

Client: C.D. PRODUCTS S.A.

Address: KANNA 2, LOCAL 3, 28400 COLLADO VILLALBA MADRID - SPAIN

Attn.: AUGUSTO TEROL,

Sample Description: MOUTH PIECE FOR ALCOHOL TESTER

Model No.: CDP-25PK

Supplier: C.D. PRODUCTS S.A.

Sample Received

Date:

2012-06-19

Test Period: From 2012-06-19 to 2012-06-26

Test Requested: As specified by client, to test below items as stated in the German Food

& Feed Acts LFGB (§ 30 & 31) and Regulation (EC) No.1935/2004,

1. For material: Plastics

 Overall migration test for compliance with regulation (EU) 10/2011.

2. For material: Plastics

Specific Migration of Heavy Metals ((Ba, Co, Cu, Fe, Li, Mn, Zn) for compliance with regulation (EU) 10/2011

3. For material: Plastics

 Specific Migration of Primary Aromatic Amine for compliance with regulation (EU) 10/2011.

4. For material: Plastic

Remaining Peroxide

5. For material: Polypropylene (PP)

- Total Chromium, Vanadium, Zirconium and Hafnium content

6. Sensory test

With reference to DIN 10955

Test Result: Refer to following page(s)

Conclusion: The submitted sample with test part(s) was found to **comply** with the

respective requirement(s) for the tested item(s) as stated in the German Food & Feed Acts LFGB (§ 30 & 31) and Regulation (EC) No.1935/2004

(Material in contact with food regulation)

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## 1. TESTED SUBJECT DESCRIPTION

| SAMPLE<br>NUMBER | ITEM NAME                            | TESTED MATERIAL DESCRIPTION | РНОТО |
|------------------|--------------------------------------|-----------------------------|-------|
| 001              | MOUTH PIECE<br>FOR ALCOHOL<br>TESTER | Translucent plastic         | 1 1   |



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### 2. TEST RESULT

### 2.1 OVERALL MIGRATION TEST FOR PLASTIC

Test method: As specified in Regulation (EU) No. 10/2011; with reference to EN 1186:part 1, part 2, part 3, part 8, part 9 & part 14:2002.

| CIMILI ANT LICED | TEGT CONDITION   | RESULT [mg/dm²] MAXIMUM |                               |
|------------------|------------------|-------------------------|-------------------------------|
| SIMULANT USED    | TEST CONDITION   | SAMPLE 001              | PERMISSIBLE<br>LIMIT [mg/dm²] |
| 10% Ethanol      | 70°C for 2 hours | < 3.0                   | 10                            |

### Note:

- "°C" denotes degree Celsius
- "mg/dm2" denotes milligram per square decimeter
- "<" denotes less than</p>
- The specification was quoted from regulation (EU) 10/2011.

## 2.2 SPECIFIC MIGRATION OF HEAVY METALS (Ba, Co, Cu, Fe, Li, Mn, Zn) TEST

Test method: As specified in Regulation (EU) No. 10/2011, the sample(s) were migrated with food simulant, followed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) analysis.

Testing condition and simulant: Distilled water at 40°C for 0.5 hours.

| TEST ITEM      | RESULT [mg/kg] SAMPLE 001 | MAXIMUM<br>PERMISSIBLE<br>LIMIT [mg/kg] |
|----------------|---------------------------|-----------------------------------------|
| Barium (Ba)    | < 0.10                    | 1                                       |
| Cobalt (Co)    | < 0.050                   | 0.05                                    |
| Copper (Cu)    | < 0.10                    | 5                                       |
| Iron (Fe)      | < 1.00                    | 48                                      |
| Lithium (Li)   | < 0.10                    | 0.6                                     |
| Manganese (Mn) | < 0.05                    | 0.6                                     |
| Zinc (Zn)      | < 1.00                    | 25                                      |

### Note:

- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than</p>
- The specification was quoted from regulation (EU) 10/2011.

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### 2.3 SPECIFIC MIGRATION OF PRIMARY AROMATIC AMINE TEST

Test method: With reference to EN 1186-1: 2002, followed by Kunststoffe im Lebensmittelvekehr, Book 2, Teil B II, XXI. [Detection limit: 0.01 mg/kg]

Testing condition and simulant: Distilled water at 40°C for 0.5 hours.

| TEST ITEM                           | RESULT [mg/kg] | MAXIMUM<br>PERMISSIBLE         |
|-------------------------------------|----------------|--------------------------------|
| TEST ITEM                           | SAMPLE 001     | LIMIT [mg/kg]                  |
| Migration of Primary Aromatic Amine | < 0.01         | Not Detected<br>(< 0.01 mg/kg) |

### Note:

- "mg/kg" denotes milligram per kilogram foodstuff
- "<" denotes less than</p>
- The specification was quoted from regulation (EU) 10/2011.

### 2.4 REMAINING PEROXIDE TEST

Test method: With reference to 58th Communication on the testing of plastics, Bundesgesundheitsbl. 40 (1997) 412.

| TECT ITEM          | RESULT     | MAXIMUM              |  |
|--------------------|------------|----------------------|--|
| TEST ITEM          | SAMPLE 001 | PERMISSIBLE<br>LIMIT |  |
| Remaining Peroxide | Absent     | Absent               |  |

### Note:

 The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr Part XV and Part VI.

## 2.5 TOTAL CHROMIUM, VANADIUM AND ZIRCONIUM CONTENT TEST

Test method: Microwave digestion, followed by Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) analysis.

| TEST ITEM      | RESULT [mg/kg] SAMPLE 001 | MAXIMUM PERMISSIBLE LIMIT [mg/kg] |
|----------------|---------------------------|-----------------------------------|
| Chromium (Cr)  | < 5.0                     | 10                                |
| Vanadium (V)   | < 5.0                     | 20                                |
| Zirconium (Zr) | < 10.0                    | 100                               |
| Hafnium (Hf)   | < 10.0                    | 100                               |

#### Note:

- "mg/kg" denotes miligram per kilogram
- "<" denotes less than</p>
- The specification was quoted from Recommendation of the BfR "Kunststoffe im Lebensmittelverkehr" Part VII "Polypropylene".

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### 2.6 SENSORY TEST

Test method: With reference to DIN 10955. The submitted sample was treated with distilled water at 40  $^{\circ}$ C for 0.5 hour . After this treatment, treated water was examined by panels with regard to any divergence in smell and taste.

| TEST ITEM         | GRADING RESULT SAMPLE 001 | RECOMMENDED<br>LEVEL |
|-------------------|---------------------------|----------------------|
| Transfer of Taste | 1                         | < 2.5                |
| Transfer of Smell | 1                         | < 2.5                |

### Note:

Explanation for grading are listed as below:

Grading 0: No perceptible taste/smell deviation Grading 1: Just perceptible taste/smell deviation

Grading 2: Weak taste/smell deviation Grading 3: Clear taste/smell deviation Grading 4: Strong taste/smell deviation



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