

Comet Releasing Alcohol, Sugar across the Solar System, So you can get drunk in space

By [Julienne Roman](#), Med Expo | October 24, 11:05 PM



Organic compounds of alcohol and sugar have been detected on the Lovejoy comet.
(Photo : NASA)

Astronomers were able to find two organic molecules in space and it came from a comet that passes by Earth only once every 8,000 years.

Ethyl alcohol and a sugar compound, glycolaldehyde, was identified in the mass of iced water that is the comet Lovejoy, according to findings from a study published in the *Science Advances* journal.

"We found that comet Lovejoy was releasing as much alcohol as in at least 500 bottles of wine every second during its peak activity," **said** lead author Nicolas Biver of the Paris Observatory, France.

Comets are generally made of rock, iced water and dust particles, though they can also come with a variety of chemicals. While organic materials like hydrogen and oxygen have been discovered on other comets before, Lovejoy is the only one so far that has traces of alcohol and sugar in its composition.

"The presence of a major complex organic molecule in comet material is an essential step toward better understanding the conditions that prevailed at the moment when life emerged on our planet," **said** astrophysicist Dominique Bockelée-Morvan from the French National Center for Scientific Research.

She added that the presence of these organic materials in comets could help give more clues on the origins of planets and the emergence of living organisms.

There is an ongoing debate about whether or not comets could have contributed to life on Earth. Last August, scientists showed how comets colliding with a solid object could infuse the organic materials it is made of into longer chained molecules as well.

Though admittedly, this discovery on Lovejoy still does little to prove either side of the debate right.

Morvan said that the next step in proving the theory correct is to determine if the organic material that make up these comets came from a primordial cloud that could have eventually created the solar system or if it was made after the cloud was formed, from within a protoplanetary disk surrounding the young sun.

The comet Lovejoy is only visible on the Earth's night sky once every 8,000 years, its last visit being last Jan. 30, 2015. On that day, the researchers used a 30 meter radio antenna on the Institut de Radioastronomie Millimetrique in Spain, which they used to pick up spectrographic studies of chemicals on the comet.



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