



Food Ingredients and Packaging Unit

## SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

### MINUTES OF THE 8<sup>th</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 30<sup>th</sup> November 2020 (Webconference)**

**(Agreed on 30 November 2020)**

#### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda, Didima De Groot, Rex FitzGerald, Arno Christian Gutleb, Ursula Gundert-Remy, Jan Mast, Alicja Mortensen, Agnes Oomen, Sabina Passamonti, Aldert Piersma, Veronika Plichta, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen, Matthew Wright (Chair).

■ EFSA:

FIP Unit: Stefania Barmaz, Consuelo Civitella, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi.

SCER Unit: Jose Tarazona

■ Observer:

Ari Karjalainen

#### 1. Welcome and apologies for absence

The chair welcomed the participants.

Apologies were received from Sara Gunnare.

#### 2. Adoption of agenda

The agenda was adopted without changes.

#### 3. Declarations of Interest of Working Groups members



In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### 4. Scientific topic for discussion

##### 4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)

The working group discussed the assessment of scientific evidences retrieved in the literature search and considered as relevant and reliable for the assessment of E171.

#### 5. Any Other Business

None.

#### 6. Agreement of the minutes of the 8<sup>th</sup> Working Group meeting held on 30.11.2020

The minutes were agreed.

---

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



Food Ingredients and Packaging Unit

# SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

## MINUTES OF THE 7<sup>th</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 3<sup>rd</sup> and 4<sup>th</sup> November 2020 (Webconference)**

**(Agreed on 4 November 2020)**

### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda, Didima De Groot, Rex FitzGerald, Arno Christian Gutleb, Ursula Gundert-Remy, Jan Mast, Alicja Mortensen, Agnes Oomen, Sabina Passamonti, Aldert Piersma, Veronika Plichta, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen, Matthew Wright (Chair).

■ EFSA:

FIP Unit: Stefania Barmaz, Consuelo Civitella, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi.

SCER Unit: Jose Tarazona

### 1. Welcome and apologies for absence

The chair welcomed the participants.

Apologies were received from Sara Gunnare.

### 2. Adoption of agenda

The agenda was adopted without changes.

### 3. Declarations of Interest of Working Groups members



In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### 4. Scientific topic for discussion

##### 4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)

The working group discussed the initial appraisal of the reliability of some of the papers retrieved from the literature search and considered to be relevant for the assessment of the toxicity of this kind of material that contains a fraction of nanoparticles. The specific criteria used for appraising the reliability of the studies were discussed and agreed among the WG members for their consistent implementation across the body of evidence that will be reviewed under the current mandate.

#### 5. Any Other Business

None.

#### 6. Agreement of the minutes of the 7<sup>th</sup> Working Group meeting held on 3 - 4.11.2020

The minutes were agreed.

---

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



# SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

## MINUTES OF THE 6<sup>th</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 19 October 2020 (Webconference)**

**(Agreed on 19 October 2020)**

### Participants

■ Working Group Members:

Emanuela Corsini, Didima De Groot, Rex FitzGerald, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen and Matthew Wright (Chair).

■ EFSA:

FIP Unit: Stefania Barmaz, Consuelo Civitella, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi.

### 1. Welcome and apologies for absence

The chair welcomed the participants.

Apologies were received from Aldert Piersma and Alicja Mortensen.

### 2. Adoption of agenda

The agenda was adopted without changes.

### 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### **4. Scientific topic for discussion**

##### **4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)**

The working group discussed the final interim report of the EOGRT study and complementary reports of the study and a draft assessment was prepared. The WG considered that some additional clarifications should be requested in addition to those already asked for.

#### **5. Any Other Business**

None.

#### **6. Agreement of the minutes of the 6<sup>th</sup> Working Group meeting held on 19.10.2020**

The minutes were agreed.



Food Ingredients and Packaging Unit

## SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

### MINUTES OF THE 5<sup>th</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 01 – 02 October 2020 (Webconference)**

**(Agreed on 02 October 2020)**

#### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda,<sup>1</sup> Didima De Groot, Rex FitzGerald, Arno Christian Gutleb,<sup>1</sup> Ursula Gundert-Remy,<sup>1</sup> Sara Gunnare,<sup>1</sup> Jan Mast,<sup>1</sup> Alicja Mortensen,<sup>2</sup> Agnes Oomen,<sup>1</sup> Sabina Passamonti,<sup>1</sup> Aldert Piersma, Veronika Plichta,<sup>1</sup> Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen, Matthew Wright (Chair).

■ EFSA:

FIP Unit: Stefania Barmaz, Maria Carfi, Consuelo Civitella, Esraa Elewa, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi, Alexandra Tard.

SCER Unit: Jose Tarazona.

■ Observer

ECHA: Ari Karjalainen

#### 1. Welcome and apologies for absence

The Chair welcomed the participants.

#### 2. Adoption of agenda

The agenda was adopted without changes.

#### 3. Declarations of Interest of Working Groups members

---

<sup>1</sup> Participated on 1.10.2020

<sup>2</sup> Participated on 2.10.2020



In accordance with EFSA's Policy on Independence<sup>3</sup> and the Decision of the Executive Director on Competing Interest Management<sup>4</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### 4. Scientific topic for discussion

##### 4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)

The working group agreed to use a tiered approach to evaluate the impact of the relevant biological and toxicological in vivo studies on the assessment of titanium dioxide (E171) that will take into account specific elements to be considered for the testing of materials that contain a percentage of nanoparticles.

Information related to the exposure assessment of the food additive E 171 was presented to the working group. The working group also evaluated the EOGRT study and complementary reports submitted to EFSA in response to European Commission follow-up call on titanium dioxide (E 171). Tasks were distributed to the experts

#### 5. Any Other Business

A short presentation by a working group member on a recent publication<sup>5</sup> took place.

#### 6. Agreement of the minutes of the 5<sup>th</sup> Working Group meeting held on 1-2.10.2020

The minutes were agreed.

<sup>3</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>4</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)

<sup>5</sup> Brans W, Peters RJB, Braakhuis HM, Maślankiewicz L and Oomen AG, 2020. Possible effects of titanium dioxide particles on human liver, intestinal tissue, spleen and kidney after oral exposure. *Nanotoxicology*, 14, 7, 985-1007.





Food Ingredients and Packaging Unit

## SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

### MINUTES OF THE 4<sup>th</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 28 September 2020 (Webconference)**

**(Agreed on 28 September 2020)**

#### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda, Didima De Groot, Rex FitzGerald, Arno Christian Gutleb, Ursula Gundert-Remy, Sara Gunnare, Jan Mast, Alicja Mortensen, Agnes Oomen, Sabina Passamonti, Aldert Piersma, Veronika Plichta, Beate Ulbrich, Dina Waalkens-Berendsen, Matthew Wright (Chair).

■ EFSA:

FIP Unit: Consuelo Civitella, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi.

■ SCER Unit: Jose Tarazona.

#### 1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Henk Van Loveren.

#### 2. Adoption of agenda

The agenda was adopted without changes.

#### 3. Declarations of Interest of Working Groups members



In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### **4. Notes from Working Group meeting on 4.09.2020 and 17.09.2020**

The notes and the action points were checked

#### **5. Scientific topic for discussion**

##### **5.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)**

The working group discussed the approach to be followed for the appraisal of the reliability of toxicity studies retrieved by a literature search.

#### **6. Any Other Business**

None.

#### **7. Agreement of the minutes of the 4<sup>th</sup> Working Group meeting held on 28.09.2020**

The minutes were agreed.

---

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



Food Ingredients and Packaging Unit

## SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

### MINUTES OF THE 3<sup>rd</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 17 September 2020 (Webconference)**

**(Agreed on 17 September 2020)**

#### Participants

■ Working Group Members:

Emanuela Corsini, Didima De Groot, Rex FitzGerald, Aldert Piersma, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen and Matthew Wright (Chair).

■ EFSA:

FIP Unit: Consuelo Civitella, Galvin Eyong, Ana Maria Rincon, Camilla Smeraldi.

#### 1. Welcome and apologies for absence

No apologies.

#### 2. Adoption of agenda

The agenda was adopted without changes.

#### 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



#### **4. Scientific topic for discussion**

##### **4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)**

The working group discussed the final interim report of the EOGRT study and complementary reports of the study. The WG considered that additional clarifications should be requested.

#### **5. Any Other Business**

None.

#### **6. Agreement of the minutes of the 3<sup>rd</sup> Working Group meeting held on 17.09.2020**

The minutes were agreed.



# SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

## MINUTES OF THE 2<sup>nd</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 04 September 2020 (Webconference)**

**(Agreed on 04 September 2020)**

### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda, Didima De Groot, Rex FitzGerald, Arno Christian Gutleb, Ursula Gundert-Remy, Sara Gunnare, Jan Mast, Alicja Mortensen, Agnes Oomen, Sabina Passamonti, Aldert Piersma, Veronika Plichta, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen, Mathew Wright (Chair).

■ EFSA:

FIP Unit: Ana Campos, Esraa Elewa, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi.

SCER Unit: Jose Tarazona.

### 1. Welcome and apologies for absence

The Chair welcomed the participants.

### 2. Adoption of agenda

The agenda was adopted without changes.

### 3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)



Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### **4. Scientific topic for discussion**

##### **4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)**

Feedback on the appraisal of the relevance of toxicity studies retrieved in the literature search was presented. The Working Group discussed the criteria be used for the appraisal of the reliability of the toxicity studies. The approach was discussed, and tasks were distributed to the experts.

#### **5. Any Other Business**

The planning for the next working group meetings was discussed.

#### **6. Agreement of the minutes of the 2<sup>nd</sup> Working Group meeting held on 04.09.2020**

The minutes were agreed.



# SCIENTIFIC PANEL ON FOOD ADDITIVES AND FLAVOURINGS

## MINUTES OF THE 1<sup>st</sup> MEETING OF THE WORKING GROUP ON TITANIUM DIOXIDE (E 171) AS A FOOD ADDITIVE

**Held on 28 July 2020 (Webconference)**

**(Agreed on 28 July 2020)**

### Participants

■ Working Group Members:

Emanuela Corsini, Francesco Cubadda, Didima De Groot, Rex FitzGerald, Arno Christian Gutleb, Ursula Gundert-Remy, Sara Gunnare, Alicja Mortensen, Agnes Oomen, Sabina Passamonti, Aldert Piersma, Veronika Plichta, Beate Ulbrich, Henk Van Loveren, Dina Waalkens-Berendsen, Mathew Wright (Chair).

■ EFSA:

FIP Unit: Ana Campos, Maria Carfi, Esraa Elewa, Galvin Eyong, Alessandra Giarola, Ana Maria Rincon, Camilla Smeraldi, Giorgia Vianello.

SCER Unit: Maria Chiara Astuto, Jose Tarazona.

■ Observer:

Ari Karjalainen

### 1. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Jan Mast.

### 2. Adoption of agenda

The agenda was adopted without changes.

### 3. Declarations of Interest of Working Groups members



In accordance with EFSA's Policy on Independence<sup>1</sup> and the Decision of the Executive Director on Competing Interest Management<sup>2</sup>, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

#### 4. Scientific topic for discussion

##### 4.1 Assessment of the safety of titanium dioxide (E 171) (EFSA-Q-2020-00262)

The mandate from the European Commission, the advice received from the EFSA ccWorking Group Nanotechnology for the assessment of titanium dioxide (E171), the approach that was followed for the literature search and the available toxicological database were presented to the Working Group. Further, the Working Group discussed the approaches that could be used for the relevance of the toxicity studies. An approach was agreed, and tasks were distributed to the experts.

#### 5. Any Other Business

A short presentation on the organisation of the working documents was introduced.

#### 6. Agreement of the minutes of the 1<sup>st</sup> Working Group meeting held on 28.07.2020

The minutes were agreed.

---

<sup>1</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/policy\\_independence.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf)

<sup>2</sup> [http://www.efsa.europa.eu/sites/default/files/corporate\\_publications/files/competing\\_interest\\_management\\_17.pdf](http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf)