



**ORBECO**

# Green Chemistry

## For a safer, cleaner life



**ORBECO**

# The Low-Carbon Industry

The strongest business opportunity of the 21st Century for environmentally and socially responsible companies

Source New York Post March 16,2008



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## Green Economy Powered by Silicon Valley:

SAN JOSE, CA

Oct 05, 2007: Mayor Chuck Reed released his Green vision and 15 years plan:

San Jose to become the world's center of innovation in clean, green technologies.

The Silicon Valley to become the Green Valley



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## Green means GREENS \$\$\$\$

Growing number of venture-capital firms expand beyond their traditional Internet, software and biotechnologies companies into the increasingly hot 'green' and 'clean-tech' sector.

Source New York Post March 16,2008



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e.g : Al Gore has become a partner in Silicon Valley's top venture capital firm Kleiner, Perkins, Caufield and Byers

In return, John Doerr, KPCB founder and early investor in Amazon, Google and Netscape has joined the advisory board of Gore's 3 years old green investment firm, Generation.

Within a year, \$200 million in KPBC capital will target global warming, in addition to the \$270 million currently allocated to environmental issues.

## Certifications and accreditations

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- Ø Orbeco, Inc. is the first and only chemical company to be certified as a **Green Business by the City and County of San Francisco.**

This certification, after a thorough examination confirms the safety of its products and environmental practices. The San Francisco Green Business Program is a voluntary program that encourages businesses to take proactive actions that are good for their bottom line and the environment.

It is a partnership of City Agencies that promote, recognize and provide hands-on support to local businesses that operate in an environmentally responsible way.



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- Who is Orbeco Inc.?
- Manufacturer of certified safe and efficient biocides, cleansers and sanitary products for household, industrial and medical use.
- Product line name: Evolut-ION
- Philosophy:  
to manufacture innovative and patented products that are at least as efficient as the best traditional chemicals but:
  - are environmentally responsible and do not affect negatively the indoor environment,
  - are safe for humans and animals





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## Application fields

- Health regarding disinfection of surgery rooms, patients' rooms, surgery instruments...
- Hospitality Industry with all cleaning and disinfecting products
- Agriculture and food processing industry with disinfection of spaces, storage and transportation, canals, packing and of course battling bacteria
- Water treatment with disinfection of potable water, grey waters, industrial and stagnant waters
- Air and surface treatment
- Industrial applications in different activities





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## Scientific Challenges

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1. EPA (US Environment Protection Agency) considers Indoor Air Quality as the **number one** environmental health problem.
1. Microbial contamination is the **number one** threat for the humankind.

## Regulatory Challenges

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Air Resource Board: Section 94509 of California Code of Regulations: application Jan. 1, 2001 /enforced in 2005:

**“No person shall sell, supply, offer for sale, or manufacture for sale in California any consumer product, which at the time of sale or manufacture, contains volatile organic compounds in excess of the limits specified in the following Table of Standards.”**

The fine for violating air pollution regulation could be up to \$50,000 per day. Source: Air Resource Board., A department of the California Environmental Protection Agency

Several northeastern states (members of the Ozone Transport Commission) are regulating the VOC levels of many consumer products with the goal of improving air quality.

## Impact on Indoor Air Quality

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Most people spend well over **90%** of their time indoors. Indoor Air is **2 to 10 times** more hazardous than outdoor air.

Source: US Environmental Protection Agency (EPA)

World Health organization estimates that **30% of all buildings** experience IAQ problems

**50%** of illnesses are aggravated or caused by polluted indoor air

Source: American College of Allergies

## Environmental and human health impacts of chemical products

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### A market ready for a transition to “Green” chemical products

More than **75% American travelers** feel it is important that their visits have no or limited impact on the Environment. Source: Travel Industry Association

Nearly **75% of workers** would rather work for an employer with “green” offices. Source: Fast Company, November 10, 2006

Survey of 200 distributors shows that **93%** of respondents feel their company’s vision or direction in selling green products is “very good” or “excellent”. Source: Altura Solutions Communications, May 2006

State / Cities / Counties / Hotel chains - Boutiques Hotels: EPP programs

Manufacturers: efficient and price competitive “green” chemical products



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In the field of disinfection, our principal innovations are

- An exceptional efficiency practically without equal on all pathogen and undesired micro-organisms
- A quicker action
- An important effect of resiliency
- An anti-recontamination capacity
- Absence of toxicity and phyto-toxicity for the environment
- Ease of use
- Multiple actions
  
- These chemical formulations can replace all the known disinfectants in the world: Chlorine, formol, quats, hydrogen peroxide, reknown for their weak biocide efficiency and/or their secondary effects dangerous for humans and the environment.



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## Partnerships/scientific validations





# Environmental and human health impacts of cleaning products

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## 5. Recognized Certifications and accreditations



Green Seal - [www.greenseal.org](http://www.greenseal.org)



Woolsafe - [www.woolSAFE.org](http://www.woolSAFE.org)



Hospitals for a Healthy Environment  
[www.h2e-online.org](http://www.h2e-online.org)



USGBC (LEED Member) - [www.usgbc.org](http://www.usgbc.org)



Green Hotels Association - [www.greenhotels.com](http://www.greenhotels.com)



Co-Op America - [www.coopamerica.org](http://www.coopamerica.org)

## Certifications and accreditations

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**Green Seal** certifies that the product tested is safe for Humans, Animals and the Environment (based on the California Code of Regulations)

## Certifications and accreditations

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### Ø **Hospitals for a Healthy Environment, H2E,**



organizations are committed to the virtual elimination of mercury, general waste reduction, and the minimization of toxic substances used in healthcare.

H2E supports the design, construction and cooperation of healthcare facilities that significantly improve our collective impact on human and environmental health.

Orbeco Inc. has joined Hospitals for a Healthy Environment, supporting the National Movement for Environmentally Sustainable Health Care.

H2E is a voluntary partnership program sponsored by the American Hospital Association, the US EPA, Health Care without Harm and the American Nurses Association.

## Certifications and accreditations

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### Ø **USGBC, LEED Member**



The U.S. Green Building is the nation's foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work.

- \* In order to be LEED certified a building needs to reach at least 32 points. Green cleaning can receive a maximum of nine points: up to three for the purchase of green cleaning products and up to six points for green-cleaning related policies and procedures
- \* The General Services Administration (GSA) which operates as the federal government's landlord has issued a report that found the council's Leadership in Energy and Environmental Design (LEED) system to be the most credible among five systems evaluated.

## Certifications and accreditations

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- Ø **Green Hotels Association** is committed to encourage, promote and support ecological consciousness in the Hospitality industry.

For over ten years, “Green” Hotels Association is releasing a very comprehensive Guidelines and Ideas book revealing how to reduce bills as well as the hotel’s impact on the Environment. Evolut-Ion Carpet Cleaner is approved by “Green” Hotels Association.

## Certifications and accreditations

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- Ø **Co-Op America** recognizes Orbeco's commitments and accomplishments as a Green Business.

Co-op America's mission is to harness economic power—the strength of consumers, businesses and the marketplace—to create a socially just and environmentally sustainable society.

Co-op America's Business Network is the oldest, largest, and most diverse network of socially and environmentally responsible businesses in America.

The Co-op America Business Seal of Approval designates Orbeco Inc has successfully completed Co-op America's screening process.

Bio-Entrepreneurs 2008 / Orbeco Inc.



## Who is Orbeco Inc?

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