TARTARIC ACID (H2C4H4O6) is a colorless or translucent chemical used in photography and for silvering mirrors and coloring metals. It is occasionally used in medicine as a laxative. Some batches of beer are so cloudy and unappetizing no one would dare drink them. So the brewer doses them with tartaric acid to take away the cloudiness and present an appetizing appearance.

PAPAIN (papayotin) is a chemical additive akin to meat tenderizer which prevents beer from clotting. In medicine it is used as a solvent for warts and other external skin growths, but its internal use carries with it the warning that certain individuals may exhibit severe gastrointestinal symptoms after ingestion. Yet this chemical substance is widely used in brewing.

MAGNESIUM SULFATE (MgSO4.7H20), better known as a cathartic or purgative, Epsom Salts, is the active ingredient in most of the advertised laxative waters. Breweries rely on Epsom Salts to alter water used in brewing, ignoring medical warnings that it can cause respiratory failure and kidney impairment.

DEXTRIN is a white amorphous powder used by brewers to insure a better head of frothy bubbles on the surface of the beer. Dextrin is also used to manufacture matches, fireworks and explosives.

There is no regulation concerning the chemical content of beer. If a brewer wished, he could add many other dangerous chemicals to his brew and not break the law. You have no way of knowing what you are taking into your body when you drink beer.

"WHAT'S WRONG WITH BEER?" Maybe the question should read: "WHAT'S RIGHT WITH BEER?"

"Beer drinking is the open door through which many young people enter to be forever shackled by alcohol."

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## What's Wrong With ... Beer

by Fred W. Dies



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email@alcoholicsvictorious.org http://alcoholicsvictorious.org Beer Always Contains the Narcotic Alcohol

Beverage alcohol, technically referred to as ethyl alcohol (C2H5OH), is the main intoxicating agent in beer.

Medical literature classifies beverage alcohol as "a habit-forming and addiction-producing narcotic," and the World Health Organization lists it in the same category with codeine, morphine, cocaine, opium, heroin and all other addicting narcotics.

Besides being a narcotic drug, medical authorities in the fields of pharmacology and toxicology also classify beverage alcohol as an anesthetic, a hypnotic, an analgesic, a poison, a depressant, and an irritant.

Alcohol cannot be rightfully called a food. It does supply calories of energy, but these are empty and toxic calories. Alcohol contains no vitamins, proteins or minerals, and its dominant properties place it among the dangerous drugs.

The average 12-ounce can of beer contains one-half ounce of beverage alcohol. This is the same amount of alcohol one would obtain from most other alcoholic drinks.

One 12 oz. can of bottle of beer ... Equals in alcohol content ... a wine glass filled with natural wine, or an average cocktail, or an average highball, or a jigger of 67-proof whiskey, or an average martini, or a shot of 100-proof whiskey.

A bottle of beer contains approximately 1/2 oz. of ethyl alcohol. The average glass of wine contains approximately 1/2 oz. of ethyl alcohol. A shot of whiskey contains approximately 1/2 oz. of ethyl alcohol.

Beer Always Contains the Narcotic Lupulin

For at least 1200 years hops have been used to impart a bitter flavor to beer and malt liquor. And for a good many of these years we have used the word "hop" as a slang term for "dope" or a narcotic drug such as opium. We have referred to a person intoxicated with a narcotic as "hopped up." But do you realize that the hop plant and the hemp plant (from which the drug, marijuana, is produced) are closely related members of the same botanical family?

The active principle in hops is a fine, yellow resinous powder called lupulin which is always classified as a narcotic because it will dull the senses in moderate doses and cause stupor or coma in larger amounts. From lupulin come two lupulic acids - humulone and lupulone. One of these, humulone, has the following chemical formula: C21H30O5. Cannabinol, the active principle of marijuana, has the chemical formula of C21H30O2. You can't get much closer than that for chemical championship. Sir William Osler has stated: "It seems to be a fact recognized by the most careful

students that alcohol with a lupulin content is a peculiarly vicious member of the notoriously vicious alcohol family."

From lupulin also comes hop oil used to give flavor to the beer. Within the hop oil is a chemical substance called geranio. By looking at its formula (C10H17OH) you can tell it is a member of the alcohol family. So, from the hops there is imparted to beer a small, but powerful trace of another lethal member of the alcohol clan. Medical investigation has proved that narcotics are released from the hops when they are used in brewing.

Law enforcement authorities remind us that individuals drunk on beer are harder to handle and more boisterous than people intoxicated to the very same degree with any other alcoholic beverage. Lupulin and lupulic acids are the culprits.

Beer Usually Contains One or More Chemical Additives

GUM ARABIC (acacia) is in common use by many breweries as a stabilizer to prevent any alteration on the beverage before it is sold. It also helps the foaming quality of the beer. Yet medical literature states that "allergic reactions, liver and kidney damage may follow its use."

SODIUM HYDROSULFITE (Na2S2O4) is a white or grayish white salt of hydrosulfurous acid which is used in industry as a reducing and bleaching agent. But the brewer adds this potentially dangerous chemical to his beer to prevent the taste from becoming inferior and stop the deterioration of its flavor to insure a perfect brew.

COBALT (Co) has been used by at least two breweries to prevent overfoaming in three different brands of beer. Federal officials in the U.S. and Canada, a well as investigating physicians, have strongly implicated cobalt as the cause of 37 deaths and many other serious cases of beer drinkers' heart disease. In every case, the heart muscles of the beer drinker slowly degenerated and finally stopped working.

TANNIC ACID (tannin) is a yellowish to light brown substance used in tanning, dyeing and the manufacturing of ink. Taken internally it can be blamed for arresting secretion, causing contraction of the tissues and arresting the flow of blood within the vessels. Tannic acid has been known to cause gastric irritation and liver damage. Disregarding these dangers, many breweries use it to eliminate any sediment or cloudiness from their brands of beer.

AMMONIUM PHOSPHATE has many uses in industry - fireproofing fabrics, fertilizer, infusing lamp wicks, preventing after-glow in matches, and as flux for soldering tin, copper and brass. Beer companies use it to chemically improve or correct American water so that it will correspond with the water used in European brewing.

POTASSIUM METABISULFITE is used by brewers as an antioxidant to inhibit the chemical reactions taking place in the beer and prevent deterioration of the flavor. In industry this chemical is used for bleaching straw and as a source of sulfurous acid.