Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010 - Europe

# SAFETY DATA SHEET

Ironoxide Yellow 420

00528234

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier			
Product name	: Iron Oxide Yellow 420		
<b>REACH Substance Name</b>	: iron hydroxide oxide yellow		
<b>REACH Registration number</b>	: 01-2119457554-33-0000		
1.2 Relevant identified uses of the substance or mixture and uses advised against			
Suitable uses	: Colorants (pigments and dyestuffs), inorganic		
1.3 Details of the supplier of th	e safety data sheet		
Supplier	: Kreidezeit Naturfarben GmbH, Kassemuehle 3, D-31196 Sehlem, Germany, phone: +49-(0)5060-6080650, E-mail: info@kreidezeit.de		
1.4 Emergency telephone number	: +49-(0)5060-6080650 (only during opening times)		

# **SECTION 2: Hazards identification**

0.4. Classification of the substance on mintur

2.1 Classification of the subs	tai	nce or mixture
Classification according to I	Re	gulation (EC) No. 1272/2008 [CLP/GHS]
Classification	:	Not classified.
Classification according to I	Dir	ective 67/548/EEC [DSD]
Classification	:	Not classified.
2.2 Label elements		
Hazard pictograms	:	Not applicable.
Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Additional warning	:	Not applicable.
phrases		
Precautionary statements		
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
2.3 Other hazards		
Other hazards which do not result in classification	:	Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

## **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mono-constituent substance

#### C.I. Pigment Yellow 42, FeOOH

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

Occupational exposure limits, if available, are listed in Section 8.

# SECTION 4: First aid measures 4.1 Description of first aid measures Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if you feel unwell. Ingestion : No special measures required.

: No special measures required.
: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising fr	ron	n the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire-fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for	containment and cleaning up
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	:	No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	:	No special measures required.
7.3 Specific end use(s)		
Recommendations	:	Not available.
Industrial sector specific solutions	:	Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters	
Exposure limit values	:

: Not available.

Derived effect lev	els					
Ingredient name	Туре	Exposure	Value	Population	Effects	Remarks
Fon hydroxide oxide yellow	DNEL	Long term Inhalation	10 mg/m³	Workers	Systemic	Inhalable Dust
	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	Workers	Local	Inhalable Dust
Conclusion/Sumr	nary	: Dust Inha	lable 10 mg/m³ ,	Respirable d	ust 3 mg/m³	

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Predicted No Effect Conce				_
Ingredient name	Compartment Detail	Value	Method Detail	Remarks
Conclusion/Summary	: PNECs:No	t applicable.		
Recommended monitoring procedures	workplace a determine t measures a equipment. such as the atmosphere inhalation to measureme atmosphere the assess European S requiremen measureme documents	atmosphere of the effectiver and/or the ne following: E es - Guidanc o chemical a ent strategy) es - Guide fo ment of expo Standard EN ts for the per ent of chemic	ingredients with exposi- or biological monitoring bess of the ventilation of cessity to use respirat should be made to mo European Standard EN e for the assessment of gents for comparison of European Standard E r the application and u sure to chemical and to 482 (Workplace atmost formance of procedure cal agents) Reference for the determination of required.	g may be required to br other control ory protective nitoring standards, I 689 (Workplace of exposure by with limit values and N 14042 (Workplace se of procedures for biological agents) spheres - General es for the to national guidance
8.2 Exposure controls				
Risk management measur	es			
Occupational exposure c	<u>ontrols</u>			
Technical measures	dust, fumes exhaust ver	s, gas, vapou ntilation or of airborne co	ventilation. If user op ir or mist, use process ther engineering contro ntaminants below any	enclosures, local ols to keep worker
Personal protection meas	<u>ures</u>			
Respiratory protection	: Recommen	ded: Dust-p	rotection mask	
Hand protection	: Recommen	ded: gloves		
Eye protection	used when exposure to conditions of dust goggle	a risk asses bliquid splas cause high d es.	ing with an approved s sment indicates this is hes, mists, gases or d ust concentrations to b glasses with side-shiel	necessary to avoid usts. If operating be produced, use
Skin protection	based on th	ne task being	ipment for the body sh performed and the ris a specialist before han	ks involved and
Hygiene measures	chemical pr and at the e should be u contaminate	oducts, before and of the wo used to remo ed clothing b	and face thoroughly af pre eating, smoking and orking period. Appropr ve potentially contamin pefore reusing. Ensure wers are close to the w	d using the lavatory iate techniques nated clothing. Wash that eyewash
Environmental exposure of	<u>controls</u>			
Technical measures	checked to environmer scrubbers,	ensure they ital protectio filters or eng	on or work process eq comply with the requir n legislation. In some ineering modifications sary to reduce emissio	ements of cases, fume to the process

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## **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

General information	
<u>Appearance</u>	
Physical state :	Solid. [Powder.]
Colour :	Yellow.
Odour :	Odourless.
Important health, safety and en	vironmental information
pH :	₿,5 to 7,5 [Conc. (% w/w): 5%]
Melting point :	>1000°C (>1832°F)
Density :	<mark>4∕</mark> kg/L (20℃)
Bulk density :	300 to 1000 kg/m³
Solubility :	<0,000001 g/l (water)
	Insoluble in the following materials: cold water
Decomposition : temperature	180°C

#### 9.2 Other information

No additional information.

# SECTION 10: Stability and reactivity

10.1 Reactivity 10.2 Chemical stability		No specific test data related to reactivity available for this product or its ingredients. The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid 10.5 Incompatible materials 10.6 Hazardous decomposition products		No specific data. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### Potential acute health effects

Eye contact	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.				
Acute toxicity					
Product/ingredient name	Result	Species	Dose	Exposure	Test
<b>F</b> on hydroxide oxide yellow	LD50 - Oral	Rat	>10000 mg/ kg	-	-

Fon hydroxide oxide yellow	LC50 - Inhalation Dusts and mists LC50 - Inhalation Dusts and mists	Rat Rat	>195 g/m³ >195 mg/m³	6 hours 2 weeks	-
Irritation/Corrosion					
Product/ingredient name	Result	Species	Score	Exposure	Test
<b>F</b> on hydroxide oxide yellow	Eyes - Oedema of the conjunctivae	Rabbit	0	50 mg	-
	Skin - Oede	ma Rabbit	0	24 hours 500 mg	-
Skin		irritating			
Eyes	: Non-	irritating			
<u>Sensitiser</u>					
Product/ingredient name	Route of exposure	Species	Resu	ılt	Test description
Fon hydroxide oxide yellow	skin	Guinea pi	g Not s	ensitizing	-
Skin	: Iron	hydroxide ox	ide yellow:Not	sensitizing	
Chronic effects		eated or prole		on of dust m	ay lead to chronic

# **SECTION 12: Ecological information**

12.1 Toxicity				
Product/ingredient name	Test	Result	Species	Exposure
Fon hydroxide oxide yellow	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute LC0 >100000 mg/l	Fish - Danio rerio	96 hours
Conclusion/Summary	: Not av	vailable.		
12.2 Persistence and de	egradability			
Conclusion/Summary	: Not av	vailable.		
12.3 Bioaccumulative p	otential			
Not available.				
12.4 Mobility in soil				
Soil/water partition coefficient (Koc)	: Not av	vailable.		
Mobility	: Not av	vailable.		
12.5 Results of PBT and	d vPvB assess	ment		
РВТ	: Not ap	oplicable.		
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Not available.	
12.4 Mobility in soil vPvB	: Not applicable.
12.6 Other adverse effects	
Other adverse effects	: Not available.
AOX	: Not available.
Remarks	: No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

<u>Product</u>	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG		
14.1 UN number	-	-	-	-	
14.2 UN proper shipping name	-	-	-	-	
14.3 Transport hazard class(es)/ Marks	-	-	-	-	
14.4 Packing group	-	-	-	-	
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14.5 Environmental hazards	No.	No.	No	No
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

**14.7 Transport in bulk according to Annex**: Not available.II of MARPOL 73/78 and the IBC Code

Hazard notes:

Not dangerous cargo. Keep separated from foodstuffs.

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

Annex XVII - : Not applicable.

Restrictions on the manufacture, placing on the market and use of

certain dangerous substances, mixtures

#### and articles

#### Other EU regulations

#### Seveso II Directive

This product is not controlled under the Seveso II Directive.

**15.2 Chemical Safety** : Not applicable. **Assessment** 

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative	n (EC) No.
<u>History</u>			
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 $oldsymbol{\mathbb{V}}$  Indicates information that has changed from previously issued version.

#### Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 453/2010 - Europe

# SAFETY DATA SHEET

Ironoxide Yellow 930

00528234

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier	
Product name	: Iron Oxide Yellow 930
REACH Substance Name	: iron hydroxide oxide yellow
<b>REACH Registration number</b>	: 01-2119457554-33-0000
1.2 Relevant identified uses of	the substance or mixture and uses advised against
Suitable uses	: Colorants (pigments and dyestuffs), inorganic
1.3 Details of the supplier of th	e safety data sheet
Supplier	<ul> <li>Kreidezeit Naturfarben GmbH, Kassemuehle 3, D-31196 Sehlem, Germany, phone: +49-(0)5060-6080650, E-mail: info@kreidezeit.de</li> </ul>
1.4 Emergency telephone number	: +49-(0)5060-6080650 (only during opening times)

# **SECTION 2: Hazards identification**

0.4. Classification of the substance on mintur

2.1 Classification of the subs	2.1 Classification of the substance or mixture			
Classification according to I	Re	gulation (EC) No. 1272/2008 [CLP/GHS]		
Classification	:	Not classified.		
Classification according to Directive 67/548/EEC [DSD]				
Classification	:	Not classified.		
2.2 Label elements				
Hazard pictograms	:	Not applicable.		
Signal word	:	No signal word.		
Hazard statements	:	No known significant effects or critical hazards.		
Additional warning	:	Not applicable.		
phrases				
Precautionary statements				
Prevention	:	Not applicable.		
Response	:	Not applicable.		
Storage	:	Not applicable.		
Disposal	:	Not applicable.		
2.3 Other hazards				
Other hazards which do not result in classification	:	Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.		

# **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mono-constituent substance

#### C.I. Pigment Yellow 42, FeOOH

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

Occupational exposure limits, if available, are listed in Section 8.

# SECTION 4: First aid measures 4.1 Description of first aid measures Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if you feel unwell. Ingestion : No special measures required.

Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the
-	upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising fr	ron	n the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire-fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, : protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental : precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for a	containment and cleaning up
Small spill :	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill :	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
6.4 Reference to other : sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	:	No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	:	No special measures required.
7.3 Specific end use(s)		
Recommendations	:	Not available.
Industrial sector specific solutions	:	Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters	
Exposure limit values	:

: Not available.

Derived effect levels								
Ingredient name	Туре	Exposure	Value	Population	Effects	Remarks		
Fon hydroxide oxide yellow	DNEL	Long term Inhalation	10 mg/m³	Workers	Systemic	Inhalable Dust		
	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	Workers	Local	Inhalable Dust		
<b>Conclusion/Summary</b> : Dust Inhalable 10 mg/m <sup>3</sup> , Respirable dust 3 mg/m <sup>3</sup>								

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Predicted No Effect Conce				_
Ingredient name	Compartment Detail	Value	Method Detail	Remarks
Conclusion/Summary	: PNECs:No	t applicable.		
Recommended monitoring procedures	workplace a determine t measures a equipment. such as the atmosphere inhalation to measureme atmosphere the assess European S requiremen measureme documents	atmosphere of the effectiver and/or the ne following: E es - Guidanc o chemical a ent strategy) es - Guide fo ment of expo Standard EN ts for the per ent of chemic	ingredients with exposi- or biological monitoring bess of the ventilation of cessity to use respirat should be made to mo European Standard EN e for the assessment of gents for comparison of European Standard E r the application and u sure to chemical and to 482 (Workplace atmost formance of procedure cal agents) Reference for the determination of required.	g may be required to br other control ory protective nitoring standards, I 689 (Workplace of exposure by with limit values and N 14042 (Workplace se of procedures for biological agents) spheres - General es for the to national guidance
8.2 Exposure controls				
Risk management measur	es			
Occupational exposure c	<u>ontrols</u>			
Technical measures	dust, fumes exhaust ver	s, gas, vapou ntilation or of airborne co	ventilation. If user op ir or mist, use process ther engineering contro ntaminants below any	enclosures, local ols to keep worker
Personal protection meas	<u>ures</u>			
Respiratory protection	: Recommen	ded: Dust-p	rotection mask	
Hand protection	: Recommen	ded: gloves		
Eye protection	used when exposure to conditions of dust goggle	a risk asses bliquid splas cause high d es.	ing with an approved s sment indicates this is hes, mists, gases or d ust concentrations to b glasses with side-shiel	necessary to avoid usts. If operating be produced, use
Skin protection	based on th	ne task being	ipment for the body sh performed and the ris a specialist before han	ks involved and
Hygiene measures	chemical pr and at the e should be u contaminate	oducts, before and of the wo used to remo ed clothing b	and face thoroughly af pre eating, smoking and orking period. Appropr ve potentially contamin pefore reusing. Ensure wers are close to the w	d using the lavatory iate techniques nated clothing. Wash that eyewash
Environmental exposure of	<u>controls</u>			
Technical measures	checked to environmer scrubbers,	ensure they ital protectio filters or eng	on or work process eq comply with the requir n legislation. In some ineering modifications sary to reduce emissio	ements of cases, fume to the process

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## **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

General information		
<u>Appearance</u>		
Physical state	: Solid. [Powder.]	
Colour	: Yellow.	
Odour	: Odourless.	
Important health, safety and e	environmental information	
рН	: 𝕵,5 to 7,5 [Conc. (% w/w): 5%]	
Melting point	: >1000°C (>1832°F)	
Density	: <mark>⋪</mark> kg/L (20℃)	
Bulk density	: 300 to 1000 kg/m <sup>3</sup>	
Solubility	: <0,000001 g/l (water)	
	Insoluble in the following materials: cold water	
Decomposition temperature	: 180°C	

#### 9.2 Other information

No additional information.

# SECTION 10: Stability and reactivity

10.1 Reactivity		No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions 10.4 Conditions to avoid	:	Under normal conditions of storage and use, hazardous reactions will not occur.
	-	
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### Potential acute health effects

Eye contact	: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.				
Acute toxicity					
Product/ingredient name	Result	Species	Dose	Exposure	Test
<b>F</b> on hydroxide oxide yellow	LD50 - Oral	Rat	>10000 mg/ kg	-	-

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Fon hydroxide oxide yellow	LC50 - Inhalation Dusts and mists LC50 - Inhalation Dusts and mists	Rat Rat	>195 g/m³ >195 mg/m³	6 hours 2 weeks	-
Irritation/Corrosion					
Product/ingredient name	Result	Species	Score	Exposure	Test
<b>F</b> on hydroxide oxide yellow	Eyes - Oedema of the conjunctiva		0	50 mg	-
	,	ema Rabbit	0	24 hours 500 mg	-
Skin	: Non-	-irritating			
Eyes	: Non-	-irritating			
<u>Sensitiser</u>					
Product/ingredient name	Route of exposure	Species	Resu	llt	Test description
fon hydroxide oxide yellow	skin	Guinea pi	g Nots	ensitizing	-
Skin	: Iron	hydroxide ox	ide yellow:Not	sensitizing	
Chronic effects		eated or prole iratory irritatio		on of dust m	ay lead to chronic

# **SECTION 12: Ecological information**

12.1 Toxicity				
Product/ingredient name	Test	Result	Species	Exposure
Fon hydroxide oxide yellow	OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	-	Acute LC0 >100000 mg/l	Fish - Danio rerio	96 hours
Conclusion/Summary	: Not av	vailable.		
12.2 Persistence and de	egradability			
Conclusion/Summary	: Not av	vailable.		
12.3 Bioaccumulative p	otential			
Not available.				
12.4 Mobility in soil				
Soil/water partition coefficient (Koc)	: Not av	vailable.		
Mobility	: Not av	vailable.		
12.5 Results of PBT and	d vPvB assess	ment		
РВТ	: Not ap	oplicable.		
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Not available.	
12.4 Mobility in soil vPvB	: Not applicable.
12.6 Other adverse effects	
Other adverse effects	: Not available.
AOX	: Not available.
Remarks	: No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

<u>Product</u>	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	ΙΑΤΑ	
14.1 UN number	-	-	-	-	
14.2 UN proper shipping name	-	-	-	-	
14.3 Transport hazard class(es)/ Marks	-	-	-	-	
14.4 Packing group	-	-	-	-	
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14.5 Environmental hazards	No.	No.	No	No
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

**14.7 Transport in bulk according to Annex** : Not available. **II of MARPOL 73/78 and the IBC Code** 

Hazard notes:

Not dangerous cargo. Keep separated from foodstuffs.

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

#### Substances of very high concern

None of the components are listed.

Annex XVII - : Not applicable.

Restrictions on the manufacture, placing on the market and use of

certain dangerous substances, mixtures

#### and articles

#### Other EU regulations

#### Seveso II Directive

This product is not controlled under the Seveso II Directive.

**15.2 Chemical Safety** : Not applicable. **Assessment** 

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PBT = Persistent, Bioaccumulative and Toxic PNEC = Predicted No Effect Concentration RRN = REACH Registration Number vPvB = Very Persistent and Very Bioaccumulative	(EC) No.
<u>History</u>		-,	
Date of issue	:	2013-07-16	
Date of previous issue	:	2013-02-01	
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#### Version : 5

 ${f V}$  Indicates information that has changed from previously issued version.

#### Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Red 110

# 00006246

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier		
Product name	:	Ironoxide Red 110
<b>REACH Substance Name</b>	:	diiron trioxide
<b>REACH Registration number</b>	:	01-2119457614-35-0000
1.2 Relevant identified uses of	the	substance or mixture and uses advised against
Uses	:	Colorants (pigments and dyestuffs), inorganic
1.3 Details of the supplier of the	e s	afety data sheet
Supplier	:	Kreidezeit Naturfarben GmbH Kassemuehle 3, D-31196 Sehlem, Germany phone: *49-(0)5060-6080650, E-mail: info@kreidezeit.de
1.4 Emergency telephone number	:	+49-(0)5060-6080650 (only during opening times)

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : Not classified. Classification Classification according to Directive 67/548/EEC [DSD] Classification : Not classified. 2.2 Label elements Hazard pictograms : Not applicable. Signal word : No signal word. Hazard statements : No known significant effects or critical hazards. **Precautionary statements** Prevention : Not applicable. Response : Not applicable. Storage : Not applicable. Disposal : Not applicable. 2.3 Other hazards Other hazards which do not : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and result in classification throat.

# **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mono-

: Mono-constituent substance

Fe2O3

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

# **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: No special measures required.
Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $CO_2$ .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising from	om	the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for	containment and cleaning up
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific	: Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameter Exposure limit value		:	Not available.			
Derived effect level	<u>s</u>					
Ingredient name diiron trioxide	<b>Type</b> DNEL DNEL		<b>Exposure</b> Long term Inhalation Long term Inhalation	<b>Value</b> 10 mg/m³ 3 mg/m³	<b>Population</b> Workers Workers	<b>Effects</b> Local Local
Conclusion/Summa	ry	:	Dust Inhalable 10 mg/r	n³ , Respirable	e dust 3 mg/m³	
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Predicted effect conc	entrations				
Ingredient name	Туре	Compartment Detail Value Method Detail			
Conclusion/Summary	:	PNECs : Not applicable.			
Recommended monit procedures	oring	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.			
8.2 Exposure controls	;				
Risk management me					
Occupational exposu	ure control	<u>s</u>			
Technical measures	5	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.			
Personal protection n	<u>neasures</u>				
Respiratory protect	ion	Recommended: Dust-protection mask			
Hand protection		Recommended: gloves			
Eye protection		<ul> <li>Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles.</li> <li>Recommended: safety glasses with side-shields</li> </ul>			
Skin protection	:	<ul> <li>Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.</li> </ul>			
Hygiene measures		Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.			
Environmental expos	ure contro	<u>ls</u>			
Technical measures	6	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.			

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

#### **General information**

<u>Appearance</u>	
Physical state	: Solid. [powders]
Colour	: Red.
Odour	: Odourless.
Important health, safety and	environmental information
рН	: 4 to 8 [Conc. (% w/w): 5%]
Melting point	: 1565°C (2849°F)
Density	: 5,25 kg/L (20 °C)
Solubility	: <0,000001 g/l (water)
9.2 Other information	

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Potential acute health e	ffects					
Eye contact			orne concentra exposure limits i			eyes.
Acute toxicity						
Product/ingredient name	Result	Species	Dose	Exposure	Test	
diiron trioxide	LD50 - Oral	Rat	>5000 mg/kg	] -	-	
diiron trioxide	LC50 - Inhalation Dusts and mists	Rat	>210 mg/m³	2 weeks	-	
Irritation/Corrosion						
Skin	: Non-	irritating *Te	est results on a	n analogous	product	
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Eyes	: Non-irritating *Test results on an analogous product				
<u>Sensitiser</u>					
Product/ingredient name	Route o exposu		Result	Test description	
diiron trioxide	skin	Guinea pig	Not sensitizing	-	
Potential chronic health Mutagenicity	<u>effects</u>				
Product/ingredient nam	e	Test	Experiment	Result	
diiron trioxide		Ames test	Experiment: In v Subject: Bacteria	5	
Chronic effects	:	Repeated or prolonge respiratory irritation.	d inhalation of dust m	nay lead to chronic	

# **SECTION 12: Ecological information**

12.1 Toxicity						
Product/ingredient name		Test	Result		Species	Exposure
diiron trioxide		ISO 8192	Acute EC50 >10000 mg/l	-	Micro- organism - activated sludge	3 hours
		OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	-	Daphnia - Daphnia magna	48 hours
		-	Acute LC0 >50000 mg/L	-	Fish - Danio rerio	96 hours
<b>Conclusion/Summary</b>	: No	ot available.				
12.2 Persistence and degrad	ability					
Conclusion/Summary	: No	t available.				
12.3 Bioaccumulative potent	ial					
Not available.						
12.4 Mobility in soil						
Soil/water partition coefficient (Koc)	: No	t available.				
Mobility	: No	ot available.				
12.5 Results of PBT and vPv	B asse	essment				
PBT	: No	t applicable.				
vPvB	: No	t applicable.				
12.6 Other adverse effects						
Other adverse effects	: No	t available.				
Remarks		No known significant effects or critical hazards. Iron oxide is an inorganic pigment potentially no polluter. LXS			de is an	

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
<u>Packaging</u>	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

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**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

#### Hazard notes:

Assessment

Not dangerous cargo. Keep separated from foodstuffs.

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
15.2 Chemical Safety	: Not applicable.

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
<u>History</u>		
Date of issue	:	2011-03-25
Date of previous issue	:	2011-03-24
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Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Red 130

# 00006246

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier		
Product name	:	Ironoxide Red 130
<b>REACH Substance Name</b>	:	diiron trioxide
<b>REACH Registration number</b>	:	01-2119457614-35-0000
1.2 Relevant identified uses of	the	e substance or mixture and uses advised against
Uses	:	Colorants (pigments and dyestuffs), inorganic
1.3 Details of the supplier of the	e s	afety data sheet
Supplier	:	Kreidezeit Naturfarben GmbH Kassemuehle 3, D-31196 Sehlem, Germany phone: *49-(0)5060-6080650, E-mail: info@kreidezeit.de
1.4 Emergency telephone number	:	+49-(0)5060-6080650 (only during opening times)

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : Not classified. Classification Classification according to Directive 67/548/EEC [DSD] Classification : Not classified. 2.2 Label elements Hazard pictograms : Not applicable. Signal word : No signal word. Hazard statements : No known significant effects or critical hazards. **Precautionary statements** Prevention : Not applicable. Response : Not applicable. Storage : Not applicable. Disposal : Not applicable. 2.3 Other hazards Other hazards which do not : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and result in classification throat.

# **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mone

: Mono-constituent substance

Fe2O3

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

# **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: No special measures required.
Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising from	om	the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Date of issue

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# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for	containment and cleaning up
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific	: Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameter		:	Not available.			
Derived effect level	<u>s</u>					
Ingredient name diiron trioxide	<b>Type</b> DNEL DNEL		Exposure Long term Inhalation Long term Inhalation	<b>Value</b> 10 mg/m³ 3 mg/m³	<b>Population</b> Workers Workers	<b>Effects</b> Local Local
Conclusion/Summa	ry	:	Dust Inhalable 10 mg/r	m³ , Respirable	dust 3 mg/m³	
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Predicted effect con	centrations	<u> </u>
Ingredient name	Туре	Compartment Detail Value Method Detail
Conclusion/Summar	у:	PNECs : Not applicable.
Recommended moni procedures	toring	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
8.2 Exposure control		
Risk management m		
Occupational expos	ure contro	ls
Technical measure	es	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Personal protection	<u>measures</u>	
Respiratory protec	tion	: Recommended: Dust-protection mask
Hand protection		: Recommended: gloves
Eye protection		: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields
Skin protection		: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures		: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Environmental expos	sure contro	bls
Technical measure	es	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

#### **General information**

<u>Appearance</u>	
Physical state	: Solid. [powders]
Colour	: Red.
Odour	: Odourless.
Important health, safety and	environmental information
рН	: 4 to 8 [Conc. (% w/w): 5%]
Melting point	: 1565°C (2849°F)
Density	: 5,25 kg/L (20 °C)
Solubility	: <0,000001 g/l (water)
9.2 Other information	

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Potential acute health of Eye contact	: Expo		orne concentra exposure limits i			eyes.
Acute toxicity Product/ingredient name	Result	Species	Dose	Exposure	Test	
diiron trioxide	LD50 - Oral	Rat	>5000 mg/kg	] -	-	
diiron trioxide	LC50 - Inhalation Dusts and mists	Rat	>210 mg/m³	2 weeks	-	
<u>Irritation/Corrosion</u> Skin	: Non-	irritating *Te	est results on a	n analogous	product	
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Eyes	: Non-irritating *Test results on an analogous product					
<u>Sensitiser</u>						
Product/ingredient name	Route o exposu		Result	Test description		
diiron trioxide	skin	Guinea pig	Not sensitizing	-		
Potential chronic health Mutagenicity	<u>effects</u>					
Product/ingredient nam	e	Test	Experiment	Result		
diiron trioxide		Ames test	Experiment: In v Subject: Bacteria	5		
Chronic effects	:	Repeated or prolonge respiratory irritation.	d inhalation of dust m	nay lead to chronic		

# **SECTION 12: Ecological information**

12.1 Toxicity						
Product/ingredient name		Test	Result		Species	Exposure
diiron trioxide		ISO 8192	Acute EC50 >10000 mg/l	-	Micro- organism - activated sludge	3 hours
		OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	-	Daphnia - Daphnia magna	48 hours
		-	Acute LC0 >50000 mg/L	-	Fish - Danio rerio	96 hours
<b>Conclusion/Summary</b>	: No	ot available.				
12.2 Persistence and degrad	ability					
Conclusion/Summary	: No	t available.				
12.3 Bioaccumulative potential						
Not available.						
12.4 Mobility in soil						
Soil/water partition coefficient (Koc)	: No	t available.				
Mobility	: No	ot available.				
12.5 Results of PBT and vPv	B asse	essment				
PBT	: No	t applicable.				
vPvB	: No	t applicable.				
12.6 Other adverse effects						
Other adverse effects	: No	t available.				
Remarks		known significar organic pigment p				de is an

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
<u>Packaging</u>	
Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Date o	of issue
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**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

#### Hazard notes:

Assessment

Not dangerous cargo. Keep separated from foodstuffs.

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
15.2 Chemical Safety	: Not applicable.

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
<u>History</u>		
Date of issue	:	2011-03-25
Date of previous issue	:	2011-03-24
Version	:	2.01

Indicates information that has changed from previously issued version.

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Red 140

# 00006246

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier			
Product name	:	Ironoxide Red 140	
<b>REACH Substance Name</b>	:	diiron trioxide	
<b>REACH</b> Registration number	:	01-2119457614-35-0000	
1.2 Relevant identified uses of the substance or mixture and uses advised against			
Uses	:	Colorants (pigments and dyestuffs), inorganic	
1.3 Details of the supplier of the safety data sheet			
Supplier	:	Kreidezeit Naturfarben GmbH Kassemuehle 3, D-31196 Sehlem, Germany phone: *49-(0)5060-6080650, E-mail: info@kreidezeit.de	
1.4 Emergency telephone number	:	+49-(0)5060-6080650 (only during opening times)	

# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : Not classified. Classification Classification according to Directive 67/548/EEC [DSD] Classification : Not classified. 2.2 Label elements Hazard pictograms : Not applicable. Signal word : No signal word. Hazard statements : No known significant effects or critical hazards. **Precautionary statements** Prevention : Not applicable. Response : Not applicable. Storage : Not applicable. Disposal : Not applicable. 2.3 Other hazards Other hazards which do not : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and result in classification throat.

# **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : M

: Mono-constituent substance

Fe2O3

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

# **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: No special measures required.
Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or $CO_2$ .		
Unsuitable extinguishing media	:	None known.		
5.2 Special hazards arising from the substance or mixture				
Hazards from the substance or mixture	:	No specific fire or explosion hazard.		
Hazardous combustion products	:	No specific data.		
5.3 Advice for firefighters				
Special precautions for fire- fighters	:	Not applicable.		
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.		

Date of issue

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solutions

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.	
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, so or air).	
6.3 Methods and materials for	containment and cleaning up	
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.	
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.	
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>	

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific	: Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameter Exposure limit value		:	Not available.			
Derived effect level	<u>s</u>					
Ingredient name diiron trioxide	<b>Type</b> DNEL DNEL		<b>Exposure</b> Long term Inhalation Long term Inhalation	<b>Value</b> 10 mg/m³ 3 mg/m³	<b>Population</b> Workers Workers	<b>Effects</b> Local Local
Conclusion/Summa	ry	:	Dust Inhalable 10 mg/r	n³ , Respirable	e dust 3 mg/m³	
Date of issue		:	2011-03-25			Page: 3/8

Predicted effect con	centrations	<u> </u>
Ingredient name	Туре	Compartment Detail Value Method Detail
Conclusion/Summar	у:	PNECs : Not applicable.
Recommended moni procedures	toring	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
8.2 Exposure control		
Risk management m		
Occupational expos	ure contro	<u>ls</u>
Technical measure	es	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Personal protection	<u>measures</u>	
Respiratory protec	tion	: Recommended: Dust-protection mask
Hand protection		: Recommended: gloves
Eye protection		: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields
Skin protection		: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures		: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Environmental expos	sure contro	bls
Technical measure	es	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

#### **General information**

<u>Appearance</u>	
Physical state	: Solid. [powders]
Colour	: Red.
Odour	: Odourless.
Important health, safety and	environmental information
рН	: 4 to 8 [Conc. (% w/w): 5%]
Melting point	: 1565°C (2849°F)
Density	: 5,25 kg/L (20 °C)
Solubility	: <0,000001 g/l (water)
9.2 Other information	

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Potential acute health e	ffects					
Eye contact			orne concentra exposure limits i			eyes.
Acute toxicity						
Product/ingredient name	Result	Species	Dose	Exposure	Test	
diiron trioxide	LD50 - Oral	Rat	>5000 mg/kg	] -	-	
diiron trioxide	LC50 - Inhalation Dusts and mists	Rat	>210 mg/m³	2 weeks	-	
Irritation/Corrosion						
Skin	: Non-	irritating *Te	est results on a	n analogous	product	
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Eyes	: Non-irritating *Test results on an analogous product			
<u>Sensitiser</u>				
Product/ingredient name	Route o exposu		Result	Test description
diiron trioxide	skin	Guinea pig	Not sensitizing	-
Potential chronic health Mutagenicity	<u>effects</u>			
Product/ingredient nam	e	Test	Experiment	Result
diiron trioxide		Ames test	Experiment: In v Subject: Bacteria	5
Chronic effects	:	Repeated or prolonge respiratory irritation.	d inhalation of dust m	nay lead to chronic

# **SECTION 12: Ecological information**

12.1 Toxicity						
Product/ingredient name		Test	Result		Species	Exposure
diiron trioxide		ISO 8192	Acute EC50 >10000 mg/l	-	Micro- organism - activated sludge	3 hours
		OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	-	Daphnia - Daphnia magna	48 hours
		-	Acute LC0 >50000 mg/L	-	Fish - Danio rerio	96 hours
<b>Conclusion/Summary</b>	: No	ot available.				
12.2 Persistence and degrad	ability					
Conclusion/Summary	: No	t available.				
12.3 Bioaccumulative potent	ial					
Not available.						
12.4 Mobility in soil						
Soil/water partition coefficient (Koc)	: No	t available.				
Mobility	: No	ot available.				
12.5 Results of PBT and vPv	B asse	essment				
PBT	: No	t applicable.				
vPvB	: No	t applicable.				
12.6 Other adverse effects						
Other adverse effects	: No	t available.				
Remarks		known significar organic pigment p				de is an

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
<u>Packaging</u>	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Date of	issue
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**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

#### Hazard notes:

Assessment

Not dangerous cargo. Keep separated from foodstuffs.

### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
15.2 Chemical Safety	: Not applicable.

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
<u>History</u>		
Date of issue	:	2011-03-25
Date of previous issue	:	2011-03-24
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Indicates information that has changed from previously issued version.

Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Red 180

### 00006246

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier		
Product name	:	Ironoxide Red 180
<b>REACH Substance Name</b>	:	diiron trioxide
<b>REACH Registration number</b>	:	01-2119457614-35-0000
1.2 Relevant identified uses of	the	substance or mixture and uses advised against
Uses	:	Colorants (pigments and dyestuffs), inorganic
1.3 Details of the supplier of the	e s	afety data sheet
Supplier	:	Kreidezeit Naturfarben GmbH Kassemuehle 3, D-31196 Sehlem, Germany phone: *49-(0)5060-6080650, E-mail: info@kreidezeit.de
1.4 Emergency telephone number	:	+49-(0)5060-6080650 (only during opening times)

### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS] : Not classified. Classification Classification according to Directive 67/548/EEC [DSD] Classification : Not classified. 2.2 Label elements Hazard pictograms : Not applicable. Signal word : No signal word. Hazard statements : No known significant effects or critical hazards. **Precautionary statements** Prevention : Not applicable. Response : Not applicable. Storage : Not applicable. Disposal : Not applicable. 2.3 Other hazards Other hazards which do not : Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and result in classification throat.

### **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mo

: Mono-constituent substance

Fe2O3

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

### **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: No special measures required.
Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising from	om	I the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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solutions

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for	containment and cleaning up
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific	: Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameter		:	Not available.			
Derived effect level	<u>s</u>					
Ingredient name diiron trioxide	<b>Type</b> DNEL DNEL		Exposure Long term Inhalation Long term Inhalation	<b>Value</b> 10 mg/m³ 3 mg/m³	<b>Population</b> Workers Workers	<b>Effects</b> Local Local
Conclusion/Summa	ry	:	Dust Inhalable 10 mg/r	m³ , Respirable	dust 3 mg/m³	
Date of issue		:	2011-03-25			Page: 3/8

Predicted effect con	centrations	<u> </u>
Ingredient name	Туре	Compartment Detail Value Method Detail
Conclusion/Summar	у:	PNECs : Not applicable.
Recommended moni procedures	toring	: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
8.2 Exposure control		
Risk management m		
Occupational expos	ure contro	<u>ls</u>
Technical measure	es	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Personal protection	<u>measures</u>	
Respiratory protec	tion	: Recommended: Dust-protection mask
Hand protection		: Recommended: gloves
Eye protection		: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields
Skin protection		: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures		: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Environmental expos	sure contro	bls
Technical measure	es	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

#### **General information**

<u>Appearance</u>	
Physical state	: Solid. [powders]
Colour	: Red.
Odour	: Odourless.
Important health, safety and	environmental information
рН	: 4 to 8 [Conc. (% w/w): 5%]
Melting point	: 1565°C (2849°F)
Density	: 5,25 kg/L (20 °C)
Solubility	: <0,000001 g/l (water)
9.2 Other information	

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	No specific data.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Potential acute health of Eye contact	: Expo		orne concentra exposure limits i			eyes.
Acute toxicity Product/ingredient name	Result	Species	Dose	Exposure	Test	
diiron trioxide	LD50 - Oral	Rat	>5000 mg/kg	] -	-	
diiron trioxide	LC50 - Inhalation Dusts and mists	Rat	>210 mg/m³	2 weeks	-	
<u>Irritation/Corrosion</u> Skin	: Non-	irritating *Te	est results on a	n analogous	product	
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Eyes	: Non-irritating *Test results on an analogous product			
<u>Sensitiser</u>				
Product/ingredient name	Route o exposu		Result	Test description
diiron trioxide	skin	Guinea pig	Not sensitizing	-
Potential chronic health Mutagenicity	<u>effects</u>			
Product/ingredient nam	e	Test	Experiment	Result
diiron trioxide		Ames test	Experiment: In v Subject: Bacteria	5
Chronic effects	:	Repeated or prolonge respiratory irritation.	d inhalation of dust m	nay lead to chronic

# **SECTION 12: Ecological information**

12.1 Toxicity						
Product/ingredient name		Test	Result		Species	Exposure
diiron trioxide		ISO 8192	Acute EC50 >10000 mg/l	-	Micro- organism - activated sludge	3 hours
		OECD 202 <i>Daphnia</i> sp. Acute Immobilization Test	Acute EC50 >100 mg/l	-	Daphnia - Daphnia magna	48 hours
		-	Acute LC0 >50000 mg/L	-	Fish - Danio rerio	96 hours
Conclusion/Summary	: No	ot available.				
12.2 Persistence and degrad	ability	,				
Conclusion/Summary	: No	ot available.				
12.3 Bioaccumulative potent	ial					
Not available.						
12.4 Mobility in soil						
Soil/water partition coefficient (Koc)	: No	ot available.				
Mobility	: No	ot available.				
12.5 Results of PBT and vPvB assessment						
PBT	: No	ot applicable.				
vPvB	: No	ot applicable.				
12.6 Other adverse effects						
Other adverse effects	: No	ot available.				
Remarks		<ul> <li>No known significant effects or critical hazards. Iron oxide is an inorganic pigment potentially no polluter. LXS</li> </ul>			de is an	

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
<u>Packaging</u>	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Date o	of issue
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**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

#### Hazard notes:

Assessment

Not dangerous cargo. Keep separated from foodstuffs.

### **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
15.2 Chemical Safety	: Not applicable.

## **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
<u>History</u>		
Date of issue	:	2011-03-25
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Indicates information that has changed from previously issued version.

Notice to reader

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# SAFETY DATA SHEET

Chrome Oxide Green

### 05601126

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier	
Product name	:🗭hrome Oxide Green
REACH Substance Name	: chromium oxide
<b>REACH Registration number</b>	: 01-2119433951-39-0000
1.2 Relevant identified uses of	the substance or mixture and uses advised against
Suitable uses	: 🗭 lorants (pigments and dyestuffs), inorganic
1.3 Details of the supplier of the	e safety data sheet
Supplier	: Kreidezeit Naturfarben GmbH
	Kassemuehle 3, D-31196 Sehlem, Germany, phone: +49-(0)5060-6080650, E-mail: info@kreidezeit.de
1.4 Emergency telephone number	: +49-(0)5060-6080650, Kreidezeit Naturfarben GmbH (only during opening times)

### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to R	ec	gulation (EC) No. 1272/2008 [CLP/GHS]
Classification	: Not classified.	
Classification according to D	ire	ective 67/548/EEC [DSD]
Classification 2.2 Label elements	:	Not classified.
		Netennliechle
Hazard pictograms		Not applicable.
Signal word	:	No signal word.
Hazard statements	:	No known significant effects or critical hazards.
Precautionary statements		
Prevention	:	Not applicable.
Response	:	Not applicable.
Storage	:	Not applicable.
Disposal	:	Not applicable.
2.3 Other hazards		
Other hazards which do not result in classification	:	Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

# **SECTION 3: Composition/information on ingredients**

Product definition (REACH)	: Mono-constituent substance
	$\overline{\mathbf{c}}$ r2O3

			Clas	sification
Product/ingredient name	Identifiers	%	67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]
¢hromium oxide	REACH #: 01- 2119433951-39 EC: 215-160-9 CAS: 1308-38-9	98.5 - 99.5	Not classified.	Not classified.
			See section 16 for the full text of the R- phrases declared above	See Section 16 for the full text of the H statements declared above.

Occupational exposure limits, if available, are listed in Section 8.

### **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	No special measures required.
Skin contact	No special measures required.
Eye contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
4.2 Most important symptoms	and effects, both acute and delayed

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	: In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	: None known.
5.2 Special hazards arising fi	rom the substance or mixture

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Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	: Kvoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for e	containment and cleaning up
Small spill	: Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	: See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# SECTION 7: Handling and storage

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific solutions	: Not available.
Date of issue	: 2011-10-11

# **SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

Ingredient name				exposure limits	6	
chromium oxide	<b>EU OEL (Europe, 12/2009).</b> TWA: 2 MG/M3 8 hour(s).					
Derived effect levels	5					
Ingredient name enromium oxide	<b>Type</b> DNEL DNEL DNEL		<b>Exposure</b> Short term Inhalation Long term Inhalation Long term Inhalation	<b>Value</b> 2 mg/m³ 0,5 mg/m³ 0,5 mg/m³	Population Workers Workers Consumers	Local Local
Conclusion/Summar	ry	:	Not available.			
Predicted effect con	centratior	<u>ıs</u>				
Ingredient name Ør Ⅲ	Type PNEC PNEC PNEC PNEC PNEC PNEC PNEC		<b>Compartment Detail</b> soil Sewage Treatment Plant Marine water sediment Marine water Intermittent release. Fresh water sediment Fresh water	Value 3,2 mg/kg dwt 10 mg/l 1,31 mg/kg dwr 0,0047 mg/l 0,0047 mg/l 18,2 mg/kg dwr 0,0047 mg/l	-	tail
Conclusion/Summa	ry	:	Not available.			
Conclusion/Summan Recommended mon procedures	-	:	Not available. If this product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n the determination of ha	or biological me ness of the vent ecessity to use r should be mad assessment of ational guidance	onitoring may ilation or othe espiratory pro e to Europea f exposure by e documents	v be required to er control otective n Standard EN inhalation to
Recommended mon procedures	itoring	:	This product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n	or biological me ness of the vent ecessity to use r should be mad assessment of ational guidance	onitoring may ilation or othe espiratory pro e to Europea f exposure by e documents	v be required to er control otective n Standard EN inhalation to
Recommended mon procedures	itoring	:	This product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n	or biological me ness of the vent ecessity to use r should be mad assessment of ational guidance	onitoring may ilation or othe espiratory pro e to Europea f exposure by e documents	v be required to er control otective n Standard EN inhalation to
Recommended mon procedures 8.2 Exposure contro	itoring Is neasures	:	This product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n the determination of ha	or biological me ness of the vent ecessity to use r should be mad assessment of ational guidance	onitoring may ilation or othe espiratory pro e to Europea f exposure by e documents	v be required to er control otective n Standard EN inhalation to
Recommended mon procedures 8.2 Exposure contro <u>Risk management m</u>	itoring Is <u>neasures</u> sure contr	: ols	This product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n the determination of ha	e or biological me ecessity to use r e should be mad e assessment of ational guidance azardous substa e ventilation. If u mist, use proces ineering controls	onitoring may illation or other espiratory pro- e to Europea exposure by e documents nces.	to be required to er control otective n Standard EN inhalation to for methods for hs generate dus , local exhaust ker exposure to
Recommended mon procedures 8.2 Exposure contro <u>Risk management m</u> <u>Occupational expos</u>	itoring Is <u>neasures</u> <u>sure contr</u> es	: ols :	<ul> <li>If this product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n the determination of hat</li> <li>If se only with adequate fumes, gas, vapour or n ventilation or other eng</li> </ul>	e or biological me ecessity to use r e should be mad e assessment of ational guidance azardous substa e ventilation. If u mist, use proces ineering controls	onitoring may illation or other espiratory pro- e to Europea exposure by e documents nces.	to be required to er control otective n Standard EN inhalation to for methods for hs generate dus , local exhaust ker exposure to
Recommended mon procedures 8.2 Exposure contro <u>Risk management m</u> <u>Occupational expos</u> Technical measure	itoring ls neasures sure contr es measures	: ols :	<ul> <li>If this product contains workplace atmosphere determine the effective measures and/or the n equipment. Reference 689 for methods for the chemical agents and n the determination of hat</li> <li>If se only with adequate fumes, gas, vapour or n ventilation or other eng</li> </ul>	e or biological me ness of the vent ecessity to use r e should be mad e assessment of ational guidance azardous substa e ventilation. If u mist, use proces ineering controls below any record	onitoring may ilation or othe respiratory pro- e to Europea f exposure by e documents nces. user operation as enclosures s to keep wor mmended or	to be required to er control otective n Standard EN inhalation to for methods for s generate dus , local exhaust ker exposure to

Ingredient name	Occupational exposure limits
Eye protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields
Skin protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Hygiene measures	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Environmental exposure of	<u>controls</u>
Technical measures	: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

General information	
<u>Appearance</u>	
Physical state :	Solid. [powders]
Colour	Green.
Odour	Odourless.
Important health, safety and en	vironmental information
рН :	<b>5′</b> to 7 [Conc. (% w/w): 5%]
Boiling point :	<mark>#</mark> 000 °C (1013 hPa)
Melting point :	2435°C (4415°F)
Density :	5,5 kg/L (20 °C)
Solubility :	Ø,00000313 Cr Ⅲ g/l (water, pH 6)
9.2 Other information	

No additional information.

# **SECTION 10: Stability and reactivity**

reactions 10.4 Conditions to avoid Date of issue	:	will not occur. No specific data. 2011-10-11	Page: 5/9
10.2 Chemical stability 10.3 Possibility of hazardous		The product is stable. Under normal conditions of storage and use, hazardous re	eactions
10.1 Reactivity	:	No specific test data related to reactivity available for this p its ingredients.	product or

10.5 Incompatible materials	: No specific data.
10.6 Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

Potential acute health e	0				
Eye contact	: Ехро			ntrations above	
	recor	mmended e	xposure lim	its may cause i	rritation of the eyes.
Acute toxicity					
Product/ingredient name	Result	Species	Dose	Exposure	Test
chromium oxide	LD50 - Oral	Rat	>5000 mg	g/kg -	OECD 401 Acute Oral Toxicity
chromium oxide	LC50 - Inhalation Dusts and mists	Rat	>5,41 mg	/I 4 hours	OECD 403 Acute Inhalation Toxicity
Irritation/Corrosion					
Skin	: chror	mium oxide:	Non-irritating	g	
Eyes	: chror	mium oxide:	Non-irritating	g	
Respiratory	: chror	mium oxide:	Non-irritating	g	
<u>Sensitiser</u>					
Product/ingredient	Route of	Species	s R	esult	Test description
name	exposure				
chromium oxide	skin	Guinea p	•	ot sensitizing	406 Skin Sensitization
Skin	: chror	mium oxide:	Not sensitizi	ing	
Respiratory	: chror	mium oxide:	Not sensitizi	ing	
Potential chronic health	<u>n effects</u>				
Mutagenicity					
Product/ingredient na	me Test		Ex	periment	Result
¢ħromium oxide		D 471 Bacte erse Mutation		xperiment: In vi ubject: Bacteria	
Chronic effects		eated or pro ratory irritati	•	lation of dust m	ay lead to chronic

# SECTION 12: Ecological information

12.1 Toxicity				
Product/ingredient name	Test	Result	Species	Exposure
chromium oxide	ISO 8192	Acute EC50 >10000 mg/l	- Bacteria - Activated sludge	3 hours
	ISO 7346-1	Acute LC50 >10000 mg/L Fresh water	- Fish - Danio rerio	96 hours
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Product/ingredient name Conclusion/Summary 12.2 Persistence and degrad		Result	Species	Exposure
Conclusion/Summary 12.3 Bioaccumulative potent	: Not available. tial			
Not available.				
12.4 Mobility in soil Soil/water partition coefficient (K <sub>oc</sub> )	: Not available.			
Mobility	: Not available.			
12.5 Results of PBT and vPv	B assessment			
РВТ	: Not applicable.			
vPvB	: Not applicable.			
12.6 Other adverse effects				
Other adverse effects	: Not available.			
AOX	•	not contain organicall AOX value in waste wa		ns which
Remarks	: No known signific	ant effects or critical h	azards.	

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

<u>Product</u>	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
Packaging	
Methods of disposal	Phe generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	<b>F</b>
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No	No
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

**14.7 Transport in bulk according to Annex II** : Not available. of MARPOL 73/78 and the IBC Code

#### Hazard notes:

Not dangerous cargo. Keep dry. Keep separated from foodstuffs.

### **SECTION 15: Regulatory information**

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture,	: Not applicable.
placing on the market and use of certain dangerous substances,	
mixtures and articles	

**15.2 Chemical Safety** : Not applicable. Assessment

### **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
History		
Date of issue	:	2011-10-11
Date of previous issue	:	2009-03-09
Version	:	3

✓ Indicates information that has changed from previously issued version.

#### Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Brown 610

### 00005517

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier			
Product name	: Ironoxide Brown 610		
1.2 Relevant identified uses of the substance or mixture and uses advised against			
Suitable uses	: Colorants (pigments and dyestuffs), inorganic		
1.3 Details of the supplier of the safety data sheet			
Supplier	: Kreidezeit Naturfarben GmbH, Kassemuehle 3, D-31196 Sehlem, Germany, phone: +49-(0)5060-6080650, E-mail: info@kreidezeit.de		
1.4 Emergency telephone number	: +49-(0)5060-6080650 (only during opening times)		

# **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture			
Classification according to R	ec	ulation (EC) No. 1272/2008 [CLP/GHS]	
Classification	:	Not classified.	
Classification according to D	ire	ective 1999/45/EC [DPD]	
Classification	:	Not classified.	
2.2 Label elements			
Hazard pictograms	:	Not applicable.	
Signal word	:	No signal word.	
Hazard statements	:	No known significant effects or critical hazards.	
Precautionary statements			
Prevention	:	Not applicable.	
Response	:	Not applicable.	
Storage	:	Not applicable.	
Disposal	:	Not applicable.	
2.3 Other hazards			
Other hazards which do not	:	Not available.	
result in classification			

## **SECTION 3: Composition/information on ingredients**

Product definition (REACH) : Mixture

Mixture of: Fe2O3 , Fe3O4 and FeO(OH)

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

Date of issue

### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

Inhalation	Nove exposed person to fresh air. Keep person warm and at re not breathing, if breathing is irregular or if respiratory arrest occu- provide artificial respiration or oxygen by trained personnel. Get nedical attention if symptoms occur. If unconscious, place in ecovery position and get medical attention immediately. Mainta open airway. Loosen tight clothing such as a collar, tie, belt or vaistband.	Irs,
Ingestion	lo special measures required.	
Skin contact	lo special measures required.	
Eye contact	mmediately flush eyes with plenty of water, occasionally lifting the per and lower eyelids. Check for and remove any contact len Continue to rinse for at least 10 minutes. Get medical attention ritation occurs.	ses.
4.2 Most important symptoms and offects, both acute and delayed		

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

# **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising from	om	the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

# **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
6.3 Methods and materials for a	containment and cleaning up
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
6.4 Reference to other sections	See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

# **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	: No special measures required.
7.3 Specific end use(s)	
Recommendations	: Not available.
Industrial sector specific solutions	: Not available.

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters Exposure limit values

: Not available.

Recommended monitoring procedures	:	If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.	
8.2 Exposure controls			
<u>Risk management measures</u>			
Occupational exposure control	ols		
Technical measures		No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.	
Personal protection measures			
Respiratory protection	:	Recommended: Dust-protection mask	
Hand protection	:	Recommended: gloves	
Eye protection	:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Recommended: safety glasses with side-shields	
Skin protection	:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.	
Hygiene measures	:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.	
Environmental exposure controls			
Technical measures	:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.	

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

General information	
<u>Appearance</u>	
Physical state :	Solid. [powders]
Colour :	Brown.
Odour :	Odourless.
Important health, safety and env	vironmental information
pH :	4 to 7 [Conc. (% w/w): 5%]
Melting point :	>1000°C (>1832°F)
Density :	4,4 kg/L (20 °C)
Solubility :	Insoluble in the following materials: cold water
9.2 Other information	
Γ	

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	At temperatures above 80 °C the product may become unstable and oxidise. This generates additional heat which, under unfavourable conditions, may result in the combustion of flammable materials. The product should therefore not be stored near heat sources.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

#### **11.1 Information on toxicological effects**

#### Acute toxicity

Product/ingredient name	Result		Species	Dose	Exposure	Test
BAYFERROX 610	LD50 <sup>*</sup> Oral	*	Rat	>5000 mg/k	g -	-
*Test results on an anal	ogous produc	ct				
Acute toxicity estimate	<u>es</u>					
Not available.						
Irritation/Corrosion						
Skin	: Nor	n-i	rritating *Te	est results on a	an analogous p	product
Eyes	: Nor	n-i	rritating *Te	est results on a	an analogous p	product

# **SECTION 12: Ecological information**

Date of issue	: 2012-03-02	Page: 5/8
12.5 Results of PBT and v	/PvB assessment	
Mobility	: Not available.	
Soil/water partition coefficient (Koc)	: Not available.	
12.4 Mobility in soil		
Not available.		
12.3 Bioaccumulative pot	ential	
Conclusion/Summary	: Not available.	
12.2 Persistence and deg	radability	
Conclusion/Summary	: Not available.	
12.1 Toxicity		

Not available.

PBT vPvB		Not applicable. Not applicable.
12.6 Other adverse effects		
Other adverse effects	:	Not available.
AOX	:	The product does not contain organically bound halogens which could lead to an AOX value in waste water.
Remarks	:	No known significant effects or critical hazards.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

. .

Product	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	<ul> <li>This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways drains and sewers.</li> </ul>

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG		
14.1 UN number	-	-	-	-	
14.2 UN proper shipping name	-	-	-	-	
14.3 Transport hazard class(es)/Marks	-	-	-	-	
Date of issue	:	2012-03-02		Pa	age: 6/8

14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No	No
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

Hazard notes:

Not dangerous cargo. Keep separated from foodstuffs.

# **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

**15.2 Chemical Safety**: Not applicable.Assessment

## **SECTION 16: Other information**

Abbreviations and acronyms :	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
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#### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification		Justification
History		
Date of issue	: 2012-03-02	
Date of previous issue	: 2011-02-07	
Version	: 3	
Date of issue	: 2012-03-02	Page: 7/8

✓ Indicates information that has changed from previously issued version.

#### Notice to reader

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet and its Annex [if required according to Regulation (EC) 1907/2006 (REACh)] is to describe the products in terms of their safety requirements. The given details do not imply any guarantee concerning the composition, properties or performance.

# SAFETY DATA SHEET

Ironoxide Black

### 00249394

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier		
Product name	: Ironoxide Black	
<b>REACH Substance Name</b>	: triiron tetraoxide	
<b>REACH Registration number</b>	: 01-2119457646-28-0000	
1.2 Relevant identified uses of t	the substance or mixture and uses advised against	
Suitable uses	: Colorants (pigments and dyestuffs), inorganic	
1.3 Details of the supplier of the	e safety data sheet	
Supplier	: Kreidezeit Naturfarben GmbH, Kassemuehle 3, D-31196 Sehlem, Germany, phone: +49-(0)5060-6080650, E-mail: info@kreidezeit.de	
1.4 Emergency telephone number	: +49-(0)5060-6080650 (only during opening times)	

### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]				
Classification : Not classified.				
Classification according to Directive 67/548/EEC [DSD]				
Classification	:	Not classified.		
2.2 Label elements				
Hazard pictograms	:	Not applicable.		
Signal word	:	No signal word.		
Hazard statements	:	No known significant effects or critical hazards.		
Precautionary statements				
Prevention	:	Not applicable.		
Response	:	Not applicable.		
Storage	:	Not applicable.		
Disposal	:	Not applicable.		
2.3 Other hazards				
Other hazards which do not result in classification	:	Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.		

### **SECTION 3: Composition/information on ingredients**

Product definition (REACH)

: Mono-constituent substance

Fe3O4

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

### **SECTION 4: First aid measures**

4.1 Description of first aid measures

Inhalation	: Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	: No special measures required.
Skin contact	: No special measures required.
Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

4.2 Most important symptoms and effects, both acute and delayed See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

## **SECTION 5: Firefighting measures**

5.1 Extinguishing media Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO <sub>2</sub> .
Unsuitable extinguishing media	:	None known.
5.2 Special hazards arising from	om	the substance or mixture
Hazards from the substance or mixture	:	No specific fire or explosion hazard.
Hazardous combustion products	:	No specific data.
5.3 Advice for firefighters		
Special precautions for fire- fighters	:	Not applicable.
Special protective equipment for fire-fighters	:	Fire-fighters should wear appropriate protective equipment and self- contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Date of issue

## **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	: No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.			
6.2 Environmental precautions	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).			
6.3 Methods and materials for	containment and cleaning up			
Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.			
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.			
6.4 Reference to other sections	<ul> <li>See Section 1 for emergency contact information.</li> <li>See Section 8 for information on appropriate personal protective equipment.</li> <li>See Section 13 for additional waste treatment information.</li> </ul>			

# SECTION 7: Handling and storage

7.1 Precautions for safe handling	:	No special measures required.
7.2 Conditions for safe storage, including any incompatibilities	:	Do not store above the following temperature: 80°C (176°F). No special measures required.
7.3 Specific end use(s)		
Recommendations	:	Not available.
Industrial sector specific solutions	:	Not available.

# **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

Exposure limit values		: Not available.				
Derived effect lev	els					
Ingredient name Triron tetraoxide	<b>Type</b> DNEL DNEL	<b>Exposure</b> Long term Inhalation Long term Inhalation	•	Population Workers Workers	<b>Effects</b> Local Local	<b>Remarks</b> Inhalable Dust Respirable dust
Date of issue		: 2012-04-03				Page: 3/8

Conclusion/Summary	:	DNEL : Dus	st Inhalable 10	) mg/m³ , Respirable d	ust 3 mg/m³
Predicted effect concent	rations				
Ingredient name Type	Com Detai	oartment I	Value	Method Detail	Remarks
Conclusion/Summary	:	PNECs : No	ot applicable.		
Recommended monitorin procedures	ig :	workplace determine measures equipment 689 for me chemical a	atmosphere of the effectiven and/or the ne . Reference s thods for the igents and na	ngredients with exposur or biological monitoring ess of the ventilation of cessity to use respirato should be made to Eur assessment of exposu tional guidance docum ardous substances.	r may be required to r other control ory protective opean Standard EN re by inhalation to
8.2 Exposure controls					
Risk management measu					
Occupational exposure					
Technical measures	:	fumes, gas ventilation	s, vapour or m or other engir	ventilation. If user ope list, use process enclos beering controls to keep below any recommende	sures, local exhaust p worker exposure to
Personal protection measured	sures			-	-
Respiratory protection	:	Recomme	nded: Dust-p	rotection mask	
Hand protection	:	Recomme	nded: gloves		
Eye protection	:	used when exposure to conditions goggles.	a risk assess o liquid splash cause high du	ng with an approved sta ment indicates this is r nes, mists, gases or du ust concentrations to be glasses with side-shield	necessary to avoid sts. If operating e produced, use dust
Skin protection	:	based on t	he task being	pment for the body sho performed and the risk list before handling this	ks involved and should
Hygiene measures	:	products, b end of the remove po clothing be	before eating, working perio tentially conta fore reusing.	and face thoroughly aft smoking and using the d. Appropriate techniq aminated clothing. Was Ensure that eyewash e workstation location.	e lavatory and at the ues should be used to sh contaminated
Environmental exposure	control	<u>s</u>			
Technical measures	:	checked to environme scrubbers,	ensure they ntal protection filters or engi	on or work process equicomply with the require n legislation. In some on neering modifications t sary to reduce emission	ements of cases, fume o the process

# **SECTION 9: Physical and chemical properties**

#### 9.1 Information on basic physical and chemical properties

#### General information

<u>Appearance</u>	
Physical state	: Solid. [powders]
Colour	: Black.
Odour	: Odourless.
Important health, safety and	environmental information
рН	: 4 to 8 [Conc. (% w/w): 5%]
Melting point	: 1597°C (2906,6°F)
Density	: 5,17 kg/L (20 °C)
Solubility	: <mark>≮0</mark> ,000001 g/l (water)
Decomposition	: >80°C
temperature	

#### 9.2 Other information

No additional information.

# **SECTION 10: Stability and reactivity**

10.1 Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	:	The product is stable.
10.3 Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	:	At temperatures above 80 °C the product may become unstable and oxidise. This generates additional heat which, under unfavourable conditions, may result in the combustion of flammable materials. The product should therefore not be stored near heat sources.
10.5 Incompatible materials	:	No specific data.
10.6 Hazardous decomposition products	:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

# **SECTION 11: Toxicological information**

11.1 Information on tox	icological effe	cts			
Potential acute health e	effects				
Eye contact				entrations above s nits may cause irr	tatutory or itation of the eyes.
Acute toxicity					
Product/ingredient name	Result	Species	Dose	Exposure	Test
triiron tetraoxide	LD50 - Oral	Rat	>5000 m	ig/kg -	-
Irritation/Corrosion					
Skin	: Non-	-irritating . T	est results	on an analogous	product .
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Eyes	: Non-irritating . Test results on an analogous product .				
<u>Sensitiser</u>					
Product/ingredient name	Route exposi	en openee	Result	Test description	
triiron tetraoxide	skin	Guinea pig	Not sensitizing	-	
Potential chronic health Mutagenicity	<u>effects</u>				
Product/ingredient nam	ne	Test	Experiment	Result	
triiron tetraoxide		Ames test	Experiment: In vi Subject: Bacteria	•	
Chronic effects	:	Repeated or prolonge respiratory irritation.	d inhalation of dust m	ay lead to chronic	

# **SECTION 12: Ecological information**

12.1 Toxicity					
Product/ingredient name	Test	Result		Species	Exposure
triiron tetraoxide	EU C.2	Acute EC0 >10000 mg/l	-	Daphnia - Daphnia magna	48 hours
	OECD 203 Fish, Acute Toxicity Test	Acute LC0 >10000 mg/l	-	Fish - Danio rerio	96 hours
Conclusion/Summary :	Not available.				
12.2 Persistence and degradat	oility				
Conclusion/Summary :	Not available.				
12.3 Bioaccumulative potentia	l				
Not available.					
12.4 Mobility in soil					
Soil/water partition : coefficient (K <sub>oc</sub> )	Not available.				
Mobility	Not available.				
12.5 Results of PBT and vPvB	assessment				
PBT :	Not applicable.				
vPvB :	Not applicable.				
12.6 Other adverse effects					
Other adverse effects :	Not available.				
Remarks :	No known significa	int effects or critic	cal h	azards.	

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

<u>Product</u>	
Methods of disposal	: Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. For disposal within the EC, the appropriate code according to the European Waste List (EWL) should be used. It is among the tasks of the polluter to assign the waste to waste codes specific to industrial sectors and processes according to the European Waste List (EWL).
Hazardous waste	<ul> <li>Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.</li> </ul>
Packaging	
Methods of disposal	: The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions	: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

# **SECTION 14: Transport information**

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-	-	-	-
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)/Marks	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No	No
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

Date of	issue
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**14.7 Transport in bulk according to Annex II** : Not available. **of MARPOL 73/78 and the IBC Code** 

#### Hazard notes:

Not dangerous cargo. Keep separated from foodstuffs.

## **SECTION 15: Regulatory information**

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	: Not applicable.
2 Chemical Safety	· Not applicable

# **15.2 Chemical Safety** : Not applicable. **Assessment**

# **SECTION 16: Other information**

Abbreviations and acronyms	:	ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
<u>History</u>		
Date of issue	:	2012-04-03
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Version	:	5

Indicates information that has changed from previously issued version.

#### Notice to reader

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