

Know Your Oil

– A Practical Guide to Identifying and Preventing Adulteration

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Introduction: Why This Guide Matters

Edible oils are vital to our health — they provide essential nutrients, enable vitamin absorption, and supply energy. However, adulterated oils compromise quality, endanger lives, and betray consumer trust.

Why Adulteration Happens:

- To cut production costs and maximize profit.
- Indian consumers often focus on lower prices, unintentionally encouraging adulteration.

The Health Risks:

- Liver damage, heart disease, weakened immunity, and cancer risks. Example: 1998 Delhi mustard oil tragedy, adulteration with argemone oil caused over 60 deaths and mass illness.

Government regulations and food safety standards

To safeguard public health, India has strict food safety laws:

- Food Safety and Standards Act, 2006: Sets rules for food production, labeling, testing, and safety to protect consumers.
- Mustard Oil Blending Ban (2022): Prohibits blending mustard oil with other oils to ensure purity and protect against fatal adulterants like argemone oil.

Violations lead to:

- Fines.
- License cancellation.
- Confiscation of adulterated products.



3. Common Adulterants in Edible Oils

Typical adulterants include:

- Mustard oil → adulterated with argemone oil.
- Sunflower/Soybean oil → diluted with mineral oil.
- Coconut oil → mixed with vanaspati (hydrogenated fat).
- Olive oil → diluted with cheaper palm oil.

Impact: Severe health problems, loss of trust in brands, and economic losses for honest producers.



4. How and Where Adulteration Happens

- At manufacturing: Cheaper substitutes are mixed during production.
- At distribution/storage: Oils are diluted while transporting or storing to generate extra profits.



5. Simple Home Tests to Detect Adulterated Oils (DIY-Friendly)

Here are safe, easy-to-do methods using common items:

Oil Type	Possible Adulteration	DIY Test at Home	What to Look For
Mustard Oil	Argemone oil	Heat a small amount of oil in a spoon. If foam forms rapidly with a pungent smell, it might indicate adulteration.	Excessive foaming, sharp, unnatural odor.
Coconut Oil	Vanaspati or other oils	Refrigerate a small sample of oil for 30–40 minutes.	Pure coconut oil solidifies uniformly. If not, it could be adulterated.
Mustard Oil	Palm Oil dilution	Smell and Taste Test: Pure mustard oil has a strong, sharp pungency.	Mild smell or tasteless oil may indicate adulteration.
Any Cooking Oil	Mineral Oil	Drop oil on a white blotting paper or tissue.	If the oil spreads evenly without leaving an oily patch, mineral oil adulteration is suspected.

6. Scientific Detection Kits (For Schools, NGOs, and Enthusiasts)

CSIR and FSSAI detection kits offer fast, low-cost testing for educational workshops or advanced checking.

How it works:

- Add oil to a test paper or liquid reagent.
- Observe color changes indicating the presence of adulterants.

Available at:

- Online platforms like Amazon, Flipkart.
- Government labs via FSSAI-approved sources.

7. Being a Smart Consumer: Know Your Rights

How to spot pure oils:

- Check labels thoroughly.
- Always look for the 14-digit FSSAI license number.
- Be suspicious of oils that are too cheap or look poorly packed.
- Verify license authenticity here: foodlicensing.fssai.gov.in

Report suspected adulteration:

- FSSAI Food Safety Connect App
- Toll-Free Helpline: 1800-11-2100
- WhatsApp Helpline: +91 98688 11000

Under the Consumer Protection Act, 2019, you have:

- The right to safe food.
- The right to information.
- The right to complaint and redressal.





8. Spread the Awareness

- Conduct school/college workshops.
- Demonstrate simple DIY oil tests live.
- Print flyers/posters with QR codes linking to trusted resources.
- Encourage local shops to stock only FSSAI and AGMARK-certified oils.

9. Busting Myths About Edible Oils

- Refined oils are NOT automatically adulterated — check certifications!
- Expensive oils aren't always pure — brand reputation + testing matters.
- Adulteration can't be fully eliminated, but informed consumers can drastically reduce it.

10. Join the "Know Your Oil" Movement

Take small steps that create a big impact:

- Pledge to buy and advocate for pure edible oils.
- Spread awareness through social media hashtags: #KnowYourOil and #SayNoToAdulteration.
- Volunteer with NGOs promoting food safety.

11. Sources and References

- FSSAI – www.fssai.gov.in
- CSIR Rapid Adulteration Test Kit Guides
- WHO Reports on Food Adulteration
- National Institute of Nutrition (ICMR)
- Consumer Protection Act, 2019
- News Reports: The Hindu on Argemone Oil Scandal