Uses & Benefits of Isopropyl Alcohol

Overview

Isopropyl alcohol, more commonly known as rubbing alcohol, has a number of applications in the health industry and is a familiar staple in most home medicine cabinets. According to Medical Dictionary, the name "rubbing alcohol" stems from its use in the past as a medicinal rubdown, although this is not as common of an application now.

Common Uses for Rubbing Alcohol

Antiseptic

Isopropyl alcohol is often employed as an antiseptic, and you have likely had a doctor use it to swab your skin before injections to kill surface bacteria. It is used to clean minor cuts and abrasions, and to kill any bacteria that might be in the area in order to prevent bacterial growth. It is also approved for use by the Food and Drug Administration, or FDA, as a surgical scrub and clinical hand sanitizer.

Astringent

Astringents are substances that can shrink or tighten your body tissues, like the pores in your skin, when they are applied topically. Isopropyl alcohol acts as an astringent and is often used in skin toners and tightening formulas along with other astringents like witch hazel. It helps to give your skin a smoother look and make pores less visible. Astringents also help to stop bleeding in minor cuts and scrapes by tightening up the capillaries that are losing blood.

Liniment for Muscle Aches

A liniment is a liquid that can be rubbed over the surface of aching muscles or painful joints to help reduce pain and swelling. According to the Columbia Online Encyclopedia, alcohol is an effective liniment because it acts as a minor irritant to the skin increasing circulation and blood flow to the area. This increased circulation helps to ease pain and inflammation.

Surface Disinfectant

Isopropyl alcohol is one of the active ingredients in many of the products used to disinfect hospital surfaces. It is on the Environmental Protection Agency's "List of Antimicrobial Products Effective Against Mycobacterium Tuberculosis, Human HIV-1 and Hepatitis B Virus." Generally the isopropyl alcohol in these products is combined with another chemical that helps it to stay on the surface longer and not evaporate as quickly. It is a helpful addition to any surface cleaner at home, and can kill bacteria, spores and viruses on those surfaces as well.

Cleaning Agent

One of the common household uses of rubbing alcohol is as a cleaning agent. Many toilet bowl and window cleaners, for instance, contain isopropyl alcohol. Unlike water, rubbing alcohol can dissolve sticky, gummy residues, making it ideal for removing sap or chewing gum from hands and surfaces. ReadersDigest.com says that rubbing alcohol removes hairspray residue from mirrors and windows. DVDs and CDs that have acquired fingerprints benefit from being rubbed down with some isopropyl alcohol on a soft cloth---the alcohol removes the fingerprints without damaging the delicate plastic of the disc.
Prevent Swimmers' Ear

Habitual swimmers know that one of the most irritating and potential painful side effects of a love of water is its tendency to get stuck deep in the ear canal. At best, this leads to an annoying several hours of trying to remove the residual water, during which time it can be difficult to hear. At worst, moisture deep in the ear creates an ideal environment for infectious pathogens, leading to swimmers’ ear, which can be quite painful.

Rubbing alcohol can actually help swimmers prevent infection. According to the Material Safety Data Sheets for isopropyl alcohol, the chemical has a vapor pressure of 44 mmHg at room temperature, compared to water’s vapor pressure of 23.8 mmHg. This means that it’s much easier for isopropyl alcohol to evaporate than it is for water. As a result, while a puddle of water---whether on the counter top or in the ear---sticks around for a while, a puddle of rubbing alcohol quickly evaporates. When rubbing alcohol mixes with water, the resulting mixture has a vapor pressure between those of the original compounds. This means that pouring a bit of rubbing alcohol in the ear to mix with the water that's left there after swimming produces a mixture that evaporates much faster than water would on its own, drying the ear and preventing infection.

Poison Ivy

If you know you have been exposed to poison ivy or another irritating plant, grab a bottle of rubbing alcohol. Saturate a clean cloth or paper towel with rubbing alcohol, and gently wipe the affected area. When the area is completely dry, wash it with soap and warm water. The don't re-expose yourself to poison ivy, because rubbing alcohol removes the natural protective layer on your skin, leaving you more vulnerable to dermal irritants.

About Rubbing Alcohol on Acne Skin

Rubbing alcohol is commonly used as a disinfectant to soothe skin and clean off bacteria and other pollutants. It is also considered to be helpful in healing acne by virtue of its cleansing properties though this has not been proven through any medical research. Most people use rubbing alcohol as an alternative for expensive anti-acne astringents or toners, where rubbing alcohol is the base agent combined with other acne healing ingredients, such as clove or tea tree oil. Alternative health forums and websites caution against using rubbing alcohol on acne-prone skin for a prolonged period of time since it may cause skin irritation resulting in painful skin peeling.

Benefits

Rubbing alcohol is used for a variety of problems as a popular home remedy. As suggested by alternative health care expert Ruthuja Jathar, rubbing alcohol has a host of uses, such as home cleaning, anti-fungal and anti-bacterial properties, healing muscle sores and even burns. In addition, rubbing alcohol is also useful in getting rid of fruit flies. According to Health Tree, rubbing alcohol helps dry the skin and cleans off acne-causing bacteria. It is also helpful when you notice the first signs of a pimple since cleaning the area three times a day with rubbing alcohol will considerably reduce blackheads and pimples.

Problems & Cautions

The Material Safety Data Sheet has ranked rubbing alcohol quite high on its list of skin irritants. Ingestion of rubbing alcohol can cause liver poisoning, resulting in nausea and dizziness. Some schools of thought are strictly against the use of rubbing alcohol for acne while others consider it OK to use in a limited manner. However, no one is really certain about the amount of rubbing alcohol that can be considered healthy for the skin.
Effects

People with sensitive skin should avoid using rubbing alcohol because it can cause dryness and peeling. This dryness can cause the skin to produce more oil, worsening the acne problem. It is also known to affect eyesight.

Considerations

Typically the ethanol content in rubbing alcohol varies between 70 percent and 90 percent, depending on the manufacturer. Health Tree recommends cleaning your face with rubbing alcohol no more than once a day while it can be used locally to heal a pimple three times a day. However, if you see your skin condition worsening, then you must switch to a proven anti-acne cure -- medical or homemade.

Information Link:


References:

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- Ask a Scientist: Alcohol Differences