

# beer defects

Collected from various sources; Talorc

- **Chlorophenol** – adhesive bandages. This aroma also may remind one of disinfectant or hospital aromas. It's the artificial quality that really stands out in this defect, which usually is caused by a problem with sanitizers or yeast.
- **Phenolic** – Plastic flavour, an artificial aroma that can take the form of something medicinal, mouthwash or plastic, they're cause is often a problem with the water, yeast or over sparging.
- **Diacetyl** - Butter or butterscotch, Think of that artificial butter aroma and flavour from movie theatre popcorn, at low levels, this can be an enjoyable flavour component. This problem is from fermentation the yeast not given a warm rest to metabolize. Sometimes caused by bacterial infection, even dirty bar lines.
- **Oxidized** - Cardboard flavour, or wet paper, sometimes, it may seem leathery. It can be a sign of boiling too long, or hot side aeration or bottling O<sub>2</sub> uptake but more often it's simply stale beer that's too old or been stored improperly.
- **Isovaleric acid** - Cheesy bad cheese or stinky feet, it could be from poor storage of hops, or it could be a bacterial infection.
- **Dimethylsulfide** [ DMS ] - Cooked corn or cabbage It also may have an asparagus or vegetal smell. In dark beer, the aroma may remind one of tomato soup. Its cause is commonly a grain infection or brew-house problem, long warm rest, weak boil, slow cooling or steam and DMS not escaping kettle, which usually occurs in the boil.
- **Acetaldehyde** - Green apple, a sign that the beer was released too soon, or that there was a yeast metabolic problem struggling on ferment often by a low pitching rate. Like its aroma, the beer is a little green. While usually evidence of a defect, it's not as unpleasant a problem as many others.
- **Methyl mercaptan or isopentyl mercaptan** – Light struck, smells like a skunk; it happens almost instantaneously when it encounters light, especially UV rays. Fluorescent lights and bright sunlight are common culprits. Since both clear and green glass offer much less protection, many popular brands of beer are very susceptible to this problem.
- **Metallic** - tastes lacquer-like or metallic, not from cans [which are coated] but caused primarily by iron, copper or other metals in the water.
- **Sulfitic**, H<sub>2</sub>S – Rotten eggs can be a sign of a serious problem of contamination, especially when the smell is overwhelming. By contrast, it can be desirable when it's just a very faint or subtle whiff, more like a burned match. Many ales that were originally brewed in Burton-on-Trent in the United Kingdom famously had this character. If it's overpowering, it most likely signals a yeast problem, or sometimes it's a sign that a beer is too green.
- **Alcoholic**, When an alcohol taste detracts from a beer's flavour it can usually be traced to one of two causes. The first problem is often too high a fermentation temperature. At

temperatures above 27°C, yeast can produce too much of the higher weight fusel alcohols which have lower taste thresholds than ethanol.

- **Astringency** – often the result of steeping grains too long or when the pH of the mash exceeds the range of 5.2 – 5.6. Over-sparging the mash or using water that is too hot are common causes for exceeding the mash pH range. Bacterial infections can also cause astringency, i.e. vinegar tones from acetic acid bacteria.
- **Cidery flavours** – often the result of adding too much cane or corn sugar to a recipe. One component of a cidery flavour is acetaldehyde, it is a common fermentation by-product and different yeasts will produce different levels of it depending on the recipe and temperature. Cidery flavours are encouraged by warmer than normal temperatures and can be decreased by lagering.
- **Soapy** – Caused by improper rinsing of glassware or by the breakdown of trub on too long a stay in primary fermenter.
- **Marmite** – yeast autolysis leaving beer on the yeast too long during conditioning.
- **Infection** – Gushing, foaming, sourness, diacetyl, mouldy, sour...