according to REACH Regulation 1907/2006 as amended by

UK REACH Regulations SI 2019/758

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

1.1 **Product identifier**

1.2 · **Trade name**: **Pigment Additive**

· **Index number**: 000000000000510703

### · 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available

**Application of the substance / the mixture**

Colorants (pigments and dyestuffs) inorganic

· **Uses advised against** Food contact, additive.

### · 1.3 Details of the supplier of the safety data sheet

### · Supplier

: Concrete Patterning Supplies Limited,
Pearson Street,
Wolverhampton
, WV2 4HP
tel +44(0)1902 310355 (not 24 hour) email: info@creteprint.com

· Further information obtainable from: Contact us at the above office.

· Emergency telephone number: Contact us as above (Not 24 hours)

---

## SECTION 2 : Hazards identification

### 2.1 Classification of the substance or mixture

**· Classification according to Regulation (EC) No 1272/2008 as amended by Regulation,UK SI 2019/720**

**Not a hazardous substance or mixture**

### 2.2 Label elements

**Labelling (REGULATION (EC) No 1272/2008) as amended by GB-CLP Regulation, UK SI 2019/720, and UK SI 2020/1567)**

(cont. of page 1)

· **Trade name**: **Pigment Additive**

No hazard pictogram, no signal word, no hazard statement, no precautionary statement(s) required.

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

---

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : contains $Fe_2O_3$

$Fe_3O_4$ and FeO(OH)

Components

Substances with a workplace exposure limit:

| Chemical name | CAS-No<br>EC-No<br>Index-No<br>Registration number | Classification | Concentration (%w/w) |
|---|---|---|---|
| Diiron trioxide | 1309-37-1<br>215-168-2<br>UK-01-5722142175-3-0001 | | >=90-<=100 |
| Triiron tetraoxide | 1317-61-9<br>215-277-5<br>UK-01-4172695884-0-0001 | | >=90-<=100 |
| Iron hydroxide oxide yellow | 51274-00-1<br>257-098-5 | | >=90-<=100 |
| | | | |

(cont. of page 2)

· **Trade name**: **Pigment Additive**

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

| | |
|---|---|
| General advice : | :Consult a physician.<br>Do not leave the victim unattended.<br>Move out of dangerous area.<br>Show this safety data sheet to the doctor in attendance. |
| Protection of first-aiders : | No action shall be taken involving any personal risk or without suitable training |
| If inhaled : | Remove victim to fresh air and keep at rest in a position comfortable for breathing.<br>If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. If unconscious, place in recovery position and get medical attention immediately. Maintain open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, call a physician. |
| In case of skin contact : | Wash off with plenty of water. Continue to rinse for at least 10 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. If symptoms persist, call a physician. |

 (cont. of page 3)

· **Trade name**: **Pigment Additive**

In case of eye contact : Immediately flush with plenty of water, occasionally lifting the upper and lower eyelids.
Continue to rinse for at least 10 minutes.
Keep eye wide open while rinsing.
Remove contac lenses.
Protect unharmed eye. If eye irritation persists, consult a specialist.
Get medical attention if symptoms appear.

If swallowed : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, call a physician.

## 4.2 Most important symptoms and effects, both acute and delayed

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

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

(cont. of page 4)

· **Trade name**: **Pigment Additive**

## 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically

## 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**

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses. Hazardous combustion products : The product itself does not burn.

**5.3 Advice for firefighters**

Special protective equipment for Firefighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode

Further information : Standard procedure for chemical fires. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

(cont. of page 5)

· **Trade name**: **Pigment Additive**

## 5.3 Advice for firefighters cont.

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Collect contaminated fire extinguishing water separately.
This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

# SECTION 6: Accidental release measures

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : No action shall be taken involving any personal risk or without suitable training.
Keep unnecessary and unprotected personnel from entering.
Do not touch or walk through spilt material.
Avoid breathing dust. Provide adequate ventilation.
Avoid dust formation.
In case of inadequate ventilation wear respiratory protection.
Use personal protective equipment.

**6.2 Environmental precautions**

Environmental precautions : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
If the product contaminates rivers and lakes or drains inform respective authorities.

(cont. of page 6)

· **Trade name**: **Pigment Additive**

**6.3 Methods and material for containment and cleaning up**

**Methods for cleaning up** : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. Move containers from spill area. Stop leak if safe to do so. Dispose of wastes in an approved waste disposal facility.

**6.4 Reference to other sections**

For personal protection see section 8., For disposal considerations see section 13.

---

## SECTION 7: Handling and storage

### · 7.1 Precautions for safe handling

Advice on safe handling : For personal protection see section 8.
Avoid contact with skin and eyes.
Provide sufficient air exchange and/or exhaust in work rooms.
In case of insufficient ventilation, wear suitable respiratory equipment.
Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Dispose of rinse water in accordance with local and national regulations

(Cont. of page 7)

· **Trade name**: **Pigment Additive**

## 7.1 Precautions for safe handling cont.

Advice on protection against

fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures : General industrial hygiene practice.

When using do not eat, drink or smoke. Wash face, hands and any exposed skin thoroughly after handling. Wash contaminated clothing before reusing. Remove contaminated clothing and protective equipment before entering eating areas.

## 7.2 Conditions for safe storage, including any incompatibilities.

Requirements for storage

areas and containers : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage : No materials to be especially mentioned.

Further information on storage stability : Keep in a dry place.

No decomposition if stored and applied as directed.

(Cont. of page 8)

· **Trade name**: **Pigment Additive**

## SECTION 8: Exposure controls/personal protection

8.1 Control parameters Occupational Exposure Limits

| Components | CAS-No. | Value type(Form of exposure) | Control parameters | Basis |
|---|---|---|---|---|
| Diiron trioxide | 1309-37-1 | TWA (inhalable dust) | 10 mg/m3 | GB EH40 |
| | | TWA (Respirable dust) | 4 mg/m3 | GB EH40 |
| Triiron tetraoxide | 1317-61-9 | TWA (fumes) | 5mg/m3 (Iron) | GB EH40 |
| | | STEL (Fumes) | 10mg/m3 (iron) | GB EH40 |
| Iron hydroxide oxide yellow | 51274-00-1 | TWA (fumes) | 5mg/m3 (Iron) | GB EH40 |
| | | STEL (Fumes) | 10mg/m3 (iron) | GB EH40 |
| | | | | |

### Derived No Effect level (DNEL)

| Substance name | End Use | Exposure routes | Potential health effects | Value |
|---|---|---|---|---|
| Diiron trioxide | Workers | inhalation | Long-term exposure Local effects | 10 mg/m3 |
| Triiron tetraoxide | Workers | inhalation | Systemic effects Long-term exposure | 10 mg/m3 |
| | Workers | inhalation | Long-term exposure Local effects | 10 mg/m3 |

8.2 Exposure controls

Engineering measures

This information is not available.

Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

 (cont. of page 9)

8.2 Exposure controls cont.

Hand protection

Wearing time : < 60 min Material

: Leather gloves

Remarks : The suitability a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.

Skin and body protection : Impervious clothing Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Additional body garments should be used (e.g. sleevelets, apron, disposable suit etc.), based on the task being Performed.

Respiratory protection : Dust-protection mask if there is a risk of dust formation.

Filter type : P1 filter

**Environmental exposure controls**

Water : The product should not be allowed to enter drains, water courses or the soil.

---

## SECTION 9 : Physical and chemical properties

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

Appearance : powder

Physical state : solid

Colour : brown

Odour : odourless Odour

(cont. of page 10)

· **Trade name**: **Pigment Additive**

| | |
|---|---|
| Threshold | : No data available |
| Melting point/range | : > 1,000 °C |
| Boiling point/boiling range | : No data available |
| Upper explosion limit / Upper flammability limit | : No data available |
| Lower explosion limit / Lower flammability limit | : No data available |
| Flash point | : Not applicable |
| | Not applicable |
| Decomposition temperature | : > 80 °C |
| pH | : 4 - 7 |
| | Concentration : 5 % |
| Viscosity | |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : No data available |
| Solubility(ies) | |
| Water solubility | : insoluble |
| Solubility in other solvents | : No data available |
| Partition coefficient: | |
| n-octanol/water | : No data available |
| Vapour pressure | : Not applicable |
| Relative density | : No data available |
| Density | : 4.4 g/cm3 (20 °C) |
| Bulk density | : > 500 kg/m3 |

**9.2 Other information**

| | |
|---|---|
| Explosives | : No data available |
| Oxidizing properties | : No data available |
| Flammable solids Burning number | : No data available |
| Self-ignition | : No data available |
| Evaporation rate | : No data available |
| Miscibility with water | : immiscible |

## 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 chemically stable.

**10.3 Possibility of hazardous reactions**

Hazardous reactions : No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid**

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**

Materials to avoid : No specific data. No specific data.

(cont. of page 12)

· **Trade name**: **Pigment Additive**

**10.6 Hazardous decomposition products**

Hazardous decomposition

Products : No decomposition if stored and applied as directed.

---

## SECTION 11: Toxicological information

11.1 Information on toxicological effects Information on likely

routes of exposure : Inhalation

Eye contact

Skin contact

**Acute toxicity**

Not classified based on available information.

Product:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Components:

**diiron trioxide**:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

Method: OECD Test Guideline 401

GLP: No information available.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.05 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: The substance or mixture has no acute inhalation

Toxicity Remarks: Dosage caused no mortality

(cont. of page 13)

· **Trade name**: **Pigment Additive**

**triiron tetraoxide:**

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

**iron hydroxide oxide yellow:**

Acute oral toxicity : LD50 (Rat, male): > 10,000 mg/kg

GLP: No information available.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: The substance or mixture has no acute inhalation toxicity

Remarks: Dosage caused no mortality

Test results on an analogous product

**iron hydroxide oxide yellow:**

Acute oral toxicity : LD50 (Rat, male): > 10,000 mg/kg

GLP: No information available.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

Assessment: The substance or mixture has no acute

(cont. of page 14)

· **Trade name**: **Pigment Additive**

**iron hydroxide oxide yellow:** cont.

inhalation toxicity Remarks: Dosage caused no mortality Test results on an analogous product

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

**diiron trioxide:**

Species : Rabbit

Exposure time : 4 h

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

**triiron tetraoxide**:

Species : Rabbit

Exposure time : 4 h

Method : OECD Test Guideline 404

Result : No skin irritation

GLP : yes

**iron hydroxide oxide yellow:**

Species : Rabbit

Exposure time : 24 h

Result : No skin irritation

GLP : no

(cont. of page 15)

· **Trade name**: **Pigment Additive**

**Serious eye damage/eye irritation**

Not classified based on available information.

**Components:**

**diiron trioxide:**

Species : Rabbit

Exposure time : 24 h

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

**triiron tetraoxide:**

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

GLP : yes

**iron hydroxide oxide yellow:**

Species : Rabbit

Result : No eye irritation

GLP : no

**Respiratory or skin sensitisation**

**Skin sensitisation**

Not classified based on available information.

**Respiratory sensitisation**

Not classified based on available information.

(cont. of page 16)

· **Trade name**: **Pigment Additive**

**Components:**

**diiron trioxide:**

Test Type : Maurer optimisation test

Exposure routes : Dermal

Species : Guinea pig

Result : Did not cause sensitisation on laboratory animals.

GLP : No information available.

**triiron tetraoxide:**

Exposure routes : Skin contact

Species : Guinea pig

Result : Did not cause sensitisation on laboratory animals.

GLP : no

**iron hydroxide oxide yellow:**

Test Type : Maurer optimisation test

Exposure routes : Skin contact

Species : Guinea pig

Result : Did not cause sensitisation on laboratory animals.

GLP : no

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**diiron trioxide:**

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

(cont. of page 17)

· **Trade name**: **Pigment Additive**

Method: OECD Test Guideline 471

Result: negative

GLP: No information available.

Remarks: Test results on an analogous product

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

GLP: yes

Remarks: Test results on an analogous product

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Remarks: Test results on an analogous product

Genotoxicity in vivo : Test Type: comet assay

Species: Rat (male)

Application Route: intratracheal

Exposure time: 24 h

(cont. of page 18)

· **Trade name**: **Pigment Additive**

Dose: 3,75 mg/kg bw

Result: negative

Test Type: Chromosomal aberration assay

Species: Rat (female)

Application Route: Oral

Exposure time: 24 h

Dose: 2000 mg/kg bw

Result: negative

**triiron tetraoxide:**

Genotoxicity in vitro : Test system: Bacteria

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

GLP: yes

(cont. of page 19)

· **Trade name**: **Pigment Additive**

**. iron hydroxide oxide yellow:**

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: No information available.

Remarks: Test results on an analogous product

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

GLP: yes

Remarks: Test results on an analogous product

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster fibroblasts

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

GLP: yes

Remarks: Test results on an analogous product

**Carcinogenicity**

Not classified based on available information.

(cont. of page 20)

· **Trade name**: **Pigment Additive**

**Components:**

**diiron trioxide:**

| | |
|---|---|
| Species | : Rat, male and female |
| Application Route | : Intraperitoneal |
| Exposure time | : 914 days |
| Dose | : 600 mg/kg body weight |
| Result | : negative |

**triiron tetraoxide:**

| | |
|---|---|
| Species | : Rat, male and female |
| Exposure time | : 914 days |
| Dose | : 600 milligram per kilogram |
| Result | : negative |

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**diiron trioxide:**

| | |
|---|---|
| Species | : Rat, male and female |
| NOAEL | : 4,7 mg/m³ |
| Application Route | : Inhalation |

(cont. of page 21)

· **Trade name**: **Pigment Additive**

**Components: (cont.)**

**diiron trioxide**

| | |
|---|---|
| Test atmosphere | : dust/mist |
| Exposure time | : 90 days |
| Number of exposures | : 5 days/week |
| Dose | : 4,7 - 16,6 - 52,1 mg/m³ |
| Method | : OECD Test Guideline 413 |
| GLP | : yes |
| Remarks | : Subchronic toxicity Test results on an analogous product |
| Species | : Rat, male |
| NOAEL | : 10,1 mg/m³ |
| Application Route | : Inhalation |
| Test atmosphere | : dust/mist |
| Exposure time | : 28 days |
| Number of exposures | : 5 days/week |
| Dose | : 10,1 - 19,7- 45,6 - 95,8 mg/m³ |
| Method | : OECD Test Guideline 412 |
| GLP : yes | |
| Remarks | : Subacute toxicity Test results on an analogous product |

**triiron tetraoxide:**

| | |
|---|---|
| Species | : Rat, male |
| LOAEL | : > 185,6 mg/m³ |
| Application Route | : Inhalation |
| Test atmosphere | : dust/mist |
| Exposure time | : 14 days |

(cont. of page 22)

· **Trade name**: **Pigment Additive**

Dose : > 185,6 mg/m³

Method : OECD Test Guideline 412

GLP : yes

Remarks : Subacute toxicity

**iron hydroxide oxide yellow:**

Species : Rat, male and female

NOAEL : 4,7 mg/m³

Application Route : inhalation (dust/mist/fume)

Exposure time : 90 days

Number of exposures : 6 hours/day

Dose : 4,7 - 16,6 - 52,1 mg/m³

Method : OECD Test Guideline 413

GLP : yes

Remarks : Subchronic toxicity Test results on an analogous product

Species : Rat, male

NOAEL : 10,1 mg/m³

Application Route : inhalation (dust/mist/fume)

Exposure time : 28 days

Number of exposures : 6 hours/day

Dose : 10,1-19,7-45,6-95,8 mg/m

Method : OECD Test Guideline 412

GLP : yes

Remarks : Subacute toxicity Test results on an analogous product

**Aspiration toxicity**

Not classified based on available information.

(cont. of page 23)

· **Trade name**: **Pigment Additive**

**SECTION 12: Ecological information**

**12.1 Toxicity**

Product:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1,000 mg/l

Exposure time: 96 h

**Components:**

diiron trioxide : Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 50,000 mg/l

Exposure time: 96 h

Analytical monitoring: no

GLP: no

Remarks: Fresh wat

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Analytical monitoring: no

Method: OECD Test Guideline 202

GLP: yes

Remarks: Fresh water

Toxicity to microorganisms : EC50 (activated sludge): > 10,000 mg/l

Exposure time: 3 h

Analytical monitoring: no

Method: ISO 8192

GLP: no

(cont. of page 24)

· **Trade name**: **Pigment Additive**

**triiron tetraoxide:**

| | |
|---|---|
| Toxicity to fish | : LC50 (Danio rerio (zebra fish)): > 100 mg/l |
| | Exposure time: 96 h |
| | Method: OECD Test Guideline 203 |
| | Remarks: nominal concentration |
| | Test results on an analogous product |
| Toxicity to daphnia and other aquatic invertebrates | : EC50 (Daphnia magna (Water flea)): > 100 mg/l |
| | End point: Immobilization |
| | Exposure time: 48 h |
| | Method: OECD Test Guideline 202 |
| | Remarks: nominal concentration |
| | Test results on an analogous product |
| Toxicity to microorganisms | : EC50 (activated sludge): > 10,000 mg/l |
| | Exposure time: 3 h |
| | Method: OECD Test Guideline 209 |
| | GLP: no |
| | Remarks: Fresh water |

**iron hydroxide oxide yellow:**

| | |
|---|---|
| Toxicity to fish | : LC50 (Danio rerio (zebra fish)): > 100,000 mg/l |
| | Exposure time: 96 h |
| | Test Type: static test |
| | Analytical monitoring: no |
| | Method: OECD Test Guideline 203 |
| | GLP: no |

Remarks: Fresh water nominal concentration



(cont. of page 25)

· **Trade name**: **Pigment Additive**

**iron hydroxide oxide yellow:** (cont.)

Toxicity to daphnia and other aquatic invertebrates : LC50 (Daphnia magna (Water flea)): >= 100 mg/l

Exposure time: 48 h

Test Type: static test

Analytical monitoring: no

Method: OECD Test Guideline 202

GLP: yes

Remarks: Fresh water nominal concentration

Toxicity to microorganisms : EC50 (activated sludge): >= 10,000 mg/l

End point: Respiration inhibition

Exposure time: 3 h

Analytical monitoring: no

Method: ISO 8192

GLP: no

Remarks: Fresh water Test results on an analogous product

## 12.2 Persistence and degradability

**Components:**

**diiron trioxide:**

Biodegradability : Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

**triiron tetraoxide:**

Biodegradability : Result: The methods for determining the biological

degradability are not applicable to inorganic substances.



(cont. of page 26)

· **Trade name**: **Pigment Additive**

**iron hydroxide oxide yellow:**

Biodegradability : Result: The methods for determining the biological degradability are not applicable to inorganic substances.

**12.3 Bioaccumulative potential**

**Components:**

**diiron trioxide:**

Partition coefficient

n octanol/water : Remarks: Not applicable

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

**Product:**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission

Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



(cont. of page 27)

· **Trade name**: **Pigment Additive**

Additional ecological information : Ecotoxicological data are not available.

No known significant effects or critical hazards

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

Product : The generation of waste should be avoided or minimised wherever possible. Where possible recycling is preferred to disposal or incineration. Product residues and uncleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. When uncleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues. Wastedisposal should be in accordance with existing federal state, provincial and or local environmental controls Dispose of as hazardous waste in compliance with local and national regulations.

Do not contaminate ponds, waterways or ditches with chemical or used container.

The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal.

---

## SECTION 14: Transport information

**14.1 UN number**

**ADN** : Not regulated as a dangerous good

**ADR** : Not regulated as a dangerous good

**RID** : Not regulated as a dangerous good

**IMDG** : Not regulated as a dangerous good

**IATA** : Not regulated as a dangerous good **14.2 UN proper shipping name**

**ADN** : Not regulated as a dangerous good

**ADR** : Not regulated as a dangerous good



 (cont. of page 28)

· **Trade name**: **Pigment Additive**

**RID** : Not regulated as a dangerous good

**IMDG** : Not regulated as a dangerous good.

**IATA** : Not regulated as a dangerous good.

**14.3 Transport hazard class(es)**

**ADN** : Not regulated as a dangerous good

**ADR** : Not regulated as a dangerous good.

**RID** : Not regulated as a dangerous good**.**

**IMDG** : Not regulated as a dangerous good.

**IATA** : Not regulated as a dangerous good.

**14.4 Packing group**

**ADN** : Not regulated as a dangerous good

**ADR** : Not regulated as a dangerous good

**RID** : Not regulated as a dangerous good

**IMDG** : Not regulated as a dangerous good

**IATA (Cargo)** : Not regulated as a dangerous good

**IATA (Passenger)** : Not regulated as a dangerous good

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

Hazard and Handling Notes : Not dangerous cargo.

Keep separated from foodstuffs.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable for product as supplied.

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· **Trade name**: **Pigment Additive**

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Not applicable

UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation : Not applicable

The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain) : Not applicable

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Council Regulation (EC) No 111/2005 laying down rules. for the monitoring of trade between the Community and third countries in drug precursors. : Neither banned nor restricted

UK REACH List of substances subject to authorisation (Annex XIV) : Not applicable

GB Export and import of hazardous chemicals – Prior Informed Consent (PIC) Regulation : Not applicable

Control of Major Accident Hazards Regulations 2015 (COMAH) Not applicable

**15.2 Chemical safety assessment**

A Chemical Safety Assessment is not required for this substance.

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· **Trade name**: **Pigment Additive**

## SECTION 16: Other information

**Full text of other abbreviations**

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits

GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI -

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· **Trade name**: **Pigment Additive**

**Further information**

The data contained in this Safety Data Sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered to be a guidance for processing and does not contain any warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is the responsibility of the recipient of the product to ensure that any proprietary rights and existing laws and legislation are observed.

. Relevant changes from the previous version are marked on the left side of the Safety Data Sheet with a black double bar in appropriate places.