

# Substances of Concern

## Reduction and Management of SOCs in Products and Production

### Basic Policy

We in the Toyota Auto Body Group are making efforts to strengthen activity to reduce emissions volume of SOCs that are a concern to our health and our environment.

Regarding vehicles, following in step with the End of Life Vehicle (ELV) European regulations, in 2007 the Registration Evaluation Authorization and Restriction of Chemicals (REACH※<sup>1</sup>) was issued. REACH made clear industry's responsibility for managing chemicals and the expansion of target substances. In addition, we are promoting reduction activities for chemical substances at the time of production, which are conforming to the basis of PRTR systems. Hereafter, we will continue to move toward products and production that limit SOCs as much as possible by use of chemical substances.

### Action items

#### Development and Design

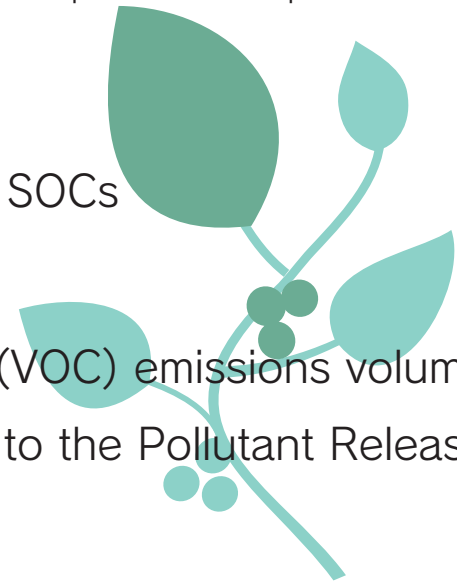
- Promoting further reductions and management of SOCs

#### Production and Logistics

- Measures to reduce Volatile Organic Compound (VOC) emissions volume
- Reduce emissions volume of substances subject to the Pollutant Release and Transfer Register (PRTR).

※<sup>1</sup> REACH : The Registration Evaluation Authorization and Restriction of Chemicals

These chemical substance regulations aim to clarify industry's responsibility for chemical substance management and minimize impact of chemical substances on people and the environment.



Activity Status

Development and Design

## Promoting Further Reductions and Management of SOCs

### Complete Elimination of the Four SOCs

Toyota Auto Body has been making effort for the early elimination of the four SOCs (lead, mercury, cadmium, hexavalent chromium) based on the European ELV regulations and Japan Automobile Manufacturers Association(JAMA) self-initiated targets. As a result, we have almost completely eliminated SOCs in all Toyota Auto Body products, including domestically produced vehicles in 2006, and also electric vehicles and specially-equipped vehicles at the end of 2007.

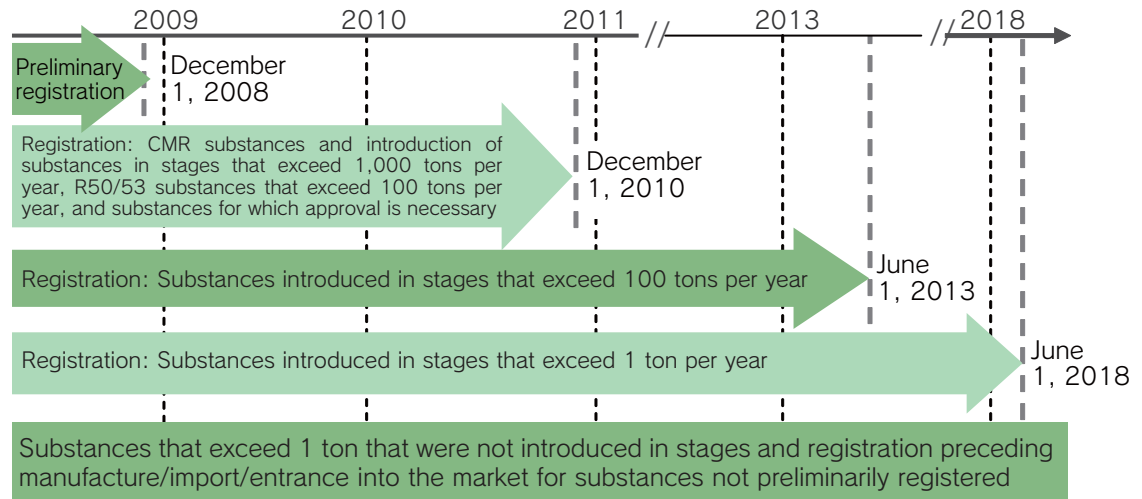
### Achieved Vehicle Interior VOC Japan Automobile Manufacturers Association Self-Initiated Targets

Through reassessing vehicle interior adhesives and materials with reductions in VOCs for such as formaldehyde, which is indicated for volatilization from interior parts and also bad smells and irritation of the throat and nose, we achieved self-initiated reduction targets established by the Japan Automobile Manufacturers Association for the new model Prius.

### Addressing European New Chemical Substance REACH\* Regulations

From FY2008, we have been promoting activities to be consistently carried out at the same time as Toyota Motor Corporation in looking to assure that REACH regulations are addressed.

#### REACH regulation schedule



Reference: Guideline concerning the Japan Automobile Manufacturers Association Translation of REACH

\*REACH : Registracton Evaluation Authorization and Restriction Chemicals

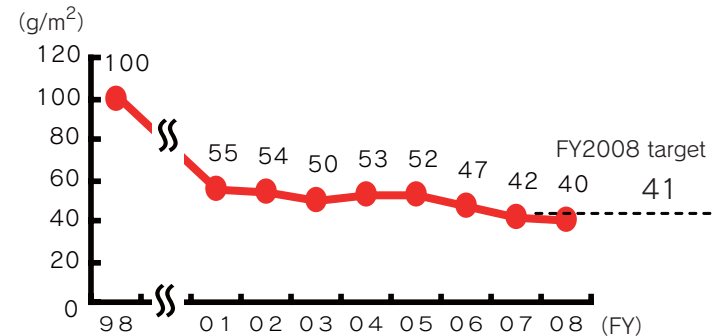
Activity Status

Production and Logistics

### Reducing VOC Emissions Volume in Production Processes

One cause of photochemical oxidant is considered to be linked to VOCs. Activities at Toyota Auto Body to reduce VOC emissions volume include concerted efforts to switch over to water-borne paints and recover cleaning solvents after painting. In FY2008, we achieved our FY2010 target two years early with an average emissions volume per painted area of 40 g/m<sup>2</sup> for the entire painting line.

- VOC emissions volume per painted area (Body painting)  
 [FY2010 target: Less than 40g/m<sup>2</sup>]  
 (60% decrease compared to FY1998)



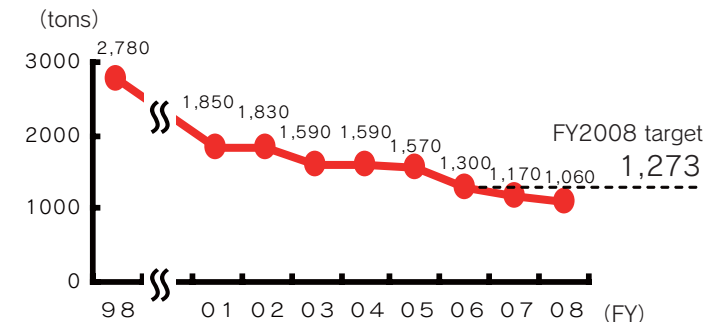
Activity Status

Production and Logistics

### Reducing Emission Volume of Substance Subject to PRTR

Substances subject to PRTR released into the atmosphere from Toyota Auto Body are mostly toluene and xylene that are found in paint and thinner. In FY2008, by switching to intermediate coat paint with low levels of PRTR materials at our Yoshiwara, Inabe, and Fujimatsu plants, we emitted 1,060 tons/year of PRTR, a 62% decrease compared to FY1998, and similar to VOC, we achieved our FY2010 target early.

- Emissions volume of substances subject to PRTR (Atmospheric release)  
 [FY2010 target: Less than 1,100 tons]  
 (60% decrease compared to FY1998)



- Comparison of composition of emissions volume of substances subject to PRTR (FY2008)

