digestive system, peppermint oil is effective for a range of ailments, as it stimulates the gall bladder and the secretion of bile. It is used for colic, cramps, dyspepsia, spastic colon, flatulence and nausea and can relieve pain in cases of toothache, aching feet, rheumatism, neuralgia, muscular pains and painful periods. On the skin, peppermint oil is used to relieve skin irritation and itchiness and also helps to reduce skin redness, where inflammation is present. It is used for dermatitis, acne, ringworm, scabies, pruritus and also relieves itching, sunburn and inflammation of the skin, while at the same time having a cooling action. Peppermint oil is excellent for mental fatigue and depression, refreshing the spirit and stimulating mental agility and improving concentration. It is helpful in apathy, shock, headache, migraine, nervous stress, vertigo and faintness and in general respiratory disorders, as well as dry coughs, sinus congestion, asthma, bronchitis, pneumonia, tuberculosis and cholera.

5. Dill Water BPC

It is a preparation containing a volatile oil extracted from the dill plant, *Anethum graveolens* (Family- Umbelliferae). As the main constituents, dill contains at least 2.5% volatile oil (50% carvone, plus limonene, eugenol, antheole and others), flavonoids (including kaempferol), coumarins, xanthone derivatives, triterpenes, phenolic acids, protein and fixed oil. Dill is a common ingredient in gripe water, given to relieve wind and colic in babies. It is used to treat flatulence in infants and is helpful in stomach upsets, gas and bloating.

Composition	Method of Preparation
Oil of Dill- 12.5 ml Alcohol (90%)- 70 ml Distilled water q.s.- 100 ml	Dissolve the oil of dill in the alcohol then added the distilled water gradually, shake after each addition and then filtered. One part of this solution corresponds to about 40 parts of Dill Water.

Label

DILL WATER BPC (50 ml)		
Composition: Each 50 ml contains, Oil of Dill- 6.25 ml Ethanol (90%)- 35 ml Distilled water q.s.- 50 ml **Dose:** 1 to 10 ml **Storage:** Store in well-closed, light-resistant container in cool place to prevent the volatilization of dill oil.	**DILL WATER** (Aromatic Water) (Used as carminative, aromatic, stomachic, antispasmodic, galactagogue, in flatulent dyspepsia and specifically indicated for flatulent pain in infants) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 5D/2010 **Batch No.-** GH 1025 **Mfg. Date-** Jun. 2011 **Exp. Date-** May. 2012 **M.R.P.-** Rs. 20.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

Marketed preparations

Active Ingredient(s)	Marketed Preparation (Manufacturer)
Rose Water	GULABARI **(DABAR)**
Dill Water	WOODWARD'S GRIPE WATER **(TTK HEALTH CARE LTD)**

EXERCISE - 1

Object

To prepare and submit 50 ml of Chloroform Water BP.

Theory

Aromatic waters are clear, saturated aqueous solutions of volatile oils or other aromatic or volatile substances. Aromatic waters may be prepared by distillation or solution of the aromatic substance, with or without the use of dispersing agents. Chloroform water is simple aromatic water, which contains purified water as a solvent but does not contain alcohol. It is saturated solution of chloroform in purified water.

Chloroform ($CHCl_3$) is a clear colorless liquid having specific gravity 1.474 to 1.479 and possesses characteristic odor with burning sweet taste. The solubility of chloroform is 1 in 800 parts of water. In the preparation of chloroform water, vigorous shaking is required to subdivide the chloroform in small globules for enhancing its solubility. Dispersing agents are not required in this preparation.

Formula

Ingredients	Quantity Required
Chloroform	2.5 ml
Purified water q.s. to	1000 ml

Apparatus

Glass beaker, measuring cylinder and volumetric pipette.

Procedure

Measure the required quantity of chloroform. Add sufficient quantity of purified water to make the required volume with constant stirring so that chloroform gets uniformly mixed. Transfer in clean amber colored glass container and close it tightly.

Category

Pharmaceutical aid.

Dose

15 to 30 ml.

Therapeutic Use

Chloroform water is used principally for perfuming, flavoring the formulation and also used as vehicle and preservative.

Storage

It should be stored in airtight, light resistance container in cool place. Aromatic waters deteriorate with time and it should be made in small quantities and protected from intense light and excessive heat.

Label

The label should have the caution 'PROTECT FROM SUN LIGHT' with red ink due to the presence of volatile constituent in the preparation; chloroform forms harmful phosgene gas in presence of light.

Specimen Label

The specimen label for Chloroform Water BP is given as:

CHLOROFORM WATER BP (50 ml)		
Composition: Each 50 ml contains, Chloroform- 0.125 ml Purified water q.s.- 50 ml **Dose:** 15 to 30 ml **Storage:** Store in airtight, light-resistant container in cool place.	**CHLORWATER** (Aromatic Water) (Flavoring agent, vehicle and preservative) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 2V/2010 **Batch No.-** YM 0512 **Mfg. Date-** Mar. 2011 **Exp. Date-** Feb. 2012 **M.R.P.-** Rs. 15.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

EXERCISE - 2

Object

To prepare and submit 50 ml of Camphor Water BP.

Theory

Aromatic waters are saturated solutions of volatile oils (e.g. rose oil, peppermint oil) or other aromatic substances (e.g. camphor). Camphor [$C_{10}H_{16}O$], is a ketone or a keto-tetrahydro-cymene, obtained from *Cinnamomum camphora.* Camphor occurs as a colorless, transparent, crystalline solid. It has a powerful penetrating odor, and pungent, somewhat bitter, taste, followed by a slight sensation of cold. It has specific gravity 0.986 to 0.996. Synthetic camphor differs from the natural camphor in being optically inactive instead of dextrorotatory. Camphor is readily soluble in alcohol (1 in 1.25), olive oil (1 in 4), and chloroform (4 in 1) but sparingly soluble in water (1 in 700). In the preparation of Camphor Water BP, alcohol acts as a distributing agent.

Formula

Ingredients	Quantity Required
Camphor	1 g
Ethanol (90%)	2 ml
Purified water q.s. to	1000 ml

Apparatus Used

Glass beaker, measuring cylinder and volumetric pipette.

Procedure

Measure the required quantity of camphor and dissolve in ethanol (90%). Add this solution in small quantities to the purified water with vigorous shaking after each addition. Afterward shake occasionally until all the camphor is dissolved. The addition of alcoholic solution to the purified water yields a finely divided precipitate of camphor, which redissolves easily on shaking. Transfer in clean amber colored glass container and close it tightly.

Category

Pharmaceutical aid.

Dose

30 to 60 ml.

Therapeutic Use

Camphor Water BP is used chiefly for flavoring purposes, but it has a mild carminative, diaphoretic, and expectorant action. Camphor Water BP is used as the vehicle in ophthalmic solutions owning to its ability to contribute refreshing, stimulating effect to the preparation.

Storage

Camphor Water BP should be stored in well-closed, light resistant container in cool place to prevent the volatilization of camphor.

Label

The label should have the caution 'PROTECT FROM SUN LIGHT' with red ink due to the presence of volatile constituents in the preparation.

Caution

Purified water should not be added to the alcoholic solution of camphor because this whole of the camphor will be precipitated out which will not redissolve easily on shaking. But the drop wise addition of alcoholic solution of camphor to the purified water will not cause this type of problem.

Specimen Label

The specimen label for Chloroform Water BP is given as:

CAMPHOR WATER BP (50 ml)		
Composition: Each 50 ml contains- Camphor- 0.05 g Ethanol (90%)- 0.1 ml Purified water q.s.- 50 ml **Dose:** 30 to 60 ml. **Storage:** Store in airtight, light-resistant container in cool place.	**CAMPWATER** (Aromatic Water) (Flavouring agent, Mild carminative, Diaphoretic and Expectorant) **PROTECT FROM SUN LIGHT** **NOT FOR INJECTION**	**Mfg. Lic. No.-** 5D/2010 **Batch No.-** CK 1523 **Mfg. Date-** Jun. 2011 **Exp. Date-** May. 2012 **M.R.P.-** Rs. 20.00 (Inclusive of all taxes) **Mfd. By:** YAVI PHARMA KANPUR ROAD, LUCKNOW UP- 226001

EXERCISE - 3

Object

To prepare and submit 50 ml of Rose Water NF.

Theory

Aromatic waters are clear, saturated aqueous solutions of volatile substances. Rose Water NF is a saturated solution of the odoriferous active constituents of the flowers of *Rosa centifolia* (Family- Rosaceae) prepared by distilling the fresh flowers with water and separating the excess volatile oils from the clear water portion of the distillate. It is colorless, clear, strong, pleasant odor and taste of fresh rose blossoms, free from empyreuma, mustiness, or fungoid growths. It is neutral or slightly acidic in nature.

Formula

Ingredients	Quantity Required
Rose oil	2 ml
Ethanol (90%)	2 ml
Purified water q.s. to	100 ml

Apparatus Used

Glass beaker, measuring cylinder and volumetric pipette.

Procedure

Measure the required quantity of rose oil and dissolve in ethanol (90%). Add this solution in small quantities to the purified water with vigorous shaking after each addition. Afterward shake occasionally until all the rose oil is dissolved. Transfer in clean, transparent glass container and close it tightly.

Category

Pharmaceutical aid.

Dose

8 to 30 ml.

Therapeutic Use

Rose Water NF is used chiefly for flavoring purposes, but it has a mild carminative, diaphoretic, and expectorant action. Rose Water NF has an antioxidant activity. It cleanses tones and protects skin from harmful environmental impacts. It is capable of relieving skin ailments caused by circulation problems. It can reduce the redness and improve the general condition of the skin. It is suitable for all skin types. Rose Water NF is prescribed in lotions for its fragrant odor, and as a mild astringent. It is better known as an ingredient in cosmetics. It is also useful for hair. It makes hair glossy and healthy-looking.

Storage

Rose Water NF should be stored in well-closed, light resistant container in cool place to prevent the volatilization of rose oil.

Label

The label should have the caution 'PROTECT FROM SUN LIGHT' with red ink due to the presence of volatile constituents in the preparation.

Specimen Label

The specimen label for Rose Water NF is given as:

<table>
<tr><th colspan="3">ROSE WATER NF
(50 ml)</th></tr>
<tr>
<td>Composition:
Each 50 ml contains,
Rose oil- 1 ml
Ethanol (90 %)- 1 ml
Purified water q.s.- 50 ml
Dose: 8 to 30 ml.
Storage: Store in airtight, light-resistant container in cool place.</td>
<td>ROSE SHINE
(Aromatic Water)
(Flavoring agent, Mild carminative, Diaphoretic and for skin ailments)

PROTECT FROM SUN LIGHT
NOT FOR INJECTION</td>
<td>Mfg. Lic. No.- 2J/2010
Batch No.- VD 0311
Mfg. Date- Aug. 2011
Exp. Date- July 2012
M.R.P.- Rs. 35.00
(Inclusive of all taxes)
Mfd. By: YAVI PHARMA
KANPUR ROAD,
LUCKNOW UP- 226001</td>
</tr>
</table>