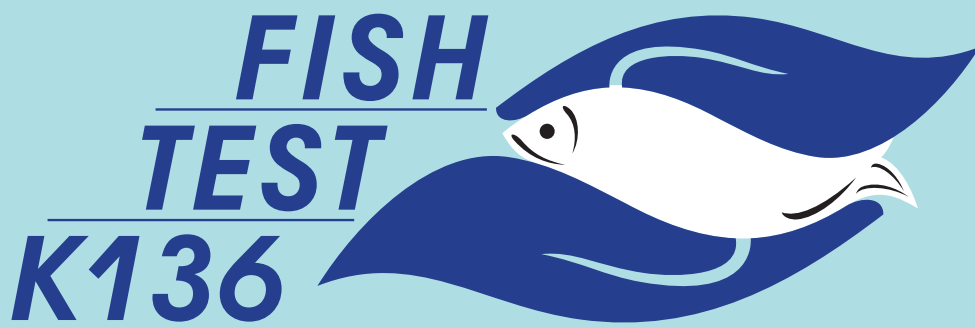


HiMedia's HiRapid Ammonia Test Kit (K136)

Fish may be adulterated by Ammonia due to
faulty trade practices.
Detect it fast with HiMedia Kit



ICAR - CIFT
Cochin
Technology

**For rapid detection of
Toxic Ammonia in fish**



2 minute test can tell the difference between Toxic and Safe food

Ammonia Facts

Natural occurrence of ammonia

Ammonia is a chemical found in trace quantities in nature, being produced from nitrogenous animal and vegetable matter. Ammonia occurs naturally in the body, and is secreted by the kidneys to neutralize excess acid. Ammonia and ammonium salts are also found in small quantities in rainwater, whereas ammonium chloride (sal ammoniac), and ammonium sulfate are found in volcanic districts; ammonium salts are found distributed through fertile soil and in seawater.

Toxicity and human health

Ammonia is a corrosive substance and the main toxic effects are restricted to the sites of direct contact with ammonia i.e., skin, eyes, respiratory tract, mouth and digestive tract. Causes corrosive damage to mouth, throat and stomach.

Metabolism of ammonia

Ammonia-NH₃ is a toxic weak basic compound that needs to be detoxified and eliminated from the body. Ammonia derives from the metabolism of amino acids and especially that of gluconeogenesis transversion of amino acid into glucose.



Ammonia Adulterations

HiMedia have launched ICAR CIFT approved **Fish Adulteration Test Kits**.

The HiRapid Ammonia Test Kit (for Fish), K136 is recommended to detect residues of ammonia carried by the frozen products such as fish, seafood etc. that are transported in ice. It is a rapid test strip kit that is simple and user friendly.

Background

There are reports in Indian market of the fish being adulterated with ammonia and formaldehyde for preservation which when consumed is very harmful to human health and leads to health hazard.

Sea food is a promising food commodity with many beneficial health effects. Since fresh fish is highly perishable in nature, there is an emerging risk of economically motivated adulteration to enhance its shelf life which adversely affects consumer health. According to Indian and international regulations, they should be transported only by ice. Hence they fall prey to adulterations.

Use of substance other than ice to extend the keeping quality is fraudulent practice. Apart from adding adulterants, adding ammonia during manufacturing of ice to slow down the melting of ice causes health problems to consumers as well as workers in place.

Even though, ammonia is generated in very low levels in humans through normal metabolic activities, ingestion in large amount through food can cause minor to serious health problems. Ammonia readily dissolves in water and forms alkaline ammonium hydroxide. Ingestion of this can result in corrosive damage to mouth, throat and stomach.

The surreptitious use of undesirable substances in fish and fish products can only be avoided by ensuring proper use of cold chain during processing, storage, transportation and display for sale.

Ammonia adulterations can be immediately sensed as fish will carry typical pungent ammonical smell.

Chemical detection of Ammonia can be done using HiMedia's HiRapid Ammonia Test Kit (K136).



How to Use...

Ammonia detection kit



1

Take a paper strip from Reagent bottle **A-1** and swab on the fish* 3 - 4 times in different portions



2

Add one drop of Reagent **A-2** solution on to the strip



3

Wait 2 - 3 minutes for colour** change



4

Compare the developed colour with the standard colour chart provided on the box

* If the fish is frozen, thaw the fish before test
** Colour developed after 3 minutes is not valid





Advantages

- It is nondestructive, simple and economical
- Saves time and fast interpretation
- Does not require huge quantity of toxic chemicals

Features

- Can be performed by consumers and general public
- Simple, reliable and rapid
- Detects the contaminants within few minutes
- Visual Interpretation by colour change
- Visual –Test Kit for detection of ammonia on skin and dermal layers of fish, shell fish and other seafoods

Protocol for using Test Kit

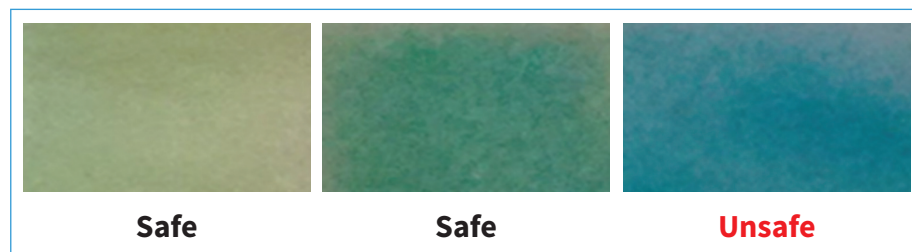
Kit contains Reagent Bottle, Test strips and Colour Comparator chart.
Each kit is sufficient for performing 25 tests.

Three Easy steps

- Step 1: Take out the strip from Reagent bottle **A-1** and rub on fish surface/cut surface to wet the paper strip.
- Step 2: Add one drop of Reagent **A-2** on swabbed paper strip.
- Step 3: Wait for 2-3 minutes for the color change.

Colour Development	Results	Interpretation
Yellow / Green colour	Fish free from Ammonia	Fish safe for consumption
Blue colour (Ocean Blue / Sky blue colour)	Ammonia present	Fish unsafe for consumption

**Note : If the fish is frozen, thaw the fish before test.
Colour developed after 3 minutes is not valid.**





HiRapid is a Trade Mark owned by HiMedia



For Life is Precious

HiMedia Laboratories Pvt. Ltd.

www.himedialabs.com

- CORPORATE OFFICE -

A-516, Swastik Disha Business Park, Via Vadhani Indl Est, LBS Marg,
Mumbai - 400 086, India.

Tel : +91-22-6147 1919 / 2500 3747 | Fax : +91-22-6147 1920 / 2500 5764

Email : info@himedialabs.com



Literature Code : TL574_01/Ammonia Test (Fish)/07.18