## **Certificate of Analysis**

## (Deodorant effect)

| 1. Objective | Test for the deodorant effect of TAKEX Clean (45%)   |  |  |  |  |
|--------------|--|--|--|--|--|
| 2. Sample    | <ul><li>(i) TAKEX Clean (45%)</li><li>*Air by itself was used as the control</li></ul>   |  |  |  |  |
| 3. Method    | <ul> <li>A specified concentration of odor gas was injected into a 1500 mL polyethylene bag containing 5 g of the sample, and the gas concentration was measured at a set interval using a gas detector (Gastec Corporation). Also, the polyethylene bag after the test completion was evaluated by sensory observation.</li> <li>A) Name of odor reagent: Ammonia water (29% content as NH<sup>3</sup>, Kanto Kagaku)</li> <li>25% methylamine solution (Kanto Kagaku)</li> </ul> |  |  |  |  |
|              | B) Amount of odor: Ammonia; 75 ppm, methylamine; 115 ppm   |  |  |  |  |
|              | C) Timing of measurement: After 0, 5, and 10 minutes   |  |  |  |  |

4. Results: The result of deodorant test is shown in Table 1, and the time-course of the results is shown in Graph 2.

|  | Table 1 Result of | (ppm)           |       |       |        |                     |
|--|-------------------|-----------------|-------|-------|--------|---------------------|
|  | Type of odor      | Sample          | 0 min | 5 min | 10 min | Sensory evaluation  |
|  | Ammonia           | Control         | 75    | ***   | 70     | Strong ammonia odor |
|  |                   | (i) TAKEX Clean | 75    | 18    | 5      | Alcohol odor only   |
|  | Methylamine       | Control         | 115   | ***   | 120    | Strong amine odor   |
|  |                   | (i) TAKEX Clean | 115   | 4     | 2      | Alcohol odor only   |

\*\*\*: Not measured Limit of detection: 0.5 ppm

\*: Value of the control at 0 min was measured and used as the sample value at 0 min.



Graph 2-1 Ammonia gas

Graph 2-2 Methylamine gas