



Page 1 of 4

Basel, March 22, 2002

## Documentation

### ***Effects Through Chemistry***

***Presentation by Tim Schlange, Head of the Home & Personal Care Segment of Ciba Specialty Chemicals, at the Annual General Meeting, 2002***

Effects Through Chemistry:

Ladies and gentlemen, what do we mean by this? I would like to illustrate what we mean with a couple examples – and build a bridge from chemistry over the effects to the end products that you use everyday, products that also improve your personal quality of life.

We encounter effects everywhere, in everything that we see and experience, day after day.

We are familiar with special effects from the movies. They create excitement, atmosphere, dynamics, and illusions. Effects from Ciba are, in comparison, very concrete And they create value.

We protect materials from heat, corrosion, and wear, for example, thereby making them more durable. We improve and add ornamentation to plastics, paper, and textiles, amongst others. But we also protect people and products from UV radiation, fire, and bacteria.

Chemistry is a permanent part of daily life, and it is impossible to imagine our everyday world without it. Beneficial effects through chemistry, that is what Ciba is all about. However, our chemistry is often not immediately visible. It can only be perceived indirectly through its end effects.

In order to develop new effects successfully, we have to recognize at an early stage how consumers' needs are changing. For this reason, we work together very closely with our customers – with manufacturers of paint for the automotive industry, with textile dye plants, and with detergent producers. We create greater value for consumers and a better quality of life through our innovative chemistry, professional expertise, and knowledge about end-user markets.

\*\*\*

Let me show you now some examples of how Ciba's chemistry effectively improves quality of life. And how those of us involved in research are continually generating new effects.

Let's take light as an example. Light can be very useful – think of the growth of plants. But light can also be very damaging – sunburn is one example. Ciba knows how to use light and control its effect. The use and control of light is one of our core technological competencies. We use it to create effects that improve the quality of life.

Light is an interesting phenomenon: when it falls on matter is absorbed, reflected, refracted, or changes its wavelength, which we then perceive as a change in color.

Matter absorbs light. We can influence absorption through chemistry in order to obtain advantageous effects: In sun protection creams, Ciba products protect the skin from UVA and UVB radiation, and light stabilizers in plastics prevent yellowing caused by sunlight.

On the other hand, we use light to set dyes and cure or harden paints.

You have our Annual Report in your hands and with it an important Ciba effect: brilliant colors and high gloss. Thanks to Ciba photoinitiators, printing inks dry in seconds – by means of ultraviolet light instead of heat, as used to be the case. This ensures glossiness and brilliance and offers the printer economic advantages. He can produce more quickly and save on energy and solvents, and this is a big advantage – also for the environment.

UV curing is fast becoming the industry standard. The corresponding market is experiencing double-digit growth. This Ciba effect, which is used for high-quality brochures and publications like our Annual Report, for posters, foil, or packaging, improves appearance and productivity and is at the same time environmentally compatible.

But back to the subject of light: Depending on the properties of the material, light is either refracted or its wavelength is changed. Ciba understands how to exploit these physical processes through chemistry. It is continually developing new, innovative possibilities for transforming light into added value effects.

Here is a recent and fascinating example from the agricultural world: plants need light and heat to grow. Experiments have now shown that the wavelength of light also plays an important role and that red light activates plant growth.

On the basis of this knowledge, we were able to develop a revolutionary effect. Pigments and additives from Ciba can transform the wavelength of incident sunlight into growth-promoting, red light. We utilize this effect in plastic sheeting for greenhouses.

The result: Roses in the greenhouse not only grow better and more quickly, but it is possible to grow significantly more roses. Rose cultivators are enthusiastic about this increased productivity.

This is just one example of the specific utilization of light to increase effects like protection, strength, performance, and productivity.

\*\*\*

Ciba is also a world leader in the stabilization of organic substances. Oxidation of materials can cause enormous damage, as you well know. But it doesn't have to. We develop agents called antioxidants that prevent oxidation so that motor oil will last longer or so that skin cream will not change its color or odor, to cite two examples. These chemical processes function in a wide variety of materials – such as plastics, food packaging, or cosmetics – and have identical effects: stabilization and increased durability.

\*\*\*

But chemistry can do even more. For example, it can alter the properties of surfaces. Another of Ciba's key areas of technological expertise is modification of the surfaces of paper, textiles, and plastics.

How do we use this technology to improve everyday products?

When your children or grandchildren bite into a juicy hamburger it should, thanks to Ciba, happen without the occurrence of greasy fingers. Ciba puts an end to grease-soaked packaging. Working together with the paper industry, we develop grease-resistant coatings. And we are profiting from the increasing trend towards eating fast food. You will find this Ciba effect in many types of packaging used by major companies such as Nestle, Mars, or McDonalds.

To cite another example, can you guess how much time an average family spends ironing each year? Twelve full days. Ciba has set out to change this situation. Our products make it possible to put on shirts right off the clothesline – without ironing them. You can buy shirts that never need to be ironed.

The key factors when buying an article of clothing, as you will probably agree, are easy-care properties, feel-good qualities, comfort, and naturally color. Ciba offers can all these effects in one stop. We provide products for textile finishing that give clothing properties like stain resistance and freshness — properties that last. We also provide moisture control, which ensures greater comfort, especially in sports apparel.

In such garments, moisture is "whisked away" from the body. Consequently, the material remains pleasantly dry, even when you are perspiring. And it protects you from chills when the workout is over. Reebok Hydromove apparel is treated with this Ciba effect, and also the shirts worn by top soccer teams.

\*\*\*

We create effects that improve the quality of life – through chemistry. We are working systematically across segments to develop these effects further, to provide innovative advantages for consumers. We are convinced that this will enable us to open up new fields of business. And we are building on our synergies in research, technology, and effects-expertise.

\*\*\*

Improved end products are the result of our technological competence, for example, in the areas of photochemistry, stabilization, or surface modification. Protection, color, performance, and strength are some of our most important effects. They improve end products and — in the end effect — also your quality of life.

In conclusion:

We hope that the examples we have chosen have given you an idea of how Ciba makes valuable contributions to your daily lives. However, the positive business development of Ciba Specialty Chemicals is also in your interest as shareholders. We are committed to achieving this goal, in that our competency in the area of effects creates new markets. And, if we are successful in creating utility and benefit – for our direct customers and for the end consumers — we will also grow in the future.

Effects through chemistry, that is what Ciba is all about. For a better quality of life.

Thank you very much for your attention.