



The Tress Caressed- Hair Oil Massage

It's a classic catch 22 situation. To reassure consumers, there are standards and regulations in place, and Government authorities overseeing, that they are implemented. There is a mandate that for testing products, NABL laboratories should be used. These laboratories are also set up and regulated by the Govt, so they mostly have facilities to test only what the standards mandate. The manufacturers set up standards for themselves to follow the parameters which can be tested. Consumer is given a report that says 'all is well'. Most brands pass all the tests but the product developed and marketed is far from the real story, which most times, is not even reflected in the tests, unless one digs and digs hard!

Take hair oils. Indians have a tradition where long tresses are nurtured with the help of pure oils, if used regularly. These oils are basically Mustard in the northern half and Coconut in the rest of India, both nutritionally rich and loaded with medicinal and curative properties. Both are not available in their pure form as hair oils anymore. Indian tresses have long been oiled and cared for with these oils but now no more.

Hair care products now flood the market, giving consumers choices which do nothing for them, except provide solutions for the problems created by the same market! These leave consumers to choose between the devil and the deep sea. Fast paced urban life styles, and women working away from homes, leave no leisure time for them to devote to self care, but then what is the market for? It offers one infinite variety in products which actually excel only in creating problems, so that new products by same companies can be offered to consumer as solutions for the problems that they created in the first place. These so called solutions generate a new set of problems for which new solutions are floated and we go round and round and round.

The consumer needs assurances, promises, deals, solutions, which are available in heaps but to what end, no one knows, or even cares. Have a problem? Search the shelves for solution, read, or, listen to, or, watch ads, and hey presto the solution presents itself.

So what did our tests find? All the parameters were addressed and most brands sailed through but then there was the classic catch - there was no 'real' oil, in other words, no mustard or coconut in any of the brands we tested : only mineral oil or liquid paraffin. No harm done, except that this oil has no nutrition, no medicinal qualities, no health properties. Yes the oils do have shelf life, good fragrance, no stickiness, good colour, excellent packaging - the works - in short everything except the oil that nourishes!

Read our report to find out which hair oil has how much mineral oil! Most times 90% or more!

Happy massaging!



Key Findings

- All the brands of hair oil were mineral oil based which was confirmed by presence of significant quantity of unsaponifiable matter test.
- Dabur Amla (36.46) was found with lowest unsaponifiable matter followed by Himani Navratna (43.16) and Hair & Care (59.32), however Clear (90.9) was found with highest followed by Himalaya Herbals (84.70) and Parachute Jasmine (83.91).
- In Dabur Amla, Hair & Care, Himalaya Herbals, Parachute Jasmine and Shanti Amla presence of fatty acids namely Myristolic, Saturated fat, MUFA, PUFA was detected which indicated that these brands had vegetable oil in their composition hence these are better than those brands which do not have fatty acids in their composition.
- None of the brands was found with microbiological as well as heavy metals contamination.
- Keo Karpin was found most acceptable in sensory as well as application tests.



Hair Oil

Hair oil is applied to the scalp for soothing and revitalising it. In India, three types of hair oils are manufactured and marketed by small-scale industry as well as by a few units in the organised sector of the industry. The type 1 contains vegetable oil or oils as base oil and type 2 contains only mineral oil as base oil, whereas type 3 contains a mixture of vegetable oil and mineral oil. In the present study hair oil of all three types of popular brands produced in the country have been taken into consideration. But the test findings revealed that all of them belonged to only Type-3.

Brand Tested

Name and rank of the brands are as follows:

Brand	Rank
Dabur Amla	1
Hair & Care	2
Keo Karpin	3
Parachute Jasmine	4
Dabur Sarson Amla	5
Himalaya Herbals	6
Himani Navratna	7
Shanti Amla	8
Clear	9
Bajaj Almond Drops	10
Cantharidine	11

Packing

As per the Indian Standard, the hair oil should be packed in eco-friendly suitable well-closed containers, not exceeding pack size of 1kg or 1 liter, and container should not have deleterious effect on the product.

Dabur Amla, Dabur Sarson Amla, Himalaya Herbals, Keo Karpin and Cantharidine had tamper proof packaging hence got full score. Bajaj Almond Drops was packed in a glass bottle.

Marking

All the brands were labeled properly with the Indian Standard labeling requirements but Bajaj Almond Drops, Himalaya Herbals, Himani Navratna and Cantharidine did not give the exact quantity of critical ingredients as required in the national standards. None of the brand had standard marking.

Physical Observation

All the brands passed physical observation test and got full score.

Net Quantity

All the brands were found to be containing the quantity of oil as claimed.

Acid Value

Acid value of a packaged product is related to the shelf life of that product. If acid value does not meet the requirement, it allows contamination of the product and reduces the shelf life. As per Indian Standards, it should not be more than 1.0.

All the brands were found within the maximum limit of acid value. Bajaj Almond Drops (0.10) was found with lowest acid value whereas Shanti Amla (0.30) had the highest.

Peroxide Value

It is a very important parameter where the peroxide value is used as a measurement of the extent to which rancidity (deterioration of end product is judged) reactions have occurred during storage. As per the Indian Standard, it should not exceed 10.0 milli-equivalent per 1000 gm of oil.

None of the brands crossed the maximum limit.

Viscosity

Viscosity is a measure of the resistance of a fluid to deform under either shear stress or extensional stress. It is commonly perceived as



"thickness", or resistance to flow. It is expected to be higher in hair oil.

Himani Navratna (46.91) was found most viscous among the tested brands we however Clear (23.43) was found less viscous.

Specific Gravity

Specific gravity is the ratio of the density of a material to the density of water. Materials which are lighter than water (specific gravity less than 1.0) will float. It is expected to be low in case of hair oils.

Clear (0.82) was found with lowest specific gravity however, whereas Himani Navratna (0.88) was found with highest.

Unsaponifiable Matter

Unsaponifiable matter includes those substances frequently found dissolved in fatty acids and drying oils which cannot be saponified by caustic treatment, but which are soluble in the normal fat solvents. Included are the higher aliphatic alcohols, sterols, pigments, and hydrocarbons. It is expected to be lower in hair oils. Unsaponifiable matter is the direct indicator of presence of mineral oil (Liquid Light Perraflin Oil or LLP) as permitted in the national standards but there is no maximum permissible limit.

Dabur Amla (36.46) was found with lowest unsaponifiable matter followed by Himani Navratna (43.16) and Hair & Care (59.32), however Clear (90.9) was found with highest followed by Himalaya Herbals (84.70) and Parachute Jasmine (83.91).

Fatty Acid Profile

We tested all brands of hair oil for fatty acid profile to judge whether these oils are vegetable oil based or not. Only Dabur Amla, Hair & Care and Himalaya Herbals found with identification and quantification of fatty acids in their composition. Rest

of the brands could not be quantified or identified with any fatty acids which indicates higher quantity of mineral oil.

Microbiological & Heavy Metals Tests

As per the Indian Standards in hair oil micro-organisms should not be more than 1000 per gram of oil.

As per the Indian Standards, Heavy metals, Lead (Pb) and Arsenic (As2O3) should not exceed 10 and 1 ppm respectively in hair oil.

All brands were found free from microbial contamination and met requirements for heavy metals content hence got full score of 6.

Sensory/Application Tests

We observed hair oil brands for their physical properties like Colour, Appearance, Fragrance, and Greasiness and after application impacts like 'feel on application', ease to comb and overall quality and acceptability of oils.

Keo Karpin was found good in colour, appearance, 'ease to comb' and fragrance parameters and scored top among all the brands followed by Parachute Jasmine and Himani Navratna.

In greasiness Dabur sarson amla was found better than the rest.

In feel after application Himani Navratna was liked the most.

Conclusion

Consumer VOICE conducted survey and identified the regular selling brands of hair oils in the retail markets for comparative testing of hair oils. Initially we examined the labels on the key ingredients used in the manufacturing of

Some Facts

There are different claims on how many strands of hair you can find on an average head, according to some reports available online it depends on the hair colour.

The number of strands of hair on a human head varies with colour:

BLONDE	-	140,000	strands
BROWN	-	110,000	strands
BLACK	-	108,000	strands
RED	-	90,000	strands

<http://htg.addr.com/didyou.htm>





Tips for oiling your hair

Oiling of hair should be done using some smart techniques to optimise its effectiveness. If you want to avoid hair fall and grow thick and shiny hair you can try the following hair oiling secrets.

Heat oil to a warm temperature before applying it on your hair.

Make partitions while oiling your hair. Rub oil in each partition.

Avoid using too much of oil. Start applying little to each part of head and then massage. Massaging is important than the quantity of oil you use.

Dip your finger tips in oil. Gently massage with finger on scalp by putting your hands inside hair.

Massage with your fingers at least for 10 to 15 minutes after oiling your hair.

Avoid washing your hair immediately after oiling. If you do not like to wear oily hair, you can oil it before going to bed. You can wash your hair the next day. For best results let the oil stay for one day on your hair. When you make the oil stay for longer time it soaks in the scalp better.

Oil your hair at least once a week. If your hair is very dry you should oil it at least twice a week.

Rub oil on the roots of your hair, it helps to improve blood circulation and make hair silky and strong.

<http://www.indiaparenting.com>

oils. We also examined the brands claims on the type of major claims, like Amla, Almonds, Sarson Herbs and other special claims. But surprisingly the major ingredient in almost all, except Dabur Amla and Himani Navratan hair oils, have used light liquid paraffin (LLP) oil or in simple terms as (claimed by most on their labels), mineral oil by more than 50% of quantity as the base oil.

The mineral oil was found up to 91%. Majority of hair oils (nine) have used between 62% to 91% of mineral oil of cosmetic grade which is very surprising. BIS has permitted use of LLP oil as ingredient for cosmetic products preparations namely hair oils and other cosmetic products. But maximum limit has not been laid down which is very strange. On the other side, Dabur Amla and Himani Navratan have used some vegetable oils as the base oil but did not mention the type of oil. There are two Amla based hair oils but the Amla extract oil is surprisingly in less than 2% i.e. in traces thus misleading the consumer, similar is the case with Bajaj Almond Drops oil. It contains almond oils in very few drops only (as almond oil being very-2 expensive) as more than 76% was mineral oil and over 20% was the vegetable oil thus grossly misleading the users. Same case with the Dabur Sarson Amla where the major quantity of base oil used is mineral oil (65.2%) and mustard including amla oil 40%. Thus again misleading the consumers claimed base oils like Sarson and Amla which were any case in minor quantity.

Initially hair oils were made from namely castor oil based or pure coconut oils. Both are sticky especially castor oil based that used to be very sticky & heavy with added intense fragrance people also now continue to use traditional oils as coconut and mustard oils as both are considered to be good for hair

& scalp nutrition and hair revitalisers. Later due to the growth of hair care industry, the addition of LLP oil was considered be least toxic and ideal for making hair oils non-sticky. Due to the non-sticky properties of LLP oil, it was permitted in the national standards for hair oil IS: 7123. But it should meet the quality requirements as per IS: 7299. In the mixture of vegetable oils & with mineral oils, no requirement of maximum limit have been prescribed in the national standards thus mineral oil is being used even up to 94.4% like by CLEAR, a non-sticky anti-dandruff hair oil.

All the brands did not certain any of the toxic metals as tested as per the laid down eco-mark criteria of MOEF, thus safe to use. All brands did not contain any pathogenic bacteria therefore safe to use when tested as per the BIS requirements.

Consumer VOICE recommends the tables of brands based on the category we prepared as per lower presence of mineral oils.

What Is Hair all About?

Hair basically consists of two parts- the hair follicle and the hair shaft. The hair follicle is the centre of the biological activity like hair growth, pigmentation whereas the hair shaft is considered to be dead and is mainly made of protein. It's important to take care of both the follicle and the shaft for healthy and good looking manageable hair. Coconut based hair oils penetrate both into the hair strand as well as the hair follicle. In fact coconut oil is one of the very few oils that penetrate upto the medulla which is the innermost layer of the hair strand.

Human beings have different hair types, from silver blonde, flaming red to jet black. Physical properties of hair are also important as it imparts beauty to the hair. The texture and





Category	Percent of Mineral oil	Brand
I	Up to 55%	Dabur Amla, Himani Navratna, Keo Karpin
II	Up to 75%	Dabur Sarson Amla, Hair & Care, Shanti Amla
III	Up to 95%	Bajaj Almond Drops, Clear, Himalaya Herbals, Parachute Jasmine, Cantharidine

sensories of hair, i.e the way hair appears and feels, is dependant on the health of hair and its physical properties. Regular application of oil is known to increase the strength of hair and prevent its breakage. Coconut based hair oils also help in aligning the cuticles of hair. Aligned hair cuticles make hair look healthy and adds to hair shine. When we comb hair we apply force to detangle hair. This often leads to hair breakage. Application of oil lubricates hair and reduces the force required to comb thereby preventing its breakage.

Hair behaves differently in different seasons. In summer the heat saps out vital moisture from the hair making it dry and brittle. Application of oil prevents loss of moisture and keeps hair soft and supple. In monsoons, hair tend to absorb a lot of moisture from the atmosphere due to high humidity. Hair may also frequently get wet when it rains. When hair is wet water enters into the hair shaft and when hair dries the water is released out.

If this cycle of absorption and release of water is repeated very frequently it leads to hygral fatigue which makes hair weak. Application of oil forms a protective covering on hair and prevents this absorption and loss of water and reduces hygral fatigue thereby maintaining the strength of hair.

Different hair styling techniques such as colouring, straightening and perming are commonly used. The chemicals, blow dryers or hot irons used for these treatments may cause severe damage to the hair shaft. But regular oiling of hair can prevent the further enhancement of this damage. It has been proved that regular hair oiling prevents the loss of protein from the chemically treated hair and also helps in maintaining the strength of hair after even after chemical treatment.

Massage with oil is also believed to increase blood circulation in the scalp, ensuring hair gets all the vital nourishment. Using coconut based hair oils also help in hair growth and prevent hair fall.

The Origins of Indian Head Massage.

Originating in the East more than one thousand years ago, Indian head massage was originally developed as a grooming technique by women who used it to strengthen and improve the fullness of the hair. This was achieved by stimulating the pressure points on the scalp. The technique, in many senses, became part of everyday life and was practiced on young and old alike. It became a tradition that was handed down through the generations.

It is usually performed with soothing oils to help maximise the benefits and to aid the reduction of stress, most commonly used are:

1. **Almond Oil** - whose beneficial properties include reducing aches, pains and stiffness, and generally promoting healthy hair.
2. **Coconut Oil** - this is good for moisturising the skin and encouraging hair growth. It also balances the body. It also helps in reducing scars.
3. **Mustard Oil** - like almond oil it is useful for relieving aches, pains and stiffness. It can be used to reduce swelling and is also good for purifying the blood by opening the pores.
4. **Olive Oil** - has very similar properties to mustard oil but without the pungent smell.
5. **Sesame Oil** - It can be used to relieve aches, pains and stiffness but is also said to benefit hair growth and reduce greying while promoting a natural shine.

<http://www.mystic-mouse.co.uk>





Our concern on the composition details of various Hair Oils findings

Code	Brands	Specific claims	Mineral oil & Veg. oils %		What is missing	Our concerns	
			Claimed %	Resulted* values %			
A	Bajaj Almond Drops	Almond Drops Non-Sticky with Vit. E	not mentioned	76.25	Ingredient % value of all the oils	Contains only few almond drops < 2%!	
B	Clear	Antidandruff Effectively removes dandruff	LLP oil= 94.4 other oil Iso propyl Myristate	90.9	Nil	Contains more than 94% of LLP oil v. high quantity	
C	Dabur Amla	Amla Hair Oil	Veg. oil including amla extract = 58 Min. oil = 40	Myristolic acid 41.12 Min. oil= 36.42	Qty. of Amla oil	How much Amla oil < 2%?	
D	Dabur Sarson Amla	Sarson Amla Mix Oil	Min. oil = 58. Mustard oil include amla extract = 40	65.2	How much Amla oil %?	Need to mention Amla oil	
E	Hair & Care	Less up to 50% Sticky	Mineral oil 63% Veg. oil 26	59.32 49.66	Neem Tulsi Extract	How much herbal extracts?	
F	Himalaya Herbals	Revitalizing Hair Oils 100% herbal activities	Not provided	Mineral = 84.71 Lenoleic acid =24.81	Herbal extracts given Mineral oil present	How it's a herbal oil as a mineral oil in majority?	
G	Himani Navratna Oil Ayurvedic	Various veg. xtracts	100 Ayurvedic Thanda oil	43.16	What is the qty of base oils?	How it is 100% Ayurvedic?	
H	Keo Karpin	Vit. E, olive oil	Mineral 65 Arachisoil 32.6%	72.2	Nil	Nil	
I	Parachute Jasmine	Non-sticky coconut hair oil	Mineral oil 79.7 Coconut oil 20	83.9	How can claim coconut oil if mineral oil qty. much high?	How much jasmine?	
J	Nihar Shanti Amla	Amla seed oil & almond oil	Mineral= 64 Veg. oil= 35	74.6	Qty. Amla oil	How much Amla & Almond oil qty. ?	
K	Cantharidine	Nil	Not Provided	81.5	Qty. of Cantharidine	How much Cantharidine oil ?	

LLP (Light Liquid Paraffin) is known as white/mineral oil.

*Resulted unsaponifiable matter is referred as mineral oils.

Composition % of mineral oil as well as veg. oil shall be declared on the packaging of hair oils as per IS: 7123



Comparative Test Performance Score Of Hair Oils

Brand Parameter	Wt.-%	Dabur Amla	Hair & Care	Keo Karpin	Parachute Jasmin	Dabur Sarsion Amla	Himalaya Herbals	Himani Navratna	Shanti Amla	Clear	Bajaj Almond Drops	Cantharidine
Pack Size, ml		300	200	500	200	200	200	200	200	150	200	400
MRP, ₹		95	70	140	64	42	125	85	46	65	85	135
Unit Price per 100 ml, ₹		31.66	35	28	32	21	62.5	42.5	23	43.33	42.5	33.75
Physico-chemical Tests 48%												
Unsataponifiable Matter	14	13.88	12.16	11.19	10.31	11.72	10.25	13.38	11.01	9.78	10.88	10.49
Fatty Acid Profile	4	4	4	1	4	1	4	1	4	1	1	1
Peroxide Value	8	6.95	7.43	7.99	7.19	7.27	6.31	6.79	5.2	7.83	6.31	7.83
Acid Value	8	7.68	7.99	7.66	7.68	7.68	7.99	7.06	7.37	7.68	8	7.67
Viscosity	7	6.88	4.51	5.46	4.49	6.31	5.99	6.99	5.26	4.59	5.58	4.94
Specific Gravity	4	3.8	3.2	3.2	3.6	3.2	3.8	2.8	3.2	4	3.4	3.6
Net Quantity	3	3	3	3	3	3	3	3	3	3	3	3
Heavy Metals (Pb & As) 6%	6	6	6	6	6	6	6	6	6	6	6	6
Microbiological Tests 6% (Total Plate Count & Yeast & Mould Count)	6	6	6	6	6	6	6	6	6	6	6	6
Sensory Tests 25% (Colour, Appearance, Odour, Flavour & Body)	25	18.42	18.7	19.82	19.32	17.75	18.4	19.25	18.8	17.62	18.4	16.62
General Parameters 15%												
Packing	3	3	2.25	3	2.25	3	3	2.25	2.25	2.25	2.5	3
Marking	7	7	7	7	7	7	5	5	7	7	5	5
Visual Observation	5	5	5	5	5	5	5	5	5	5	5	5
Overall Score	100	91.61	87.24	86.32	85.84	84.93	84.74	84.52	84.09	81.75	81.07	80.15

Rating: >90 – Excellent *****, 71-90- Very Good ****, 51-70- Good ***, 31-50- Average **, upto 30 – Poor *