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REPORT

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Test of SAGAN COAT Photocatalyst Coating Solution TPX for Acute Oral Toxicity in Mice

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I, the undersigned, hereby declare that the work described in this report was performed under my supervision, as Study Director, and that the report provides a true and accurate record of the results obtained.

This is a translation of the original report, No. 207062138-002, written in Japanese.

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1. Abstract

The test sample, SAGAN COAT Photocatalyst Coating Solution TPX, was tested for acute oral toxicity in male and female mice.

To the experimental animals, the test sample was administered orally at a dose of 2,000 mg/kg b.w. (body weight), and the experimental period was 14 days. The control animals were given cotton seed oil as vehicle control. As a result, the test sample caused neither abnormalities nor death in any of the rats during the observation period.

Consequently, we concluded that the LD50 value of SAGAN COAT Photocatalyst Coating Solution TPX was more than 2,000 mg/kg b.w. in male and female mice.

2. Test sample

SAGAN COAT Photocatalyst Coating Solution TPX
Character: yellowish suspended solution

3. Test period

From July 13 to August 08, 2007

4. Preparation of test dilution

The test sample was diluted with water for injection to make a 100 mg/mL test dilution.

5. Experimental animals

Male and female mice of ICR strain were purchased from Japan SLC, Inc. The mice were obtained at an age of five weeks. They were acclimated to the laboratory conditions for a week to verify that no abnormalities were shown in general condition. They were housed in plastic cages (five animals per cage) under the standard laboratory conditions (Temperature: 23 ℃±2 ℃, Light-dark cycle: 12/12 hours). And they were given Labo MR Stock diet [Nihon Nosankogyo K.K.] and tap water *ad libitum*.

6. Procedures

Male and female mice were allocated into experimental and control groups each consisting of 5 mice.

The mice were not fed for about 4 hours prior to administration, and then they were weighed.

To the experimental group, the test sample was administered orally at a dose of 2,000 mg/kg b.w. of the test sample (at the dosage of 20 mL/kg b.w. test dilution) using a stomach tube.

To the control group, 20 mL/kg b.w. of water for injection, as vehicle control, was administered in the same manner as described above.

The clinical observations were made frequently on the day of administration and once a day during the observation period (for 14 days). The mice were weighed at 7 and 14 days after administration, and the mean body weight values of the experimental and the control groups were statistically analyzed by t-test ($p=0.05$).

At the completion of the test, all of the mice were sacrificed for necropsy.

7. Results

1) Deaths of animals

Neither male nor female mice died during the experimental period.

2) Clinical observations

No abnormalities were observed in male and female mice during the experimental period.

3) Body-weight changes (Tables 1 and 2)

No significant differences in body weight of male and female mice were detected between the experimental and the control groups.

4) Necropsy

No remarkable changes were found in any of the male and female mice.

8. Conclusion

The acute oral toxicity of SAGAN COAT Photocatalyst Coating Solution TPX was tested in male and female mice.

Oral administration of 2,000 mg/kg b.w. of the test sample caused neither death nor abnormalities at necropsy in any of the mice.

Consequently, we concluded that the LD50 value of the test sample was more than 2,000 mg/kg b.w. in male and female mice.

9. Reference

・ OECD Guidelines for the Testing of Chemicals 420 (2001).

Table 1. Body-weight changes (male)

Group	Body weight (g)		
	Pre-administration	7 days	14 days
Experimental group	34.0±1.6 (5)	38.3±2.4 (5)	39.7±2.8 (5)
Control group	33.7±1.7 (5)	38.0±2.9 (5)	39.3±2.3 (5)

The values are mean±SD.
The values in parentheses show the number of animals.

Table 2. Body-weight changes (female)

Group	Body weight (g)		
	Pre-administration	7 days	14 days
Experimental group	25.7±0.7 (5)	29.0±0.7 (5)	30.6±1.0 (5)
Control group	25.5±0.9 (5)	29.2±1.1 (5)	29.7±1.3 (5)

The values are mean±SD.
The values in parentheses show the number of animals.