



Establishing a Society in Harmony with Nature

In response to increased international regulation of the use of chemical substances, we are pressing forward with the development of products and processes that do not use any environmentally hazardous substances. In addition, we are promoting initiatives for biodiversity and activities that involve working with local communities, with the aim of establishing a society in harmony with nature.

Enhancement of the management of chemical substances contained in products

For newly regulated environmentally hazardous substances such as phthalate esters (4 substances), which are used as plasticizers for lead in soldering and for resins and rubbers, we are moving forward with changing over to products that do not contain those substances. In addition, for newly designed products, we are making appropriate revisions to our design standards so that no environmentally hazardous substances are used, in accordance with the law and with customers' requests.

Regulation status

	2014	2015	2016
Whole world		● GHS Rev. 6	
Europe	● EU RoHS2 Directive brought into force		● EU ELV Directive Annex II Revision
	● EU REACH Regulation		
	SVHC (Up to the 15th list: 169 substances in total)		
	Substances requiring approval (Up to the 4th list: 31 substances in total)		
	Restricted substances (Up to entry 66)		
	● EU BPR	● EU CLP (Categories/labeling for mixed substances)	
North America	Establishment/revision of laws in each state		
	● State law of California, U.S. Green Chemistry Initiative	● Products Containing Mercury Regulations, Canada ● HPR, Canada	● HCS/OSHA, U.S. (Categories/labeling for mixed substances)
			● TSCA revision, U.S. ● Regulations Amending the Prohibition of Certain Toxic Substances Regulations, 2012, Canada
Asia	● Provisions on Environmental Administration of New Chemical Substances, China		
	● Korean REACH ● Revised WEEE/RoHS/ELV regulations, Korea ● GB/T30512-2014, China	● AIS-129, India	

* REACH Regulation: Registration, Evaluation, Authorization and Restriction of Chemicals (Rules regarding the registration, evaluation, authorization and restriction of chemicals)

Changing the grip part materials for an immobilizer key

We changed the materials used for the grip part to materials that do not contain phthalic esters, which are subject to the restrictions under the RoHS Directive* (DEHP, DBP, BBP, DIBP), in order to reduce the environmental load.



Immobilizer key

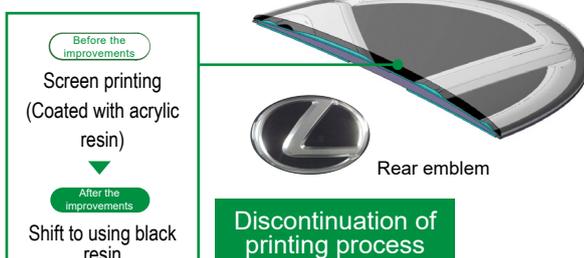
* A directive regarding the restriction of the use of specific hazardous substances in electrical and electronic equipment, established by the European Union (EU)

Reduction of VOCs by discontinuing the use of printing on rear emblems

Because the black parts of the conventional emblems were applied by means of printing using organic solvent inks, reduction of VOCs was an issue. However, by replacing the black parts with a molded colored resin, we have successfully

achieved emblems that are both VOC-free and have a highly aesthetic appearance.

Decoration in the black part



Voice

The hardest part in this improvement was how to eliminate appearance defects that would occur during molding. Cooperating with Engineering Divisions, Production Engineering Divisions and Quality Control Divisions, we put our heads together, and were able to stop using the printing as a result. I'm extremely glad that all our efforts bore fruit.



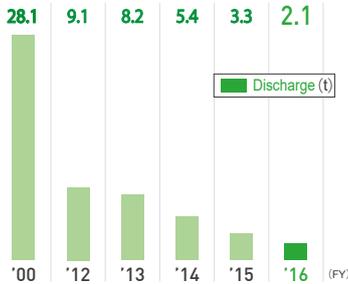
Production Engineering Development Division
Takahiro Tsunekawa

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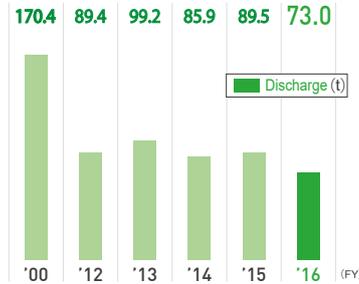
Reduction of environmentally hazardous substances in production activities

We are minimizing the use of hazardous substances in production processes, to make the risks to the environment and people ever closer to zero.

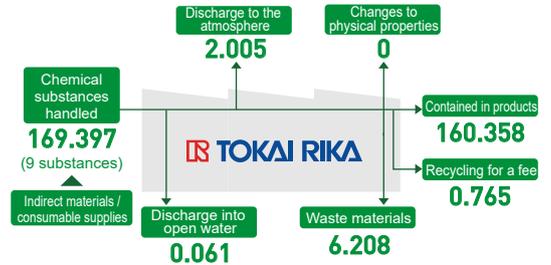
□ Discharge of PRTR substances by the company as a whole



□ Total discharge of VOCs (volatile organic compounds)



□ Amount of PRTR substances discharged/transported

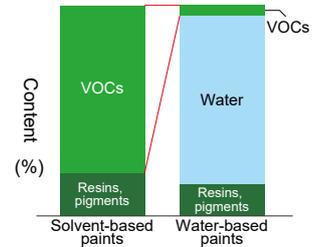


Adoption of water-based paints for interior switches

We have adopted water-based paints for interior switches in vehicles for overseas markets. This is the first time they have been tried in our company. Compared to conventional paints, water-based paints have a very low content with regard to VOCs (volatile organic compounds), and using them is contributing to both safety and health for workers and to environmental preservation.



Exterior light switch in which water-based paints have been adopted



Promotion of social contribution activities that will assist the establishing of a society in harmony with nature

Under our business philosophy of "working in harmony with nature and the local community," we are working on activities that will contribute to global environmental protection in various ways, as a "good cooperate citizen."

Cleanup activities for the local community

The Head Plant and the Otowa and Hagi Plants have registered with the Adopt Cleanup Program, which the cities and towns in the region are promoting, and are carry out cleanup activities on a regular basis. The Gojo River, which runs near the Head Plant, is a famous place for cherry blossoms, and cleanup activities are conducted every March with the participation of many employees, their family members, and former employees, in order to make the river that runs through the town a beautiful place for people to go and relax.

Voice

I first took part in the cleanup activity when my husband invited me to come along. The Gojo River looks clean at a glance, but even there, I found lots of plastic bags, cigarette ends and other garbage. I was surprised, but at the same time, I was glad I had taken part. Now, I really enjoy taking part in the activity, and all the while imagine the river getting cleaner and cleaner.



Material Engineering Division
Emiko Sakurai



Cleanup activity, Oguchi Town Adopt Program



Gojo River cleanup activity



Participants in the Gojo River cleanup activity

Promotion of environmental preservation / conservation of biodiversity

Initiatives such as tree planting are being promoted in the whole of the Tokai Rika Group, in order to be able to contribute to the conservation of biodiversity and the achievement of a sustainable environment.

Biodiversity initiative guidelines

Guideline	Matters for implementation
1 Working together with society to foster nature	<ul style="list-style-type: none"> Building a society that nurtures biodiversity, through cooperation with local communities and All Toyota Raising employees' awareness by means of enlightenment, and encouraging them to take action
2 Introducing eco-friendly technologies	<ul style="list-style-type: none"> Lightweight/recyclable product designs, management of chemical substances
3 Promoting business activities that are in harmony with nature	<ul style="list-style-type: none"> Preserving water areas, reducing CO₂, circulating resources, reducing environmentally hazardous substances
4 Actively disclosing information	<ul style="list-style-type: none"> Transmitting information on the content of initiatives

Promoting tree planting activities on a global level

We are continuously rolling out tree planting activities on a global level, through collaboration with local communities and NGOs. In FY 2016, our employees actively participated

in activities to plant trees, such as the planting of cherry trees carried out at TRIN (U.S.).



Tree planting activity at TRCF (China)



Tree planting activity at TRCT (China)



Mangrove planting activity at TRI/TRSI (Indonesia)



Cherry tree planting activity at TRIN (U.S.)

Surveys of a river ecosystem

We conducted a survey of the Yado River, which is adjacent to the Head Plant, to check the structure of its ecosystem. While we were able to confirm the presence of creatures that live in the area, such as "Shimahire Yoshinobori" (Rhinogobius sp. Banded Fin), we also found non-native species that threaten biodiversity, such as "mosquitofish" and *Procambarus clarkii*, so we are promoting activities to maintain the ecosystem.



Survey of the Yado River ecosystem



Shimahire Yoshinobori (Rhinogobius sp. Banded Fin)

Lecture on biodiversity

To deepen employees' understanding of the importance of biodiversity, we held lectures with the themes "Toward a sustainable society that biodiversity will bring about" and "Conservation of biodiversity in the future, and the role of companies," for which we invited the secretary-general of the "Japan Business Initiative for Biodiversity."



Lecture on biodiversity