

SCRATCHED COATING OF COOKING UTENSILS

You have many scratched cook wares in your kitchen? Do you think this is harmful to people's health? Or its fine? Let's have a look. We have prepared this bulletin to educate users about the risks associated with scratched coatings on cooking utensils, particularly non-stick cookware, and provide tips for safe usage and maintenance.

1. Why Scratches on Cookware Matter?

Cooking utensils, especially non-stick pans and pots, often have protective coatings (e.g., Teflon or ceramic) designed to:

- Prevent food from sticking.
- Require less oil for cooking.
- Facilitate easy cleaning.

However, when these coatings are scratched or damaged, they can pose health, safety, and functional risks.

2. Potential Hazards of Scratched Coatings

2.1 Health Risks

- **Toxic Chemical Exposure:** Scratches on Teflon or PTFE-coated cookware can release harmful chemicals, such as perfluorooctanoic acid (PFOA) or other fluoropolymers, at high temperatures. Also, scratched cookware can release millions of microplastic particles into food. These particles may disrupt hormones and increase cancer risk

- **Note:** PFOA are very stable chemicals and don't interact with other chemicals, so they can be helpful in making products that resist oils, stains, and heat. They have the potential to be a health concern because they don't break down easily and can stay in the environment and in the human body for long time.

Source: (<https://www.cancer.org/cancer/risk-prevention/chemicals/teflon-and-perfluorooctanoic-acid-pfoa.html>)

- **Metal Leaching:**

In the absence of the coating, the exposed metal (e.g., aluminium) can leach into food, potentially causing long-term health issues.

Source: (<https://www.cdc.gov/tsp/phs/phs.aspx?phsid=1076&toxid=34>)

2.2 Food Safety Issues

- **Contamination:**

Flakes of the coating may mix with food, leading to ingestion of harmful materials.



2.3 Performance Degradation

- **Loss of Non-Stick Properties:** Cooking becomes less efficient, requiring more oil and effort to clean.
- **Shortened Lifespan:** Damaged utensils wear out faster, increasing replacement costs.

3. Common Causes of Scratches

- Using metal utensils like spoons, forks, or knives.
- Scrubbing with abrasive sponges or steel wool.
- Overheating cookware, which can weaken the coating.
- Stacking cookware without protective layers.



4. Prevention Tips

- **Use Silicone Utensils (Spoons, spatula etc) if possible:**

Avoid metal tools to prevent scratching.

- **Gentle Cleaning:**

Wash cookware with a soft sponge and mild detergent. Avoid abrasive or hard materials.

- **Avoid High Heat:**

Use moderate heat settings to preserve the coating's integrity.

- **Proper Storage:**

Use separators or soft cloths between stacked pots and pans to prevent friction damage.

- **Inspect Regularly:**

Check for signs of wear and replace heavily scratched cookware.

5. Signs its time to replace Cookware

- Visible scratches exposing base metal.
- Persistent food sticking despite proper care.
- Development of foul smell during cooking.

