

Reducing Hazardous Chemicals

Substances containing chemicals deemed potentially harmful to the environment are used in the maintenance of ANA Group aircraft; these include washing liquids, de-icing agents and paints. We are replacing these substances with those free of hazardous chemicals and refining methodologies to lessen our impact on the environment.

■ Compliance with PRTR Law

ANA uses approximately 2,000 different products containing PRTR*1-regulated substances, most of which are employed in aircraft maintenance. The use of such products, however, is extremely low compared with the manufacturing industry. To manage and conduct the required registration of these products, we have created a unified inter-company database that groups them according to type, quan-

tity, composition and usage status. ANA has been attempting to extend this system throughout the Group.

In FY2006, the ANA Group used 32 such substances; total consumption*2 was 21.5 tons, some 20% less than FY2005. The reason for this decrease was our conversion to alternative substances, along with the fact that FY2006 did not call for the periodic replacement of solvents.

The ANA Group will continue to reduce its dependence on these substances given their potentially negative impact on the environment, and continue to study alternative materials and methods.

*1 Pollutant Release and Transfer Resister, managing the discharge and disposal of special chemicals controlled by law

*2 Total of discharge and disposal

Type 1 Designated Chemical Substances over 500kg Used by ANA Group (FY2006)

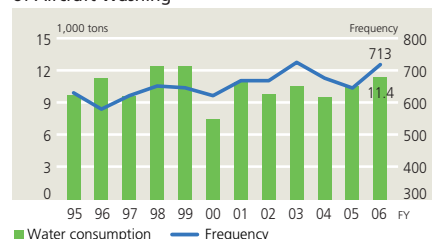
Volume rank	Item	Purpose of usage	CAS No.	Improvements, etc.
1	Trichloroethylene	Steam washing before plating	79-01-6	Reduced by preventing steam diffusion and collecting liquid solution
2	Dichloromethane	Paint removal	75-09-2	Replaced most parts with non-chlorine-based agent alternatives (E-1092T)
3	Toluene	Solvent used for paint	108-88-3	
4	Tributyl phosphate	Hydraulic aircraft fluid	126-73-8	
5	Xylene	Solvent used for paint	1330-20-7	
6	Phenol	Paint removal	108-95-2	Less than 1 ton

■ Aircraft Washing and Discharged Water Processing

At Narita and Haneda airports, aircraft are washed at night. The growth of ANA Group fleets in FY2006 meant that more washings, and thus more

water, were required. After each washing, water is treated at the airport's treatment facility and then discharged into the public sewage system.

ANA Group Water Usage and Frequency of Aircraft Washing



■ Anti-freezing and De-icing Agents

For safety reasons, aircraft are not permitted to take off with snow or ice on the wings or fuselage. Snow is removed using large amounts of hot water or compressed air, followed by the application of an anti-freezing agent. The ANA Group switched from previous

anti-freezing agents to propylene glycol (not subject to PRTR Law) in 1996, and has made efforts to develop better equipment and work procedures to reduce the amount of anti-freezing agent required.

Propylene Glycol Consumption and Frequency of De-icing and Anti-freezing

