



ECOLAB®

Protecting your brand

Ecolab is proud to be a partner
of

Agenda



- ▲ Ecolab overview
- ▲ Innovation
- ▲ Safe handling chemicals
- ▲ Norovirus
- ▲ Sustainability
- ▲ Helping you achieve

sustainability goals



Overview



Ecolab — 86 years of history



1923 - Merritt J. Osborn, founded Economics Laboratory and marketed the first chemical detergent for mechanized dishwashing under the name of Soilax

One product. One associate. One market.



2010 – Ecolab is now the world's leading provider of cleaning, food safety & health protection solutions and services



10.000+ products. 26.000 associates. Global market.



Ecolab – a global hygiene partner

- ▲ Ecolab is present in **160** countries across the world
- ▲ More than **\$6** billions sales in 2009
- ▲ Over **26.000** associates – **14.000** of them are sales & service
- ▲ **750** R&D associates worldwide
- ▲ **21** Research & Development Center and Training Center
- ▲ **48** production facilities
- ▲ Ecolab holds more than **2.800** active U.S. and foreign patents
- ▲ Ecolab holds **ISO 9001**, **ISO 13485** and **ISO 140001** certifications

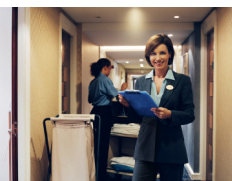


ECOLAB

Serving Diversified Markets

Protecting the health & safety of our customers & their customers

- ▲ Foodservice
- ▲ Hospitality
- ▲ Healthcare
- ▲ Food & Beverage Processing
- ▲ Retail
- ▲ Commercial Facilities
- ▲ Industrial Laundries



Building cleaning contractors
 Hospitals & clinics Cruise ships
Hotels & Resorts
 Restaurants
 Long-term care facilities Caterers



Experience 360° of Protection



The 360° of Protection® programme provides the foundation for improved customer satisfaction and business operational efficiency.

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Ecolab Service:

Ecolab™ advises and assists properties in meeting a full range of cleaning, sanitation and service needs.

- ▲ Constant High Rate of Product Innovations
- ▲ Comprehensive Employee Training
- ▲ Accurate & Safe Dispensing
- ▲ Advanced Cleaning Methods
- ▲ Environmentally Sustainable Program
- ▲ Professional Customer Sales and Service Team with more than 14.000 Associates
- ▲ Regular, on-site service and support



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The Ecolab TM

360° of Protection delivered personally – Real-time reporting & analysis

- ▲ Regular service visits
 - Needs analysis
 - Hygiene standards & cleaning practices implementation & tracking
 - Operational efficiency analysis
 - Equipment checks & servicing
 - Health & safety
- ▲ Emergency call-outs
- ▲ Dosing equipment installation & calibration
- ▲ Staff training & expert support
- ▲ Hygiene plans & training materials
- ▲ Real-time, standardized reporting
 - Sent by email
 - Multi-unit information can be consolidated into annual Executive Business Review for discussion at HQ-level



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Innovation

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Total Hygiene Solutions

Providing 360° of Protection to our customers

- ▲ Comprehensive range of cleaning solutions
- ▲ Concentrated chemical products to minimize environmental impact
- ▲ Environmentally-friendly Eco-label & SWAN-label products
- ▲ State-of-the-art dosing systems for safe, precise chemical application
- ▲ Innovative packaging to reduce waste whilst increasing safety
- ▲ Rinse-free formulas to reduce water consumption
- ▲ Color-coded labels & solutions for increased user safety
- ▲ Cleaning tools & machines



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Innovations

A full range of highly effective kitchen hygiene products



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Innovations

Solid Power® warewashing system



- ▲ Sustainable offering
 - Reduction in water and packaging shipped to a customer
 - Increased safety at the customer location
- ▲ All chemical off of the floor
- ▲ Reduced weight required to lift by the end user
- ▲ High concentrated formulation yielding greater results
- ▲ Ensures one-pass warewashing, avoiding the cost & impact of rewashing

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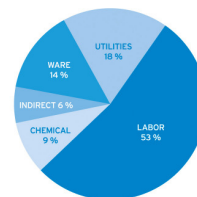
Innovations

Solid Power® warewashing system

The Best Warewashing Results at the Lowest Overall Cost

360° OF PROTECTION® DELIVERS:

- ▲ Spotless results on all dishes glasses and cutlery
- ▲ The best results at the lowest cost in use
- ▲ Employee and customer safety



EFFICIENT
 Programmable dispensing systems with accurate, variable dosage based on soil loading ensure optimum results at lowest cost in use.



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Innovations

Mechanical dishwashing solids, super concentrated ware washing products!
A comprehensive range of solid mechanical ware washing detergents



Soft Water Solid Ware Washing Detergent



Medium Hard Water Solid Ware Washing Detergent



Hard Water Solid Ware Washing Detergent



Metal Protective Solid Ware Washing Detergent



Biocidal Solid Ware Washing Detergent

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Innovations

Oasis Pro® a total system approach to sustainability

- ▲ Oasis Pro is a comprehensive range of high-quality superconcentrated chemical cleaners for professional users
- ▲ The dosing equipment safely mixes the concentrated chemical with water, which is then used to fill a spray bottle or bucket
- ▲ The Oasis Pro products come in the form of robust, 2 liter pouches which are opened only when they are inserted into the dosing equipment
- ▲ Depending on the product & ambient conditions, 2 liters of Oasis Pro can provide between 30 and 200 liters of usable cleaning solution



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Innovations

Oasis Pro® a total system approach to sustainability
A full range of highly effective kitchen hygiene products



Oasis Pro 16 –
Multipurpose Cleaner & Degreaser



Oasis Pro 20 - Cleaner & Disinfectant



Oasis Pro 30 - Kitchen Floor Cleaner



Oasis Pro 31 - Kitchen Floor Renovator



Oasis Pro 71 –
Manual Warewashing Detergent



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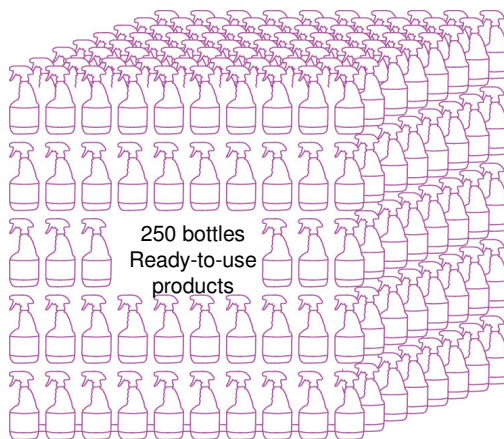
Innovations

Oasis Pro® superconcentrated products



2 liters

=



250 bottles
Ready-to-use
products

A single Oasis Pro
pouch can save
between 3 and 25 Kg of
plastic when compared
to RTU products

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* 2 litres of Oasis Pro 40 = 200 litres of solution. A typical ready-to-use product is sold in 750 ml bottles. 200 litres ÷ 0,75 litres = 266 bottles.



Safe Handling of Chemicals

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Working Safely with Cleaning Chemicals

1. Use common sense
2. Use protective clothing & equipment.
3. Use the right chemical for the job.
4. Never taste or smell chemicals.
5. Never use unknown chemicals.
6. Use dispensing equipment where possible.
7. Add chemical to water, NOT water to chemical.
8. Never mix chemicals.
9. Store chemicals in original containers.
10. Safely dispose of empty containers.
11. Report chemical problems to Supervisor.
12. Always read the label.

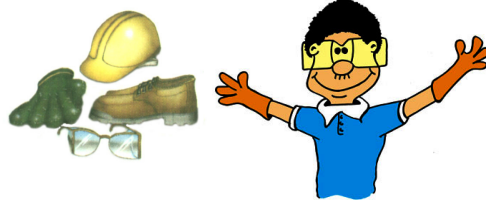
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Safe Handling of Chemicals

1 - Use Common sense!!!!



2 - Use protective clothing and equipment!!!



3 - Use the right chemical for the job.

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Safe Handling of Chemicals

4 - Never taste or smell chemicals!!!



5 - Never use unknown chemicals!!!



6 - Use dispensing equipment where possible.

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Safe Handling of Chemicals

7 - Add chemical to water.

NOT water to chemical.

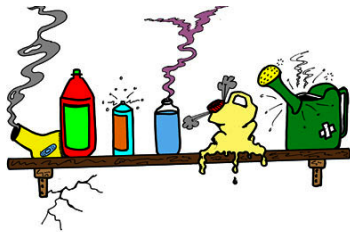


8 - Never mix chemicals!!

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Safe Handling of Chemicals

9 - Store chemicals in original containers.



Avoid poor storage!!



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Safe Handling of Chemicals

Flammable storage

- ▲ Locked metal cupboard
- ▲ Including aerosols
- ▲ See what happens to the lighters....



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Safe Handling of Chemicals

10 - Safely dispose of empty containers



11 - Report chemical problems to supervisor



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Safe Handling of Chemicals

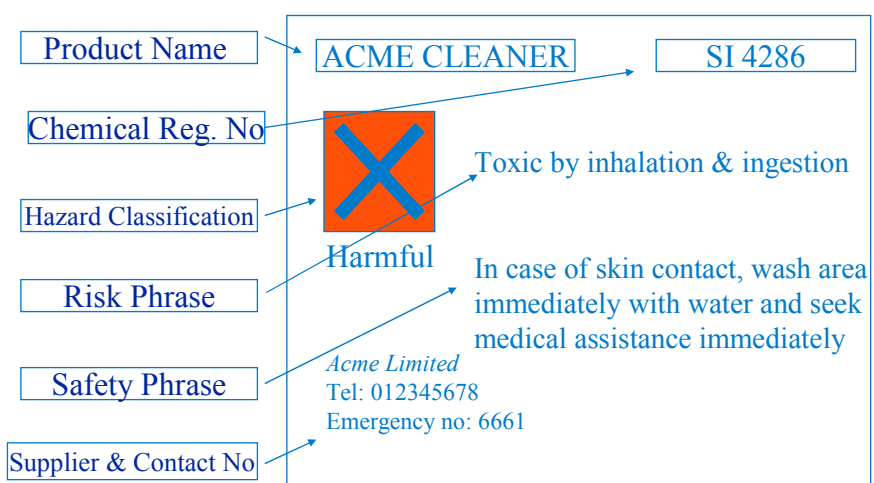
12 - Always read the label!!!!!!!!!!!!!!



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Safe Handling of Chemicals







Labelling



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Safe Handling of Chemicals

Hazard warnings

	Toxic		Explosive
	Harmful/ Irritant		Oxidizing
	Corrosive		Highly flammable

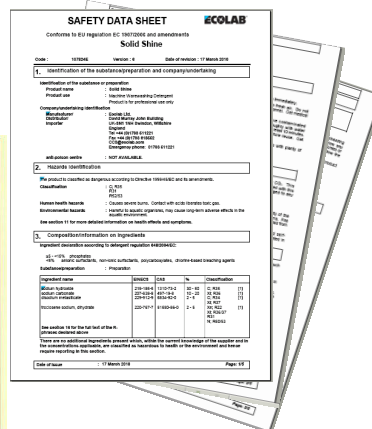


Safe Handling of Chemicals

Risk Assessment

MSDS – material safety data sheet

- Emergency number
- Storage
- Fire precautions
- First aid
- PPE



Safe Handling of Chemicals

starwood - Standard Operating Procedure

Hotels and
Resorts

Read and Follow

Starwood Global Hazard Communication SOP: RM-Safety-002

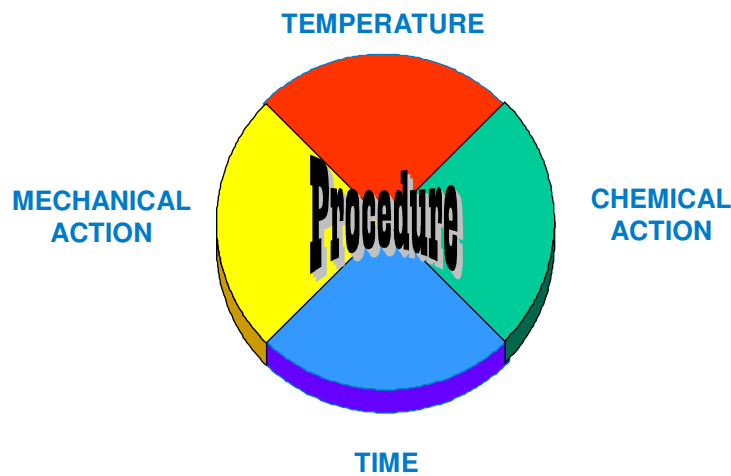
GOAL

- ▲ Minimize the risk of exposure to chemical hazards, physical hazards (e.g., noise and electrical energy), and biological hazards (e.g., pests, vermin, and bloodborne pathogens) by informing associates where and how they may be exposed to the hazards under normal working conditions or during an emergency situation; and how to avoid over-exposure to them.

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Safe Handling of Chemicals

The Five Factors of Cleaning



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Safe Handling of Chemicals

Always follow described procedures

STARWOOD
HOTELS & RESORTS WORLDWIDE, INC.

Starwood Diligence System

Temperature Recording | Cleaning | Medical Surveillance

Thursday, 20 August, 2009

Region: E A M E - A F I O (Africa & Indian Ocean) | Country: Cameroon | Hotel: Le Meridien Douala

Schedule set up for Le Meridien Douala

Area: Banqueting kitchen | Reference: 1804-

Item: Ceiling

Frequency: Once a day

Product: Ecolab - AIB CLEAN & SMOOTH (datasheet)

Hazchem: Toxic, Irritant / Harmful, Flammable, Marine Pollutant

Log off | View Reports | Set Up | Complete | Verify | Main

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Safe Handling of Chemicals

The Difference between Cleaning and Sanitizing

CLEANING –

The process of removing the maximum amount of soil from a surface in the most efficient way with the maximum retention of its original state.

SANITIZING –

Sanitizer - used mainly in food industry and implies reduction in the level of micro-organisms to a safe level.

Disinfection - used when referring to hard surfaces and implies the same as sanitizer.

Sanitizer = Disinfectant



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Safe Handling of Chemicals

Terms Related to Germicidal Activity

Antiseptic -

- An agent used in or on the body to prevent infection.

Sanitization -

- An agent or process that destroys or removes 99.999 % of vegetative organisms, but not necessarily all spores.

Disinfection -

- An agent or process that destroys or removes 100 % of vegetative organisms, but not necessarily all spores.

Sterilization -

- An agent or process that destroys or removes 100 % of all microorganisms.

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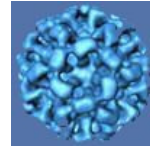


Norovirus

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Norovirus

What is Norovirus?



They are:

- ▲ small, rounded structured viruses.
- ▲ a common cause of gastroenteritis in humans.
- ▲ often referred to as Norwalk-like viruses.
- ▲ Noroviruses are highly contagious and are easily spread from person-to-person in a closed environment.

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Norovirus

Where is it found?

The most common settings for Norovirus outbreaks are:

- ▲ Restaurants and events with catered meals
- ▲ Hotels
- ▲ Military troops - Recreational camps
- ▲ Athletic and other sports teams
- ▲ Swimming pools or other recreational water supplies
- ▲ Cruise ships
- ▲ Institutional settings such as schools, nursing homes or hospitals

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Norovirus

How is it spread? Norovirus Transmission

- ◀ “Faecal-oral” route
- ◀ Food (39%)
- ◀ Hands (12% “person to person”)
- ◀ Water (3%)
- ◀ Air (aeroionisation with vomits)
- ◀ Environmental surfaces (vomits)

About 46% no data available

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Norovirus

How is it prevented?

- ▲ The outbreak is often started by the contamination of a common source of food or water.
- ▲ Prevention of the initial contamination of the food and subsequent person-to-person NLV transmission will prevent the occurrence and spread of NLV gastroenteritis outbreaks.
- ▲ In other words: **Good hygienic practice!**

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Norovirus

Where does the contamination come from?

1. Source

- Shellfish from contaminated water
- Contaminated water used for irrigation
- Sewerage used as fertilizer

2. Processing

3. Preparation

4. Food handlers

5. Guests

6. Insects



Food handlers – must maintain strict personal hygiene at all times not just when an outbreak occurs.

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Norovirus

What control measures are effective against Norovirus?

- ▲ Person to person transmission can be controlled by frequently washing hands.
- ▲ Environment disinfection.
- ▲ To effectively control an outbreak of NLV a specific hygiene plan must be implemented.

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Norovirus

Hand Hygiene

1. Hand washing is especially important before eating and after using the restroom.
2. In Norovirus outbreaks, alcohol-based hand sanitizers should be considered an adjunct hand washing and not a replacement.

Clean Hands in Just a Minute!!

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Norovirus

Personal Hygiene – Proper Hand Washing Procedures

- ▲ Wet hand with warm water
- ▲ Apply soap to hands
- ▲ Rub hands together vigorously for 15 – 20 seconds, covering all surfaces of hands and fingers
- ▲ Rinse hands with warm water
- ▲ Thoroughly dry hands with disposable towel or air blower
- ▲ Use towel to turn off faucet



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Norovirus

Personal Hygiene – Use of Hand Sanitizer

- ▲ Apply product to palm
- ▲ Rub hands together covering all surfaces of hands and fingers
- ▲ Rub until dry (15-20 seconds)
- ▲ Use on visibly clean hands
- ▲ Consider offering in public areas



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Norovirus

Cleaning and disinfection measures

- ▲ **All staff** must be instructed about residents infected with Norovirus and about the hygiene measures to be undertaken.
- ▲ **Hygienic hand disinfection** must be undertaken before and after every job with close physical contact, after possible contamination with material containing pathogens and after removing disposable gloves as well as after cleaning the room and before leaving the room.
- ▲ The **sanitary area** in the resident's room must be cleaned daily with disinfectant and after contamination with material containing pathogens using the products mentioned in the disinfection plan.
- ▲ The **daily disinfection or cleaning** must be undertaken using fresh cleaning utensils each time and the products mentioned in the disinfection and cleaning plan (if possible at the end of a cleaning rotation).
- ▲ Thorough **final disinfection** of all surfaces and fittings must be undertaken using the disinfectants mentioned in the disinfection plan once a Norovirus positive resident's room has become vacant.

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Norovirus

Hygiene Plan

In the event of an outbreak it is important that a comprehensive Hygiene Plan is implemented as soon as possible.

This must include the following

- ▲ **Single accommodation** is required for Norovirus patients.
- ▲ **Hygienic hand disinfection and the washing of hands** must be undertaken before and after every job with close physical contact, on contact with material containing pathogens or with contaminated objects.
- ▲ **Disposable gloves** must be put on entering the room and on physical contact with the resident and removed on leaving the room (turn inside out).
- ▲ **Mouth and nose protection** must be worn when handling faeces and vomit
- ▲ **Resident specific protective overalls or disposable aprons** must be used. These must be put on before entering the resident's room. The protective clothing is removed before leaving the room and remains in the room. The protective clothing is changed daily and immediately on visible contamination.
- ▲ **Personal laundry and bed linen** must be disposed of in the laundry transport system in the resident's room and prepared chemo-thermally (at temperatures from 60 °C upwards).
- ▲ **Cutlery and crockery** must be transported in a sealed and appropriately marked container and sorted into the dishwasher using disposable gloves. Alternatively disposable crockery can be used. A **disinfecting washing procedure** must be ensured in the dishwasher for reusable crockery.
- ▲ **Waste** is classified under group B and must be disposed of accordingly.

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Norovirus

Summary

1. Norovirus is a ubiquitous and highly contagious gastrointestinal pathogen.
2. Enhanced sanitation procedures are necessary to prevent and control Norovirus outbreaks.
3. Proper hand washing can have a significant impact on the spread of Norovirus in the hotel environment



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Sustainability

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Ecolab and Sustainability

The Triple Bottom Line

Economic Progress



- Investing in R&D to create innovative, effective products and services; helping our customers' businesses be successful; employing people around the world

Environmental Stewardship



- Reducing water and energy consumption, increasing safety and reducing waste – in our own operations and for our customers

Social Responsibility



- Fair and ethical business conduct and support of our associates, communities and business partners

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Ecolab is helping to make the world a cleaner, safer, healthier place

Every day, our customers use Ecolab products to:

- ▲ Wash over 250 million dishes
- ▲ Wash over 75 million hands
- ▲ Finish 2 million square meters of floor
- ▲ Clean over 3 million hotel rooms



The Ecolab Approach to Sustainability

Total Impact

- ▲ Ecolab considers the total impact our products and practices have on the environment. This includes:
 - How the use of the product will affect the use of natural resources
 - How the packaging will impact the environment
 - The safety of the end user



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The Ecolab Approach to Sustainability

Total Impact

Providing sustainable solutions that go beyond green to help you create a cleaner, safer, healthier environment.



CLEAN
SAFELY



SAVE
ENERGY



CONSERVE
WATER



REDUCE
WASTE

A comprehensive approach that can help you conserve resources, improve safety and reduce waste.

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The Ecolab Approach to Sustainability

Effective & sustainable

▲ Ecolab is dedicated to creating solutions that provide the best results – and protect public health – while having the lowest total environmental impact

- Many cleaning products can help remove dirt and germs from surfaces, but only disinfectants or sanitizers actually kill disease-causing microorganisms when used as directed
- Some “green” products do not offer protection against the viruses that cause colds and flu, or bacteria such as *Salmonella* and *E. coli*



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The Ecolab Approach to Sustainability

Effective & sustainable

- ▲ If good results aren't achieved in one application, steps need to be repeated. Often, that means:
 - Using more water and energy
 - Using more product
 - Increased cost
 - More chemical released to the waste stream

Products that are not effective are not sustainable!

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INNARCHIVE
Hospitality Library



&
ECOLAB

... a strategic partnership

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Starwood-Ecolab: A strategic partnership

We can help you reduce your environmental impact

- ▲ Conserve natural resources
- ▲ Minimizing waste and pollution

Ecolab, a sustainable supplier:

- ▲ Total impact approach to product design
- ▲ Ethical business partner strongly focused on sustainability
- ▲ Ecolab clean:
 - One-pass cleaning
 - Rinse-free formulas
 - Responsible ingredients
 - Minimum packaging
 - Concentrated products
- ▲ Safe, efficient dosing systems minimize chemical waste, and reduce electricity & water consumption
- ▲ Staff training & regular service visits improve efficiencies & reduce waste

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Starwood-Ecolab: A strategic partnership

We can help you reduce your environmental impact

- ▲ Enhance indoor environmental quality

Ecolab, a sustainable supplier:

- ▲ We can help you meet & exceed Starwood brand hygiene standards
- ▲ Ecolab training & support for efficient, optimum hygiene & clean, welcoming premises with minimum chemical use
- ▲ Raising environmental awareness
- ▲ Sustainability training increases staff consciousness regarding resource consumption (water, electricity, chemicals), recycling & the environmental impact of inefficient operations

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Starwood-Ecolab: A strategic partnership

We can help you reduce your environmental impact

- ▲ Reporting on key environmental performance indicators
- ▲ Real-time data reporting facilitates rapid rectification of sustainability issues, such as excess water, electricity or chemical consumption
- ▲ Consolidated reporting across units provides management an overview of how Ecolab is helping make your business cleaner, safer & more efficient

Ecolab, a sustainable supplier:

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Thank you

ECOLAB