



ISSUE ONE. 2014

## Environment, Health & Safety Magazine



...facing the  
EHS challenges  
together.

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Welcome to Sudarshan EHS Magazine, Issue One



# FACING THE EHS CHALLENGES TOGETHER

Change is certainly inevitable and rewarding too. Although difficult, exploring a brand new path is much wiser than remaining in the situation which does not lead to any nurturing.

In the present competitive scenario our customers perceive us as a strong partner.

“...the challenges faced with respect to Environment, Health and Safety are making us more excited to unlearn and amend our approaches continuously.”

Evolution has made many things once considered to be impossible, possible. Science and Technology has played a major role in our life. Chemical Technology has been one of the fields spear-heading a revolutionary change globally and working towards the benefit of mankind.

Friends, our Company has also made its contribution steadily and continues to do so though, in a small way. Our values are our foundation. As we have already made our mark as a global player across the world, the challenges faced with

respect to Environment, Health and Safety are making us more excited to unlearn and amend our approaches continuously.

As a team we all have been contributing in this area in our own ways at different levels and in various areas of our expertise. We thought of getting all these things on one platform and thus this idea of “Sudarshan EHS Magazine”.

We are committed to publish this eMagazine every quarter and look forward to your participation in this.



## SOLUTIONS FOR TOMORROW

The R&D team derives strength from the strong brand equity of our products and strategic presence across the world and drives the core value of the company through its qualified scientists.

In the present competitive scenario our customers perceive us as a strong partner.

We continue our endeavor to offer innovative and superior technology products to the market. We believe our success lies in the success of our valued customers.

Our people are our strength and they play a key role in identifying the new requirements of the customers and along with the help of our R&D, develop highly efficient and customized solutions.

Elimination of hazards and reduction in waste has been one of the focus areas by designers at R&D. Our values are transformed into products which are environment friendly and safeguard the operational

hazards. This has resulted in initiatives taken such as elimination of sulphuric acid dissolution and precipitation in red pigments, reduction in quantities of solvent usage in blue pigments and elimination of oleum in additive manufacturing for blue pigments.

We shall keep our focus on improving yields, productivity, quality and processes, which helps us in offering better quality of services to our customers.

...our people are our strength and they play a key role in identifying the new requirements of our customers.

Top: Azo Lab

Middle: R&D Main Building

Bottom: Application Lab





“ We consider the EHS function as important as any other function in our business.”

## RESPONSIBLE OPERATIONS

Safety is a responsibility. The new breed employed in the chemical and process industries must work effectively, perform well under internal pressures and rally organizations to make operations more safe and sustainable, as well as more efficient and profitable.

### Participative & Communicative Culture



Above: Management Participation & Communication

When an organization demonstrates its capabilities to align strategic training and career opportunities for employees, it recognizes that people are the real assets driving the physical assets and the technology, covering both line and support functions.

Ensuring right competencies and orienting themselves at the time of induction makes them fit for the job and ready them to handle critical roles. We consider the “EHS” function as important as any other function in our business.

As a result of all this above initiative, feeling of positivity is seen on the shop floor. This has resulted in many improvements being implemented at workplaces helping in reduction of unsafe condition and unsafe acts.

It is also helping us to develop mutual respect, caring and an open environment conducive to safety. Convincing and involving line managers and strengthening their beliefs that the “EHS” initiative can be ensured and sustained in better ways if we all are involved whole heartedly in it.

## Improving participation and communication at all levels.



Top: Employee Training

Middle: Brain storming sessions

Bottom: Reward & Recognition

### To improve the participation and communication at all levels, we have implemented:

- Systems to identify and control hazards.
- (Weekly HOD department rounds, target in PMS of individual department managers).
- Encouraging 'near miss' reporting.
- Imparting training on safe work practices.
- Developing engineering control for critical hazards.
- Conducting schedule meetings with all stakeholders.
- Schedule review of compliance meetings chaired by management.

...helping us to develop mutual respect, caring and an open environment conducive to safety.

...practices were changed as part of waste management system.

## WASTE IS SIMPLY PROFIT DEGRADATION

Solid waste management (SWM) has become an issue of increasing concern and continues to rise as consumption patterns change. The health and environmental implications associated with SWM are mounting in industries.



Above: Super Cell Segregation at source.

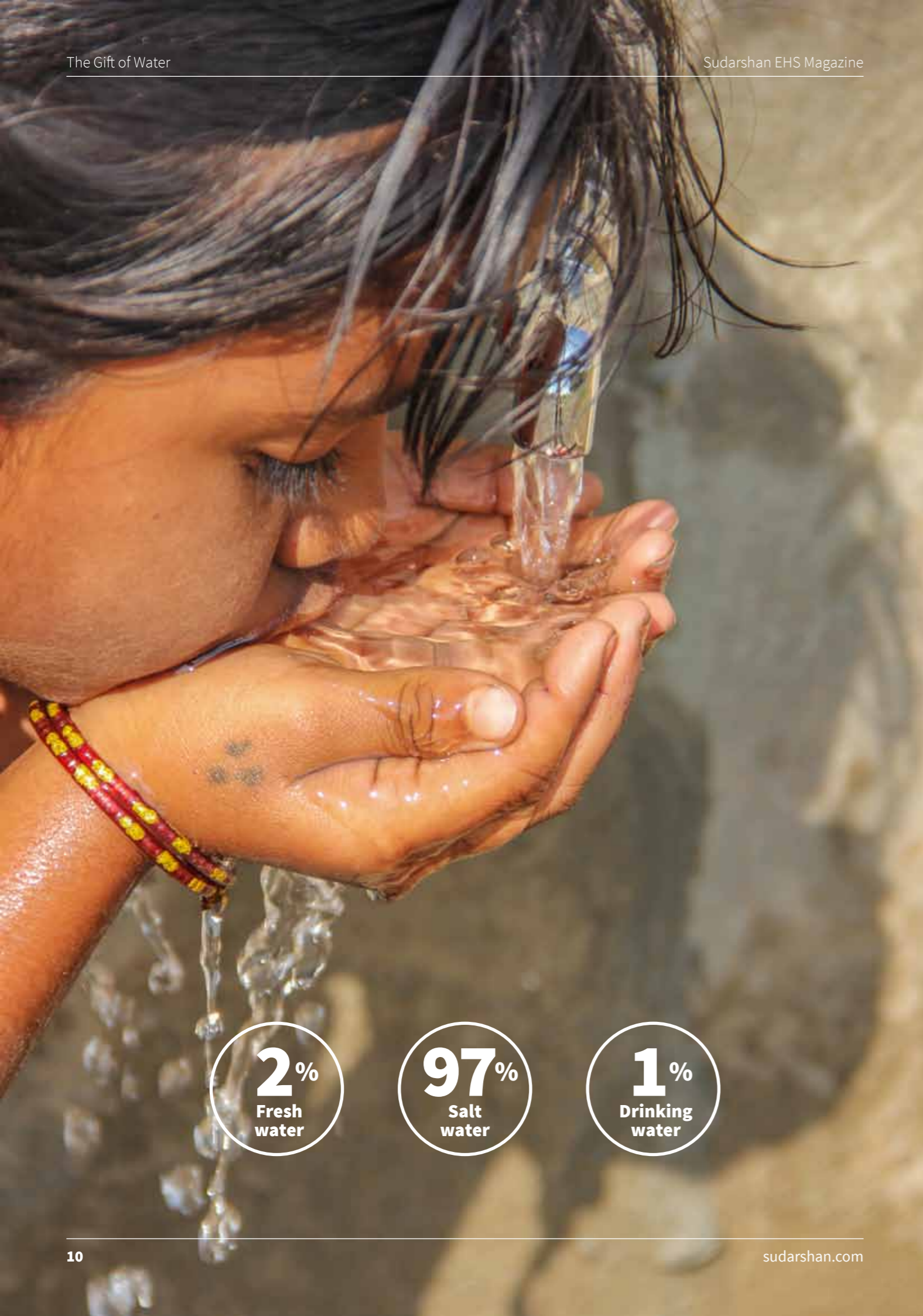
Engineering solutions can be the only approach to resolve these issues. Reduction of waste generation at source has been one of the areas we have been working in.

For example, the super cell is used in pre-coating purpose in the pigment manufacturing process. When the process is completed, the used up material was drained out to an effluent treatment plant resulting in TSS increases in our inlet effluent as well as an excess load on primary treatment of the plant.

We identified that there was an opportunity for control & segregation of contaminated super cell at source rather than direct discharge to ETP. This was implemented and to sustain, practices were changed as part of waste management system. We decided to collect separately and wash out the contaminated super cell material from each filter press and regularly handover to ETP for the further disposal.

### Benefits:

- Improved waste management system practices.
- Reduced the TSS load in ETP Inlet, led to smooth operation of primary treatment.
- Reduced raw material consumption in ETP.
- Awareness for hazardous waste segregation at source.



**2%**  
Fresh  
water

**97%**  
Salt  
water

**1%**  
Drinking  
water

# THE GIFT OF WATER



We know that being a pigment manufacturer, water is one of the key natural resources required for operations.

As a part of environmental sustainability it was our prime focus to conserve this natural resource.



**Top:** Shower water treatment plant recycling 125 m3/day.

**Bottom:** Treated water is being used for the garden.

Waterconservationencompasses the policies, strategies and activities to manage fresh water as a sustainable resource, to protect the water environment, and to meet current and future demand.

Considering the fact of life i.e. less than 2% of the earth's water supply is fresh water, 97% is salt water in oceans and seas & only 1% is available for drinking water. We at Sudarshan have focused our water conservation efforts by reducing water use in the process (use of advance technology washings, line automation to sense conductivity and pH for washings), recycling the water in the process and reusing treated water for general use.

Also, finding other controls of prevention of wastages (by capturing, rectifying leakage points, putting controls system

in cooling tower etc) minimizing use by alternate methods (by dry moping and stopping floor washing).

All these actions have helped us in reducing water consumption by more than 15% over a period from last year. This drive was made possible by involvement and active participation of our employees.

**...we have focused our water conservation efforts by reducing water usage.**



## FUEL, A CONCERN

Fossil fuels are materials that are non-renewable such as oil, gas and coal. Aside from causing local air pollution from polluting particulates, the burning of fossil fuels releases carbon dioxide into the atmosphere which is a greenhouse gas that contributes to climate change.

Moreover, many fossil fuels are reaching “peak” levels. Energy prices have increased at an alarming rate and the available interest in environmental responsibility is at an all time high.

Main image & below:  
Energy efficient lighting,  
LED street lighting



“...the journey towards excellence in energy efficiency & conservation is continual process for us.



Top: Boiler FD & Feed Water Pump Automation



Middle: Steam Turbine



Bottom: LPG Auto Burner

Many organizations are looking for ways to conserve energy, reduce carbon emissions, and save on overall utility costs. While total energy management is very complex, there are some relatively simple strategies that can reduce our energy consumption, lower costs, and advance our conservation goals.

At Sudarshan, we as a team have recognized this and taken up initiatives. Natural lighting was one of the areas which was improved upon by replacing roofs with transparent sheets. Energy efficient lighting such as CFL are being altered with LEDs wherever possible. At the design stage an appropriate energy-efficient lamp technology, controls, and other components for a high performance lighting system are considered as a part of practice.

Motors are being replaced with high efficiency designs which has resulted in significant cost savings, reduced down-time, and increased productivity. Improved efficiency of existing steam boilers and distribution systems. Installation of APFC panel, efficient transformers to reduce losses.

The journey towards excellence in energy efficiency and conservation is continual process for us. We strive to achieve the best energy norms in industries so that the available natural resource can be shared efficiently

# REDUCE, REUSE & RECYCLE



Recycling is a process to change (waste) materials into new products to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, reduce energy usage, reduce air pollution (from incineration) and water pollution (from land filling) by reducing the need for “conventional” waste disposal, and lower greenhouse gas emissions as compared to plastic production.

Recycling is a key component of modern waste reduction and is the third component of the “Reduce, Reuse and Recycle” waste hierarchy.

At Sudarshan, we have taken various initiatives on the theme of “Reduce, Reuse and Recycle” for different resources to reduce waste generation. This has resulted in increased profitability of the company as well as the reduced impact on environment.

### Benefits:

- Reuse of treated mica waste water in mica plant for floor cleaning and external equipment cleaning.
- Reuse of solvents like Methanol and IPA with the help of recovery plants.
- In-process recovery of IBN and its reuse.
- Recovery of pigment from waste streams. 0.2-0.4 TPD.

Top: Solvent Recovery Plant

Middle: Recovered Methanol Storage Tank

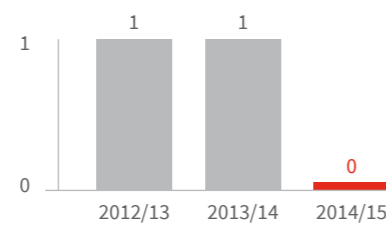
Bottom: Mica Water Recycle Plant



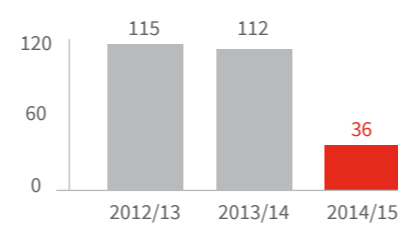


# PERFORMANCE AT A GLANCE

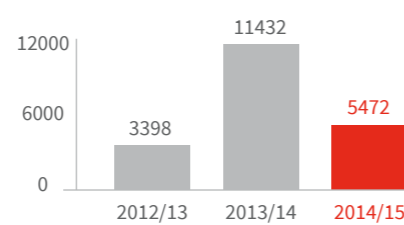
**Reportable Accident Trend**



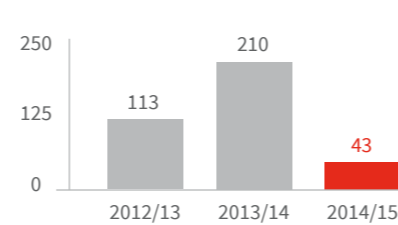
**First Aid Cases Trend**



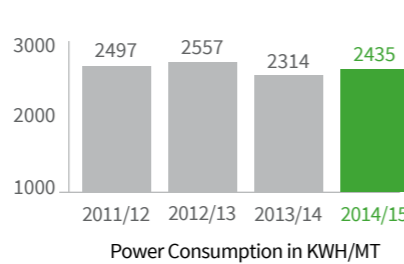
**EHS Training Man Hours**



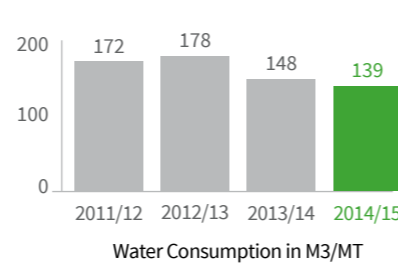
**Near Miss Incident Trend**



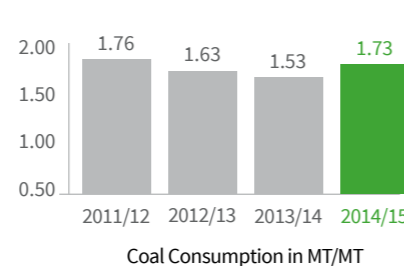
**Power Consumption**



**Water Consumption**



**Coal Consumption**



**Hazardous Waste Disposal**



# MOTIVATION FOR US

National Safety Council,  
Maharashtra Chapter

Maharashtra Safety Awards 2013



Every year, The National Safety Council, Maharashtra Chapter felicitate industry for achieving excellent results in the field of Health & Safety, for the lowest accident frequency rate and the longest accident free period.

Sudarshan have been recognized in the Chemical & Fertilizers Industrial Group for our Roha unit from Arvind Doshi, Chairman, Maharashtra Chapter for 2013.

“...the challenges faced with respect to Environment, Health and Safety are making us more excited to unlearn and amend our approaches continuously.”



**“...wearing a seat belt every time you enter a vehicle is not only the smart thing to do, it is the right thing to do because it saves lives.”**

### Safety Initiative

## THE IMPORTANCE OF WEARING A SEATBELT

We have all heard the excuses before, “It’s uncomfortable, I’m only going around the corner”, I’d rather be thrown out of a car than be stuck in a seatbelt,” and my favorite, “I’m a good driver. I don’t need to wear one.”

Well you may be a good driver but there are situations beyond your control such as bad weather, road conditions and not to mention other drivers that can affect your safety. Seat belts can mean the difference between life and death in vehicle accidents.

Wearing a seat belt every time you enter a vehicle is not only the smart thing to do it is the right thing because it saves lives, it’s the law and it will save your family and nearest and dearest.

Passenger vehicle accidents are the leading cause of death for people in road accidents. Wearing a seat belt can prevent death in about half of these accidents.

So learning from the above, we at Sudarshan have decided to have mandatory usage of seatbelts for all our employees and associates in our official as well as in their personal vehicles. Request to all for support with this noble initiative and to make it a great success.

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**Sudarshan Chemical Industries Limited**

Global Head Office: 162 Wellesley Road  
Pune - 411 001, India  
Tel: +91 20 260 58 888  
Fax: +91 20 260 58 222  
Email: [contact@sudarshan.com](mailto:contact@sudarshan.com)

**Sudarshan Europe B.V.**

Orlyplein 85, Busitel 1  
1043 DS Amsterdam  
The Netherlands  
Tel: +31 (0)20 403 7504  
Fax: +31 (0)20 403 7502  
Email: [eu@sudarshan.com](mailto:eu@sudarshan.com)

**Sudarshan North America Inc.**

76 N. Walnut Street  
Ridgewood, NJ  
USA 07450  
Tel: +201 652 2046  
Email: [usa@sudarshan.com](mailto:usa@sudarshan.com)

[sudarshan.com](http://sudarshan.com)

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