# **ZEON Group (Japan)**

Optes Inc.

#### Introduction to Optes Inc.

Optes Inc. is a contract manufacturer for ZEON Corporation that molds and processes products mainly used for optical films and small molded components using ZEONEX® and ZEONOR®, transparent plastics that ZEON Corporation developed independently. We have production bases in Tochigi and Toyama prefectures. Our Toyama Plant manufactures films for LCD displays, while our Sano Plant in Tochigi produces medical test cells. Through the contributions they make to energy conservation, these products represent our ongoing effort to achieve a more harmonious relationship with the global environment by bringing creative,



Plant Manager Tunehisa Ueda

environmentally friendly products to the world using unique and innovative technologies that neither imitate nor can be imitated themselves.







Optes Toyama Plant (Himi)



Optes Toyama Plant (Takaoka)

# **Environmental and Safety Activities**

## 1. Comprehensive Safety Efforts

We are striving to reduce our environmental impact by setting goals to achieve zero accidents, zero injuries, and 100% yield\*¹ while making products with an emphasis on safety, quality, and the environment. Safety efforts include macro risk assessment\*², near-miss incident identification\*³, and 4RKY\*⁴, all of which are aimed at identifying and addressing potential hazards in our workplaces and operations. These activities seek to raise our employees' sensitivity to risks and protect everyone who enters our plants. Because our Toyama Plant lies next to a river, we have taken a lesson from the Great East Japan Earthquake and added evacuation drills to our annual emergency-response training program.

\*1.Yield

Ratio of actual production volume to production volume expected from raw material inputs

\*2.Macro risk assessment

Assessment of risks that take place on a higher, broader level

\*3.Near-miss incidents

Near-miss incidents are unplanned events that nearly result in an accident, injury, or other loss.

\*4.4RKY

A risk assessment method whereby employees proactively eliminate risk by discussing and learning from each other about potential risk factors in their work environment and tasks as well as the circumstance those factors can create. The program consists of four steps, or rounds (R), hence the name 4RKY (KY is for "kiken yochi," or risk assessment).

#### 2. Environmental Data

Optes Inc. Sano Plant		FY2007	FY2008	FY2009	FY2010	FY2011
Substances covered by PRTR law	Number of substances	1	1	1	1	1
	Consumption (tons)	0.1	0.1	0.1	0.0	0.0
	Amount emitted (tons)	0.1	0.1	0.1	0.0	0.0
Industrial waste	Amount generated (before volume reduction) (tons)	25	16	11	7.2	5.9
	Amount sent to landfill (tons)	10	16	11	0.7	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m <sup>3</sup> )		27	18	4	4	4
CO <sub>2</sub> emissions (tons)		1,760	1,580	1,711	1,015	1,105
Energy consumption (crude oil equivalent, kL)		992	888	981	611	664

Optes Inc. Toyama Plant		FY2007	FY2008	FY2009	FY2010	FY2011
Substances covered by PRTR law	Number of substances	0	0	0	0	0
	Consumption (tons)	0	0	0	0	0
	Amount emitted (tons)	0	0	0	0	0
Industrial waste	Amount generated (before volume reduction) (tons)	830	200	462	419	707
	Amount sent to landfill (tons)	0.0	0.0	0.8	1.5	0.0
Water resources (Industrial water + Ground water + Waterworks) consumption (1,000 m <sup>3</sup> )		-	-	40	50	31
CO <sub>2</sub> emissions (tons)		18,398	20,798	19,604	13,159	8,499
Energy consumption (crude oil equivalent, kL)		7,708	8,608	10,058	10,501	9,390

## **Activities with the Local Community**

Optes engages with its local communities throughout the year. To help beautify areas near our plant in Toyama, we participate in cleanup efforts in the Kamitako area of Himi City. In spring and fall we pick up litter and pull weeds around our plants, and in summer we clean up local beaches. We also hold plant tours for summertime children's clubs. Some children studiously take notes while we explain how our products are used in familiar electronic devices like LCD televisions, mobile phones, and video game consoles. While watching films be made in a cleanroom, we were happy to hear one child tell us, "Someday, I want to work in a clean factory like this one!"



Cleanup in Kamitako, Himi City in Toyama



Children touring the factory