

BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

General

Plastics which are used to make articles or packaging materials which come into contact with food or must satisfy a series of requirements relating to health hazards arising from any contamination of the food by constituents of the plastics.

There are various regulations worldwide applicable for articles of daily use or their components – like pigments – or both.

In the US this is regulated by CFR title 21 – Food and Drugs part 170 – 189.

China has published the standard GB 9685-2016 to regulate the use of additives in packaging materials for food.

In the EU there are three important regulations to be observed.

- The so called “framework regulation” 1935/2004
- The regulation 2023/2006 on “good manufacturing practice (GMP)”
- Regulation 10/2011 on “plastic materials and articles intended to come into contact with food”

The framework regulation 1935/2004 requires that those materials do not endanger human health or that they do not transfer constituents to food which could deteriorate the organoleptic characteristics thereof.

Regulations governing colorants

In various European countries, the use of inorganic pigments is governed by threshold values for the soluble content of certain elements.

In Japan, absolute values are specified.

Colorants which satisfy these requirements may be used to color plastics for food-contact applications. In France, Japan and the USA, it must also be borne in mind that the chemical substance forming the basis of the colorant must be included in a positive list or must be proven not to migrate into foods. The legislation and regulations valid in the individual countries are summarized in Table 1.

Part 2 summarizes the inorganic pigments of the LANXESS product lines and their compliance with the individual legal requirements of the countries specified.

Note: The information given is based on available knowledge and experience (05-2017).

BAYFERROX[®] and COLORTHERM[®] pigments for coloring food packaging and other articles for food-contact applications

Table 1:
National regulations on the purity requirements for pigments used to color products for food-contact applications

Regulations in the Region EMEA (Europe, Middle East and Africa)

| | |
|--------------------------|---|
| Council of Europe | <p>Resolution AP(89)1</p> <p>Resolution of the Council of Europe on the use of Colourants in Plastic Materials coming into Contact with Food</p> |
| European Union | <p>Regulation 1935/2004 on plastic materials and articles intended to come into contact with food</p> <p>In Article 3 general principles on safety are defined</p> <ul style="list-style-type: none">- No hazard to human health- No unacceptable change in the composition of the food- No deterioration of the organoleptic characteristics |
| European Union | <p>Regulation 10/2011 on plastic materials and articles intended to come into contact with food last amended by commission regulation (EU) 2017/752 (this regulation replaces the regulation 2002/72/EC also known as "EU Plastics Directive").</p> <p>In recital (10) it is explicitly pointed out that no rules for colorants in plastics are set out on EU level and in the same paragraph it is said that national rules should be applied.</p> <p>Such a regulation is resolution AP(89)1 of the Council of Europe (see above).</p> <p>However colorants have to be subject to a risk assessment as given in article 19 of regulation 10/2011.</p> <p>Such an assessment is performed according to commonly accepted state of knowledge (see also JRC Technical Reports and Guidelines).</p> <p>As a result it can be noted that the thresholds of the metal concentrations stated in Annex II if contained as impurities beyond those limits cannot be expected to be exceeded in any application given the concentrations typically used and the fact the pigment is incorporated in a binder or plastic in any properly made article.</p> <p>If you need a declaration about food contact with our products please ask your local contact or send an email to: ipg.product-information@lanxess.com</p> |

BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

Table 1 (continuation):

National regulations on the purity requirements for pigments used to color products for food-contact applications

Regulations in the Region EMEA (Europe, Middle East and Africa)

Belgium

Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen

The limit values defined by this royal decree are similar to those of AP(89)1.

France

Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.

Colorants not only have to comply with the purity requirements of resolution AP (89)1 (see above) but they also must be included in to the French positive list.

Germany

Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015

This recommendation proposes guide values for pigments which are used in consumer goods made of plastics. Those limits are the same as in AP(89)1.

Germany

Empfehlung XXXVI/2 „Papiere, Kartons und Pappen für Backzwecke“ des Bundesinstituts für Risikobewertung (BfR) vom 01.07.2016

This recommendation is about paper and paper board for baking purposes.

Only iron oxides with high purity as defined in European regulation 231/2012 comply with these requirements (chemical requirements of E172 are met).

Italy

DECRETO 11 novembre 2013, n. 140 Regolamento recante aggiornamento al decreto del Ministro della sanità 21 marzo 1973 recante: "Disciplina igienica degli imballaggi, recipienti, utensili destinati a venire a contatto con le sostanze alimentari o con sostanze d'uso personale" limitatamente agli acciai inossidabili.

This ministerial decree has almost the same limits as AP(89)1.

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Table 1 (continuation):

National regulations on the purity requirements for pigments used to color products for food-contact applications

Regulations in the Region EMEA (Europe, Middle East and Africa)

| | |
|------------------------|---|
| The Netherlands | <p>Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014.</p> <p>In addition to the allowed maximum share of soluble heavy metals this regulation on packaging and consumer goods also defines threshold limits for the migration of colored articles.</p> |
| Spain | <p>Real Decreto 847/2011, de 17 de junio, por el que se establece la lista positiva de sustancias permitidas para la fabricación de materiales poliméricos destinados a entrar en contacto con los alimentos.</p> <p>The royal decree is aligned with the European Resolution AP(89)1.</p> |
| Switzerland | <p>Verordnung des EDI über Bedarfsgegenstände (817.023.21) (aktuelle Fassung vom 01.04.2013) und Anhang 6 mit Listen der zugelassenen Stoffe für die Herstellung von Verpackungstinten und Anforderungen an diese Stoffe</p> <p>This Swiss regulation is also similar to AP(89)1 and has the same limits. Annex 6 lists evaluated and non-evaluated pigments approved for packaging inks.</p> |
| United Kingdom | <p>Plastics for food contact applications, a code of practice for safety in use. BPF (British Plastics Federation) in connection with BIBRA, revised edition 1986.</p> <p>The UK has adopted the European Regulations 10/2011 (see above).</p> |

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Regulations in the Region APAC (Asia-Pacific)

Australia

Australian Standard AS 2070-1999:
Plastics materials for food contact use

This standard requires for colourants to comply with European Regulation AP(89) 1.

China

GB 9685-2016:
Hygienic Standard for Use of Additives in Food Containers and Packaging Materials

This is the most important food safety standard for food contact additive in China. It includes 959 permitted food contact additives (including monomers). The standard was issued by the Ministry of Health in October 2016 and comes into force on 19th October 2017.

Japan

Since 1977, Japan has maintained a positive list for colorants which can be used in plastics for food contact applications. It is issued by the Japan Hygienic Olefin and Styrene Plastics Association (JHOSPA) and, strictly speaking therefore, is not a legal requirement.

A further prerequisite for the use of colorants is that they contain no more than 100 ppm lead, 50 ppm arsenic, 50 ppm mercury and 100 ppm cadmium. These requirements are satisfied with few exceptions by our inorganic pigments (see tables in part 2).

BAYFERROX[®] and COLORTHERM[®] pigments for coloring food packaging and other articles for food-contact applications

Table 1 (continuation):

National regulations on the purity requirements for pigments used to color products for food-contact applications

Regulations in the Region Americas (NAFTA & LATAM)

Brazil

Atende a Resolução RDC nº 52 de 26/11/2010 para coloração de utensílios e equipamentos destinados a entrar em contato com alimentos e bebidas.

In 2010 this regulation was enacted by the national authority in compliance with MERCOSUR regulation N° 15/10 for health surveillance to regulate the use of colorants in plastic articles intended to come into contact with food.

MERCOSUR

GMC/RES. N° 15/10

Reglamento técnico MERCOSUR sobre colorantes en envases y equipamientos plásticos destinados a estar en contacto con alimentos

This resolution was adopted by the Grupo Mercado Común (GMC) in 2010. The requirements of this regulation are similar to AP(89)1.

USA

The USA has regulated the use of colorants in food contact in the Code of Federal Regulations 21 ("CFR 21").

In paragraph 178.3297 (Colorants for Polymers) iron oxides and chromium oxides are listed for the intended use. In some cases restrictions have to be observed.

Some products respectively substances are not mentioned in that paragraph. For those we have opinion letters confirming the compliances of the pigments if only used up to 2 % in all polymers coming into contact with food.

(see tables in part 2)

Inorganic Pigments

**BAYFERROX® and COLORTHERM® pigments for coloring
food packaging and other articles for food-contact applications**

Part 2

Summary of Compliance with Statutory Regulations

Inorganic Pigments

BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Iron oxides | | | | |
|-------------|---|--|---|------------------|--------------------------------|---|
| | | Red Pigments | | | | |
| | | BAYFERROX | | | COLORTHERM | |
| | | 105M 110M 120M 120NM 130M 130BM 140M 160M 180M | 110 120 120N 130 130A 130B 140 160 180 180NM 222 222FM 225 630 | 4125/1 4130/1 | 4100/402 4110/402 4120/1 | Red 110M Red 120M Red 120NM Red 130M Red 140M Red 160M Red 180M |
| EMEA | Europe: Resolution AP(89)1 | X | X | X | X | X |
| | Europe: Regulation 1935/2004 | X | X | X | X | X |
| | Europe: Regulation 10/2011 | X ¹ | X ¹ | X ¹ | X | X ¹ |
| | Belgium: Royal Decree | X | X | X | X | X |
| | France: Circulaire 176 | X | X | X | X | X |
| | Germany: BfR Recommendation IX | X | X | X | X | X |
| | Germany: BfR Recommendation XXXVI/2 | - | - | - | - | - |
| | Italy: Ministerial decree | X | X | X | X | X |
| | The Netherlands: Regulation on packaging and consumer goods | X | X | X | X | X |
| | Spain: Royal decree 847/2011 | X | X | X | X | X |
| | Switzerland: Regulation 817.023.21 | II, A | II, A | II, A | II, A | II, A |
| | United Kingdom: European regulation 10/2011 | X ¹ | X ¹ | X ¹ | X | X ¹ |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

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BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Iron oxides | | | | |
|-------|---|--|---|------------------|--------------------------------|---|
| | | Red Pigments | | | | |
| | | BAYFERROX | | | | COLORTHERM |
| | | 105M 110M 120NM 120M 130BM 130M 140M 160M 180M | 110 120 120N 130 130A 130B 140 160 180 180NM 222 222FM 225630 | 4125/1 4130/1 | 4100/402 4110/402 4120/1 | Red 110M Red 120NM Red 120M Red 130M Red 140M Red 160M Red 180M |
| APAC | Australia: AS 2070-1999 | X | X | X | X | X |
| | China: GB 9685-2016 | X | X | X | X | X |
| | Japan: JHOSPA | X | X | X | - | X |
| LATAM | Brazil: RDC 52/2010 | X | X | X | X | X |
| | MERCOSUR: GMC RES N° 15/10 | X | X | X | X | X |
| USA | USA: FDA CFR 21 §178.3297 | X | X | X | X | X |
| | USA: Opinion letter based on FDA CFR 21 §178.3297 | na | na | na | na | na |

| | | |
|---|---------------------|--|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | | IV, B: Annex 6, List IV, Part B: non-evaluated additives |
| X [†] More information about food contact available at: jpg.product-information@lanxess.com | | |

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| | | Iron oxides | | | | | |
|--|--|---|----------------|----------------|----------------|---------------------------|----------------------------------|
| | | Black Pigments | | | | Brown Pigments | |
| | | BAYFERROX | | | COLORTHERM | BAYFERROX | |
| | | 306 316 340 330B 318NM 318 318M 318MB 320 330 360 | 345 | 4330 | Black 318M | 600 610 610N 640 | 655 660 660N 663 686 |
| EMEA | Europe: Resolution AP(89)1 | X | X | - | X | X | X |
| | Europe: Regulation 1935/2004 | X | X | - | X | X | X |
| | Europe: Regulation 10/2011 | X ¹ | X ¹ | - | X ¹ | X ¹ | X ¹ |
| | Belgium: Royal Decree | X | X | - | X | X | X |
| | France: Circulaire 176 | X | X | - | X | X | X |
| | Germany: BfR Recommendation IX | X | X | - | X | X | X |
| | Germany: BfR Recommendation XXXVI/2 | - | - | - | - | - | - |
| | Italy: Ministerial decree | X | X | - | X | X | X |
| | The Netherlands: Regulation on packaging and consumer goods | X | X | - | X | X | X |
| | Spain: Royal decree 847/2011 | X | X | - | X | X | X |
| | Switzerland: Regulation 817.023.21 | IV, B | IV, B | - | IV, B | - | - |
| United Kingdom: European regulation 10/2011 | X ¹ | X | - | X ¹ | X ¹ | X ¹ | |

| | | |
|---|--|---------------------------------------|
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| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

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BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Iron oxides | | | | | |
|-------|--|---|-----|------|------------|---------------------------|----------------------------------|
| | | Black Pigments | | | | Brown Pigments | |
| | | BAYFERROX | | | COLORTHERM | BAYFERROX | |
| | | 306 316 318NM 318 318M 318MB 320 330 330B 340 360 | 345 | 4330 | Black 318M | 600 610 610N 640 | 655 660 660N 663 686 |
| APAC | Australia: AS 2070-1999 | X | X | - | X | X | X |
| | China: GB 9685-2016 | X | X | - | X | X | X |
| | Japan: JHOSPA | X | - | X | X | X | X |
| LATAM | Brazil: RDC 52/2010 | X | X | - | X | X | X |
| | MERCOSUR: GMC RES N° 15/10 | X | X | - | X | X | X |
| USA | USA: FDA CFR 21 §178.3297 | X | X | X | X | X | X |
| | USA: Opinion letter based on FDA CFR 21 §178.3297 | na | na | na | na | na | na |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
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| | | Iron oxides | | | | |
|-------------|---|-------------------------------------|--|--|------------|------------------------|
| | | Yellow Pigments | | | | |
| | | BAYFERROX | | | COLORTHERM | |
| | | 415 420 1420 1420M 3420 | 910 915 920 930 943 3905 3910 3910LV 3920 960 | 4905FM 4910 4910FM 4920FM 4920LO | 4960LO | Yellow 10 Yellow 20 |
| EMEA | Europe: Resolution AP(89)1 | X | X | | - | X |
| | Europe: Regulation 1935/2004 | X | X | X | - | X |
| | Europe: Regulation 10/2011 | X ¹ | X ¹ | | - | X ¹ |
| | Belgium: Royal Decree | X | X | X | - | X |
| | France: Circulaire 176 | X | X | X | - | X |
| | Germany: BfR Recommendation IX | X | X | X | - | X |
| | Germany: BfR Recommendation XXXVI/2 | - | - | - | - | - |
| | Italy: Ministerial decree | X | X | X | - | X |
| | The Netherlands: Regulation on packaging and consumer goods | X | X | X | - | X |
| | Spain: Royal decree 847/2011 | X | X | X | - | X |
| | Switzerland: Regulation 817.023.21 | II, A | II, A | X | - | II, A |
| | United Kingdom: European regulation 10/2011 | X ¹ | X ¹ | X | - | X ¹ |

| | | |
|---|--|---------------------------------------|
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| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

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BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Iron oxides | | | | |
|-------|---|-------------------------------------|--|--|------------|------------------------|
| | | Yellow Pigments | | | | |
| | | BAYFERROX | | | COLORTHERM | |
| | | 415 420 1420 1420M 3420 | 910 915 920 930 943 3905 3910 3910LV 3920 960 | 4905FM 4910 4910FM 4920FM 4920LO | 4960LO | Yellow 10 Yellow 20 |
| APAC | Australia AS 2070-1999 | X | X | X | - | X |
| | China GB 9685-2016 | X | X | X | - | X |
| | Japan JHOSPA | X | X | X | X | X |
| LATAM | Brazil RDC 52/2010 | X | X | X | - | X |
| | MERCOSUR GMC RES N° 15/10 | X | X | X | - | X |
| USA | USA FDA CFR 21 §178.3297 | X | X | X | - | X |
| | USA Opinion letter based on FDA CFR 21 §178.3297 | na | na | na | na | na |

| | | |
|---|---------------------|--|
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| | | Z-grades | | | |
|-------------|--|----------------|----------------|----------------|----------------|
| | | BAYFERROX | | | COLORTHERM |
| | | Black | Yellow | | Green |
| | | 360Z | 905Z | 920Z | Green GN-Z |
| EMEA | Europe: Resolution AP(89)1 | X | X | X | X |
| | Europe: Regulation 1935/2004 | X | X | X | X |
| | Europe: Regulation 10/2011 | X ¹ | X ¹ | X ¹ | X ¹ |
| | Belgium: Royal Decree | X | X | X | X |
| | France Circulaire 176 | X | X | X | X |
| | Germany: BfR Recommendation IX | X | X | X | X |
| | Germany: BfR Recommendation XXXVI/2 | X | X | X | - |
| | Italy: Ministerial decree | X | X | X | X |
| | The Netherlands: Regulation on packaging and consumer goods | X | X | X | X |
| | Spain: Royal decree 847/2011 | X | X | X | X |
| | Switzerland: Regulation 817.023.21 | IV, B | II, A | II, A | II, A |
| | United Kingdom: European regulation 10/2011 | X ¹ | X ¹ | X ¹ | X ¹ |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II,A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: ipg.product-information@lanxess.com | | |

Inorganic Pigments

BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Z-grades | | | |
|-------|---|-----------|--------|------|------------|
| | | BAYFERROX | | | COLORTHERM |
| | | Black | Yellow | | Green |
| | | 360Z | 905Z | 920Z | Green GN-Z |
| APAC | Australia: AS 2070-1999 | X | X | X | X |
| | China: GB 9685-2016 | X | X | X | X |
| | Japan: JHOSPA | X | X | X | X |
| LATAM | Brazil: RDC 52/2010 | X | X | X | X |
| | MERCOSUR: GMC RES N° 15/10 | X | X | X | X |
| USA | USA: FDA CFR 21 §178.3297 | X | X | X | X |
| | USA: Opinion letter based on FDA CFR 21 §178.3297 | na | na | na | na |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
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BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Other Pigments | | | |
|-------------|---|----------------|--------------------------|------------------------|----------------|
| | | Zinc ferrites | | Manganese ferrites | |
| | | BAYFERROX | COLORTHERM | BAYFERROX & COLORTHERM | |
| | | 950 (yellow) | Yellow 30 Yellow 3950 | 303T (black) | 645T (brown) |
| EMEA | Europe: Resolution AP(89)1 | X | X | X | X |
| | Europe: Regulation 1935/2004 | X | X | X | X |
| | Europe: Regulation 10/2011 | X ¹ | X ¹ | X ¹ | X ¹ |
| | Belgium: Royal Decree | X | X | X | X |
| | France: Circulaire 176 | X | X | X | X |
| | Germany: BfR Recommendation IX | X | X | X | X |
| | Germany: BfR Recommendation XXXVI/2 | - | - | - | - |
| | Italy Ministerial decree | X | X | X | X |
| | The Netherlands Regulation on packaging and consumer goods | X | X | X | X |
| | Spain Royal decree 847/2011 | X | X | X | X |
| | Switzerland Regulation 817.023.21 | - | - | - | - |
| | United Kingdom European regulation 10/2011 | X ¹ | X ¹ | X ¹ | X ¹ |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

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BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| Other Pigments | | | | | |
|----------------|---|----------------|--------------------------|------------------------|----------------|
| | | Zinc ferrites | | Manganese ferrites | |
| | | BAYFERROX | COLORTHERM | BAYFERROX & COLORTHERM | |
| | | 950 (yellow) | Yellow 30 Yellow 3950 | 303T (black) | 645T (brown) |
| APAC | Australia: AS 2070-1999 | X | X | - | - |
| | China: GB 9685-2016 | X | X | - | - |
| | Japan: JHOSPA | X | X | X | X |
| LATAM | Brazil: RDC 52/2010 | X | X | - | - |
| | MERCOSUR: GMC RES N° 15/10 | X | X | - | - |
| USA | USA: FDA CFR 21 §178.3297 | na | na | na | na |
| | USA: Opinion letter based on FDA CFR 21 §178.3297 | X ¹ | X ¹ | X ¹ | X ¹ |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
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| | | Chrome oxides |
|------|---|------------------------------------|
| | | COLORTHERM |
| | | Green GN Green GN-M Green GX |
| EMEA | Europe: Resolution AP(89)1 | X |
| | Europe: Regulation 1935/2004 | X |
| | Europe: Regulation 10/2011 | X ¹ |
| | Belgium: Royal Decree | X |
| | France: Circulaire 176 | X |
| | Germany: BfR Recommendation IX | X |
| | Germany: BfR Recommendation XXXVI/2 | - |
| | Italy: Ministerial decree | X |
| | The Netherlands: Regulation on packaging and consumer goods | X |
| | Spain: Royal decree 847/2011 | X |
| | Switzerland: Regulation 817.023.21 | II, A |
| | United Kingdom: European regulation 10/2011 | X ¹ |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

Inorganic Pigments

BAYFERROX® and COLORTHERM® pigments for coloring food packaging and other articles for food-contact applications

| | | Chrome oxides |
|-------|---|------------------------------------|
| | | COLORTHERM |
| | | Green GN Green GN-M Green GX |
| APAC | Australia: AS 2070-1999 | X |
| | China: GB 9685-2016 | X |
| | Japan: JHOSPA | X |
| LATAM | Brazil: RDC 52/2010 | X |
| | MERCOSUR: GMC RES N° 15/10 | X |
| USA | USA: FDA CFR 21 §178.3297 | X |
| | USA: Opinion letter based on FDA CFR 21 §178.3297 | na |

| | | |
|---|--|---------------------------------------|
| X : meets the requirements | na : not applicable | - : does not fulfill the requirements |
| II, A: Annex 6, List II, Part A , evaluated pigments | IV, B: Annex 6, List IV, Part B: non-evaluated additives | |
| X ¹ More information about food contact available at: jpg.product-information@lanxess.com | | |

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