Product Information

Bayferrox® 318

Description

Type	Black pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide Fe_3O_4
Colour Index	Pigment black 11 (77499)
CAS-No.	1317-61-9
REACH registration no.	01-2119457646-28-0000

Specified Color Data

Colour values and tinting strength			
Standard	Bayferrox 318		
Year	2015		
Binder: Test paste based on a non drying alkyd resin	**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
	min	**max**	
Δ a*	-0.7	0.7	
Δ b*	-0.9	0.9	
Δ E^*_{ab}		1.0	
Binder: Barytes Relative tinting strength [%]	95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		1.0	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.1	DIN EN ISO 787-7:2009
pH value	4.0	8.0	DIN EN ISO 787-9:1995

Edition: 2015-11-09 (Release 2.1)
Previous Edition: 2015-02-27 (Release 1.16)

Bayferrox® 318

Informative Technical Data (guide values)

					Test method
Fe_3O_4 content [%] [53]	>		96.5		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [5]	<		5.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		2.5		DIN EN ISO 787-2:1995
Particle shape			spherical		Electron micrographs
Predominant particle size [µm]	~		0.2		Electron micrographs
Oil absorption [g/100 g]	~		21		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.8	-	1.2	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.6		DIN EN ISO 787-10:1995

[5] In iron oxide black pigments, a chemical transformation (oxidation) is also recorded when determing the loss on ignition.

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2015-11-09 (Release 2.1)
Previous Edition: 2015-02-27 (Release 1.16)

Bayferrox® 318

Packaging

The product is available in sacks or bulk bags. For further information please ask your local contact or send an enquiry by e-mail to mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	When storing large quantities of pigments, temperatures above 80 °C must be avoided as an alteration (oxidation) of the pigment may be caused by heat.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.de.

Edition: 2015-11-09 (Release 2.1)
Previous Edition: 2015-02-27 (Release 1.16)

Bayferrox® 318

Information concerning food contact regulations (not specified)

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark:

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.01.2010
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
United Kingdom	Plastics for food contact applications, a code of practice for safety in use: BPF in connection with BIBRA, revised edition 1986. Like BfR Recommendation IX, this code does not have the force of law. However, processors view it as binding.
Italy	DECRETO 11 novembre 2013, n. 140 Regolamento recante aggiornamento al decreto del Ministro della sanita' 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.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
Brazil	In compliance with Resolução No. 52 of Nov.26.2010 for coloring utensils and equipment intended to come into contact with food and beverages.
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements * (JHOSPA = Japan Hygienic Olefin and Styrene Plastics Association)
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2015-11-09 (Release 2.1)
Previous Edition: 2015-02-27 (Release 1.16)

Bayferrox® 318

Status of Registration (not specified)

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2015-11-09 (Release 2.1)
Previous Edition: 2015-02-27 (Release 1.16)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Technical Data Sheet

Bayferrox® 330

Description

Type	Black pigment
Field of application	Building industry
Delivery form	Powder
Chemical class	Synthetic iron oxide Fe_3O_4
Colour Index	Pigment black 11 (77499)
CAS-No.	1317-61-9
REACH registration no.	01-2119457646-28-0000

Specified Color Data

Colour values and tinting strength			
Standard	Bayferrox 330		
Year	2015		
Binder: Test paste based on a non drying alkyd resin	**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
	min	**max**	
Δ a*	-0.7	0.7	
Δ b*	-0.9	0.9	
ΔE^*_{ab}		1.0	
Binder: Barytes Relative tinting strength [%]	95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		1.75	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.1	DIN EN ISO 787-7:2009
pH value	4.0	8.0	DIN EN ISO 787-9:1995

Edition: 2018-07-06 (Release 1.22)
Previous Edition: 2018-07-06 (Release 1.21)

Bayferrox® 330

Informative Technical Data (guide values)

					Test method
Fe_3O_4 content [%] [53]	>		95.8		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [5]	<		5.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		4.0		DIN EN ISO 787-2:1995
Particle shape			spherical		Electron micrographs
Predominant particle size [µm]	~		0.15		Electron micrographs
Oil absorption [g/100 g]	~		21		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.8	-	1.2	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.6		DIN EN ISO 787-10:1995

[5] In iron oxide black pigments, a chemical transformation (oxidation) is also recorded when determing the loss on ignition.

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2018-07-06 (Release 1.22)
Previous Edition: 2018-07-06 (Release 1.21)

Bayferrox® 330

Packaging

Grades are delivered in different packaging materials. Please ask your local contact about the packaging for the grade in question or send an enquiry mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	During storage, temperatures above 80 ° C are to be avoided since irreversible changes in the color of the pigment can occur.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.com.

Edition: 2018-07-06 (Release 1.22)
Previous Edition: 2018-07-06 (Release 1.21)

Bayferrox® 330

Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2018-07-06 (Release 1.22)
Previous Edition: 2018-07-06 (Release 1.21)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Technical Data Sheet

Bayferrox® 610

Description

Type	Brown pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide (mixture)
Colour Index	Pigment red 101 (77491) / Pigment black 11 (77499) / Pigment yellow 42 (77492)
CAS-No.	1309-37-1 / 1317-61-9 / 51274-00-1
REACH	All components are registered

Specified Color Data

Colour values and tinting strength					
Standard	Bayferrox 610				
Year	2000				
Binder: Test paste based on a non drying alkyd resin	**Full shade**		**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
Δ L*	-0.5	0.5			
Δ a*	-1.2	1.2	-1.2	1.2	
Δ b*	-1.3	1.3	-1.3	1.3	
Δ E^*_{ab}		1.5		1.5	
Binder: Barytes Relative tinting strength [%]			95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		0.5	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.1	DIN EN ISO 787-7:2009
pH value	4	7	DIN EN ISO 787-9:1995

Edition: 2019-01-29 (Release 2.5)
Previous Edition: 2019-01-28 (Release 2.4)

Bayferrox® 610

Informative Technical Data (guide values)

					Test method
Iron oxide Content [%] [53]	>		98.8		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [8]	<		6.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		2.5		DIN EN ISO 787-2:1995
Particle shape			irregular		Electron micrographs
Predominant particle size [µm]		0.1	-	0.6	Electron micrographs
Oil absorption [g/100 g]	~		27		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.6	-	1.0	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.5		DIN EN ISO 787-10:1995

[8] In iron oxide brown pigments, a chemical transformation (dehydration and / or oxidation) is also recorded when determining the loss on ignition.

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2019-01-29 (Release 2.5)
Previous Edition: 2019-01-28 (Release 2.4)

Bayferrox® 610

Packaging

Grades are delivered in different packaging materials. Please ask your local contact about the packaging for the grade in question or send an enquiry mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	During storage, temperatures above 80 ° C are to be avoided since irreversible changes in the color of the pigment can occur.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.com.

Edition: 2019-01-29 (Release 2.5)
Previous Edition: 2019-01-28 (Release 2.4)

Bayferrox® 610

Information concerning food contact regulations

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark:

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2019-01-29 (Release 2.5)
Previous Edition: 2019-01-28 (Release 2.4)

Bayferrox® 610

Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2019-01-29 (Release 2.5)
Previous Edition: 2019-01-28 (Release 2.4)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Technical Data Sheet

Bayferrox® 686

Description

Type	Brown pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide (mixture)
Colour Index	Pigment red 101 (77491) / Pigment black 11 (77499)
CAS-No.	1309-37-1 / 1317-61-9
REACH	All components are registered

Specified Color Data

Colour values and tinting strength			
Standard	Bayferrox 686		
Year	2015		
Binder: Test paste based on a non drying alkyd resin	**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
Δ a*	-1.0	1.0	
Δ b*	-1.2	1.2	
ΔE^*_{ab}		1.3	
Binder: Barytes Relative tinting strength [%]	95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		1.2	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.1	DIN EN ISO 787-7:2009
pH value	5.0	8.0	DIN EN ISO 787-9:1995

Edition: 2019-01-29 (Release 2.14)
Previous Edition: 2019-01-28 (Release 2.13)

Bayferrox® 686

Informative Technical Data (guide values)

					Test method
Iron oxide Content [%] [53]	>		96.9		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [8]	<		4.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		2.5		DIN EN ISO 787-2:1995
Particle shape			irregular		Electron micrographs
Predominant particle size [µm]		0.1	-	0.6	Electron micrographs
Oil absorption [g/100 g]	~		22		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.8	-	1.2	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.5		DIN EN ISO 787-10:1995

[8] In iron oxide brown pigments, a chemical transformation (dehydration and / or oxidation) is also recorded when determining the loss on ignition.

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2019-01-29 (Release 2.14)
Previous Edition: 2019-01-28 (Release 2.13)

Bayferrox® 686

Packaging

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Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	During storage, temperatures above 80 ° C are to be avoided since irreversible changes in the color of the pigment can occur.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.com.

Edition: 2019-01-29 (Release 2.14)
Previous Edition: 2019-01-28 (Release 2.13)

Bayferrox® 686

Information concerning food contact regulations

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General remark:

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France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2019-01-29 (Release 2.14)
Previous Edition: 2019-01-28 (Release 2.13)

Bayferrox® 686

Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2019-01-29 (Release 2.14)
Previous Edition: 2019-01-28 (Release 2.13)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Technical Data Sheet

Bayferrox® 920

Description

Type	Yellow pigment
Delivery form	Powder
Chemical class	Synthetic iron hydroxide α - FeOOH
Colour Index	Pigment yellow 42 (77492)
CAS-No.	51274-00-1
REACH registration no.	01-2119457554-33-0000

Specified Color Data

Colour values and tinting strength					
Standard	Bayferrox 920				
Year	2016				
Binder: Test paste based on a non drying alkyd resin	**Full shade**		**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
Δ L*	-0.3	0.5			
Δ a*	-1.0	1.0	-1.0	1.0	
Δ b*	-1.3	1.3	-1.3	1.3	
Δ E^*_{ab}		1.5		1.5	
Relative tinting strength [%]			95	108	
Binder: Barytes Relative tinting strength [%]			95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		0.5	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.04	DIN EN ISO 787-7:2009
pH value	3.5	7.5	DIN EN ISO 787-9:1995

Edition: 2018-05-23 (Release 2.5)
Previous Edition: 2018-05-22 (Release 2.4)

Bayferrox® 920

Informative Technical Data (guide values)

					Test method
α - FeOOH content [%] [53]	>		99.4		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [3]	<		14.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		0.5		DIN EN ISO 787-2:1995
Particle shape			acicular		Electron micrographs
Predominant particle size [µm]		0.1	x	0.6	Electron micrographs
Oil absorption [g/100 g]	~		60		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.2	-	0.6	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.0		DIN EN ISO 787-10:1995

[3] Iron oxide yellow pigments contain a large amount of chemically bound water that is also recorded

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2018-05-23 (Release 2.5)
Previous Edition: 2018-05-22 (Release 2.4)

Bayferrox® 920

Packaging

Grades are delivered in different packaging materials. Please ask your local contact about the packaging for the grade in question or send an enquiry mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	During storage, temperatures above 120 ° C are to be avoided since a change to the pigment can occur due to dehydration.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.com.

Edition: 2018-05-23 (Release 2.5)
Previous Edition: 2018-05-22 (Release 2.4)

Bayferrox® 920

Information concerning food contact regulations

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark:

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements * (JHOSPA = Japan Hygienic Olefin and Styrene Plastics Association)
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2018-05-23 (Release 2.5)
Previous Edition: 2018-05-22 (Release 2.4)

Bayferrox® 920

Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

This information and our technical advice - whether verbal, in writing or by way of trials - are given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to check its validity and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery

Edition: 2018-05-23 (Release 2.5)
Previous Edition: 2018-05-22 (Release 2.4)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Product Information

Bayferrox® 960

Description

Type	Yellow pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide (mixture)
Colour Index	Pigment red 101 (77491) / Pigment yellow 42 (77492)
CAS-No.	1309-37-1 / 51274-00-1
REACH	All components are registered

Specified Color Data

Colour values and tinting strength					
Standard	Bayferrox 960				
Year	2010				
Binder: Test paste based on a non drying alkyd resin [46]	**Full shade**		**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
Δ L*	-0.3	0.5			
Δ a*	-1.0	1.0	-1.0	1.0	
Δ b*	-1.3	1.3	-1.3	1.3	
Δ E^*_{ab}		1.5		1.5	
Binder: Barytes Relative tinting strength [%]			95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		0.5	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.05	DIN EN ISO 787-7:2009
pH value	3.5	7.5	DIN EN ISO 787-9:1995

Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.8)

Bayferrox® 960

Informative Technical Data (guide values)

					Test method
Iron oxide Content [%] [53]	>		99.3		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [3]	<		11.0		DIN 55913-2:1972
Moisture content (after production) [%]	<		0.5		DIN EN ISO 787-2:1995
Particle shape			irregular		Electron micrographs
Predominant particle size [µm]		0.1	x	0.6	Electron micrographs
Oil absorption [g/100 g]	~		42		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.4	-	0.8	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.0		DIN EN ISO 787-10:1995

[3] Iron oxide yellow pigments contain a large amount of chemically bound water that is also recorded

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[46] Similar to wet system DIN 55983:1983

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.8)

Bayferrox® 960

Packaging

The product is available in sacks or bulk bags. For further information please ask your local contact or send an enquiry by e-mail to mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	When storing large quantities of pigments, temperatures above 120 °C must be avoided as an alteration (dehydratisation and oxidation) of the pigment may be caused by heat.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.de.

Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.8)

Bayferrox® 960

Information concerning food contact regulations (not specified)

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark:

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.01.2010
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.8)

Bayferrox® 960

Status of Registration (not specified)

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: METI	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.8)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Technical Data Sheet

Bayferrox® 130

Description

Type	Red pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide α - Fe_2O_3
Colour Index	Pigment red 101 (77491)
CAS-No.	1309-37-1
REACH registration no.	01-2119457614-35-0000

Specified Color Data

Colour values and tinting strength					
Standard	Bayferrox 130				
Year	2016				
Binder: Test paste based on a non drying alkyd resin	**Full shade**		**Reduction** [45] with titanium dioxide (1:5)		**Test method** No. 001 [41]
	min	**max**	**min**	**max**	
Δ L*	-0.5	0.5			
Δ a*	-1.0	1.0	-1.0	1.0	
Δ b*	-1.2	1.2	-1.3	1.3	
Δ E^*_{ab}		1.5		1.5	
Binder: Barytes Relative tinting strength [%]			95	105	**Test method** No. 003 [41]

Specified Technical Data

Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		0.4	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.06	DIN EN ISO 787-7:2009
pH value	4.0	8.0	DIN EN ISO 787-9:1995

Edition: 2017-12-19 (Release 3.2)
Previous Edition: 2016-09-30 (Release 3.1)

Bayferrox® 130

Informative Technical Data (guide values)

					Test method
α - Fe_2O_3 content [%] [53]	>		97.2		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%]	<		0.6		DIN 55913-2:1972
Moisture content (after production) [%]	<		0.5		DIN EN ISO 787-2:1995
Particle shape			spherical		Electron micrographs
Predominant particle size [µm]	~		0.17		Electron micrographs
Oil absorption [g/100 g]	~		27		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.7	-	1.1	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		5.0		DIN EN ISO 787-10:1995

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L*=0

[53] Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

Edition: 2017-12-19 (Release 3.2)
Previous Edition: 2016-09-30 (Release 3.1)

Bayferrox® 130

Packaging

The product is available in sacks or bulk bags. For further information please ask your local contact or send an enquiry by e-mail to mailto: ipg.product-information@lanxess.com

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.com.

Edition: 2017-12-19 (Release 3.2)
Previous Edition: 2016-09-30 (Release 3.1)

Bayferrox® 130

Information concerning food contact regulations

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark:

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
United Kingdom	Plastics for food contact applications, a code of practice for safety in use: BPF in connection with BIBRA, revised edition 1986. Like BfR Recommendation IX, this code does not have the force of law. However, processors view it as binding.
Italy	DECRETO 11 novembre 2013, n. 140 Regolamento recante aggiornamento al decreto del Ministro della sanita' 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.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	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.
Australia	AS 2070-1999
Brazil	In compliance with Resolução No. 52 of Nov.26.2010 for coloring utensils and equipment intended to come into contact with food and beverages.
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements * (JHOSPA = Japan Hygienic Olefin and Styrene Plastics Association)
USA	According to § 178.3297 (Colorants for Polymers)

Edition: 2017-12-19 (Release 3.2)
Previous Edition: 2016-09-30 (Release 3.1)

Bayferrox® 130

Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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Edition: 2017-12-19 (Release 3.2)
Previous Edition: 2016-09-30 (Release 3.1)

LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln

Product information

COLORTHERM® Green GN

Description

Type	Green pigment
Delivery form	Powder
Chemical class	Chromium oxide Cr_2O_3
Colour Index	Pigment Green 17 (77288)
CAS-No.	1308-38-9
REACH	01-2119433951-39-0000

Specified Color Data

Colour values and tinting strength					
Standard	COLORTHERM Green GN				
Year	2009				
Binder: Test paste based on a non drying alkyd resin	**Full shade**		**Reduction** with titanium dioxide (1:5) [45]		**Test method** No. 001 [41]
	min	**max**	**min**	**max**	
Δ L*	-0.5	0.5			
Δ a*	-0.6	0.6	-0.6	0.6	
Δ b*	-0.6	0.6	-0.6	0.6	
ΔE^*_{ab}		1.0		1.0	
Relative tinting strength [%]			95	105	

Specified Technical Data

Technical Data	**min**	**max**	
Water soluble content [%]		0.3	DIN EN ISO 787-3:2000
Water soluble Cr(VI) [ppm]		5	PVS 103 [41]
Sieve residue (0.045 mm sieve) [%]		0.06	DIN EN ISO 787-7:2009

Edition: 2016-07-04 (Release 1.2)
Previous Edition: 2015-03-20 (Release 1.1)

COLORTHERM® Green GN

Informative Technical Data (guide values)

					Test method
Cr_2O_3 content [%]	~		99		X-ray fluorescence
Loss on ignition at 1000 °C, 0.25 h [%]	<		0.4		DIN ISO 4621:1988
Particle shape			spherical		Electron micrographs
Predominant particle size [µm]	~		0.3		Electron micrographs
pH value		5	-	7	DIN EN ISO 787-9:1995
Oil absorption [g/100 g]	~		11		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.8	-	1,2,	DIN EN ISO 787-11:1995
Heat stability [°C]	>		300		DIN EN 12877-2:1999
Density [g/ml]	~		5.2		DIN EN ISO 787-10:1995

[41] Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com
[45] Colour values after matching of the tinting strength parameter Y, i.e. Δ L* = 0

Edition: 2016-07-04 (Release 1.2)
Previous Edition: 2015-03-20 (Release 1.1)

COLORTHERM® Green GN

Packaging

25-kg-bag 1000-kg-bulk bag

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.

Safety

Classification	The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations.
Additional information:	In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured. The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.de.

Edition: 2016-07-04 (Release 1.2)
Previous Edition: 2015-03-20 (Release 1.1)

COLORTHERM® Green GN

Information concerning food contact regulations (not specified)

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Germany	Empfehlung IX "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
United Kingdom	Plastics for food contact applications, a code of practice for safety in use: BPF in connection with BIBRA, revised edition 1986. Like BfR Recommendation IX, this code does not have the force of law. However, processors view it as binding.
Italy	DECRETO 11 novembre 2013, n. 140 Regolamento recante aggiornamento al decreto del Ministro della sanita' 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.
Spain	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.
Australia	AS 2070-1999
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.
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements
USA	For plastics with food contact application up to a concentration of 5 % with the following exceptions: - Olefin polymers according to § 177.1520 - Rubber articles for multiple use according to § 177.2600, concentration not more than 10 %

Edition: 2016-07-04 (Release 1.2)
Previous Edition: 2015-03-20 (Release 1.1)

COLORTHERM®
Color for Life.

LANXESS
Energizing Chemistry

COLORTHERM® Green GN

Status of Registration (not specified)

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIoC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

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LANXESS Deutschland GmbH
Business Unit
Inorganic Pigments
D-50569 Köln