
Subject: Liquids on circuit boards?

Posted by [cnc95fan](#) on Thu, 18 Sep 2008 15:34:40 GMT

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Does anyone know what liquids can be used on a live circuit board? i.e, motherboard, ram, w/e, I know for a fact that cooking oil can, but I need to know various ones, if anyone is up for sharing. Thanks.

Subject: Re: Liquids on circuit boards?

Posted by [jnz](#) on Thu, 18 Sep 2008 16:12:45 GMT

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Anything that doesn't conduct electricity or act as an electrolyte.

Subject: Re: Liquids on circuit boards?

Posted by [Nukelt15](#) on Thu, 18 Sep 2008 16:22:32 GMT

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nitroglycerin.

Subject: Re: Liquids on circuit boards?

Posted by [luv2pb](#) on Thu, 18 Sep 2008 18:07:53 GMT

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RoShamBo wrote on Thu, 18 September 2008 12:12Anything that doesn't conduct electricity or act as an electrolyte.

Just about everything is conductive to some point. You need to know how much voltage is going through said board first. Once you know that then it is easy to figure out what can and can not be used. Google liquid cooled computers, people have used some crazy shit for it.

Subject: Re: Liquids on circuit boards?

Posted by [DaveGMM](#) on Thu, 18 Sep 2008 21:37:34 GMT

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Trouble isn't what liquid, many can be used - just ask google like luv said. The problem is keeping it pure - insert a few ions of various shapes and sizes into the mix and watch as your circuit board fries...

Subject: Re: Liquids on circuit boards?

Posted by [DaN#GW](#) on Thu, 18 Sep 2008 21:45:02 GMT

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<http://uk.youtube.com/watch?v=PtufuXLvOOK>

Subject: Re: Liquids on circuit boards?

Posted by [_SSnipe_](#) on Fri, 19 Sep 2008 03:52:29 GMT

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DaN#GW wrote on Thu, 18 September 2008 14:45<http://uk.youtube.com/watch?v=PtufuXLvOOK>
wow thats crazy no fucking way....

RoShamBo wrote on Thu, 18 September 2008 09:12Anything that doesn't conduct electricity or
act as an electrolyte.

so what counts as one of those water? no really tho id like to know what can damage my pc and
what cant

Subject: Re: Liquids on circuit boards?

Posted by [mrpirate](#) on Fri, 19 Sep 2008 05:35:43 GMT

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water works pretty well

Subject: Re: Liquids on circuit boards?

Posted by [_SSnipe_](#) on Fri, 19 Sep 2008 05:38:47 GMT

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mrpirate wrote on Thu, 18 September 2008 22:35water works pretty well
so wait water breaks a pc or no?

Subject: Re: Liquids on circuit boards?

Posted by [nikki6ixx](#) on Fri, 19 Sep 2008 05:46:01 GMT

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SSnipe wrote on Fri, 19 September 2008 00:38
so wait water breaks a pc or no?

Dude, you really should have thought that one over. No offense.

Subject: Re: Liquids on circuit boards?

Posted by [Mauler](#) on Fri, 19 Sep 2008 05:52:42 GMT

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SSnipe wrote on Fri, 19 September 2008 01:38mrrpirate wrote on Thu, 18 September 2008

22:35water works pretty well

so wait water breaks a pc or no?

LOL you can't use water are you crazy!! There using mineral oil which has no conductivity so its safe for most components of your computer, now if you tried that with water

Subject: Re: Liquids on circuit boards?

Posted by [_SSnipe_](#) on Fri, 19 Sep 2008 05:58:18 GMT

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lol was just seeing...ok so nothing that conducts electricity pretty much but how do you know what conducts it or not? and can someone explain what an electrolyte is on Wikipedia kinda was hard i need someone to dumb it down

Subject: Re: Liquids on circuit boards?

Posted by [jnz](#) on Fri, 19 Sep 2008 06:39:03 GMT

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Distilled water would work

Subject: Re: Liquids on circuit boards?

Posted by [Mauler](#) on Fri, 19 Sep 2008 06:39:49 GMT

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SSnipe wrote on Fri, 19 September 2008 01:58lol was just seeing...ok so nothing that conducts electricity pretty much but how do you know what conducts it or not? and can someone explain what an electrolyte is on Wikipedia kinda was hard i need someone to dumb it down

Ok in order for you to have an "Aquarium PC" you need to have a non conductive and viscous liquid (Like Mineral Oil or Specialized PC coolant For Example) to submerge your PC into, also you cannot place devices such as hard drives and or other moving mechanical components like you CD drives into the liquid. You can search other types of non conductive materials on google. As for your last question in simple terms, "the electrolyte is a material that dissolves in water to give a solution that conducts an electric current, which in turn produces free ions." so basically mix in salt with water and you have created a electrolyte/Ionic Solution that can conduct an electrical charge

Subject: Re: Liquids on circuit boards?
Posted by [Mauler](#) on Fri, 19 Sep 2008 06:45:20 GMT
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wrong link

Subject: Re: Liquids on circuit boards?
Posted by [jnz](#) on Fri, 19 Sep 2008 06:49:35 GMT
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I actually meant dielectric not electrolyte. A dielectric will cause an electrical charge to build up on most of the exposed metalwork. So it would disrupt timings and other stuff.

Subject: Re: Liquids on circuit boards?
Posted by [Mauler](#) on Fri, 19 Sep 2008 06:54:22 GMT
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Well if you look at most of these oil systems they don't have any metal frames/cases submerged only the actual circuits boards and plastic components so it shouldn't be a problem and its completely in a non conductive liquid so it wouldn't affect much of anything really

Subject: Re: Liquids on circuit boards?
Posted by [_SSnipe_](#) on Fri, 19 Sep 2008 07:07:36 GMT
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ok so no hard drives or such that move....well im still having hard time believing any electronic component can be inside anything liquid

Subject: Re: Liquids on circuit boards?
Posted by [Mauler](#) on Fri, 19 Sep 2008 07:22:51 GMT
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Quote:
Where is the hard drive and CDROM?

Answer: We didn't submerge the hard drive, but rather hid it inside the plastic molding on top of the aquarium. There is no CDROM drive -- we plug in a USB drive when needed.

Why didn't you submerge the hard drive?

Answer: There is a good amount of debate as to whether we could have submerged the hard

drive. We still think it is right that we did not. While the oil is not conductive, it is viscous. We were not confident that the hard drive was entirely water-tight (in fact, some cite that there is a hole in the hard drive casing, designed to allow pressure differences to equalize). If oil were to get into the hard drive, that would be the end of the drive -- the platters wouldn't be able to spin at full speed, and the read heads would be restricted from free motion. So, we opted to be safe and keep it out of the oil. However, SSD drives would definitely be no problem.
