

# Bayferrox<sup>®</sup> Dark Brown (686G) Granules

## SDS Cover Note



This cover note must be read in conjunction with the accompanying SDS.  
The accompanying SDS consists of 12 pages.

### Product

|                         |  |
|-------------------------|--|
| <b>Product name(s):</b> | Bayferrox <sup>®</sup> Dark Brown (686G) granules, Bayferrox <sup>®</sup> Dark Brown (686G TM-R) |
| <b>Cover note date:</b> | 4 March 2019   |
| <b>SDS date:</b>        | 25 February 2019   |
| <b>HSNO Status:</b>     | Not Hazardous  |
| <b>DG Status:</b>       | Not Dangerous Goods  |

### Company Details

|                                 |  |
|---------------------------------|--|
| <b>Supplier:</b>                | Peter Fell Ltd   |
| <b>Address:</b>                 | 81 Patiki Rd<br>Avondale<br>Auckland<br>New Zealand            |
| <b>Telephone number:</b>        | +64 9 828 6460   |
| <b>email:</b>                   | <a href="mailto:info@peterfell.co.nz">info@peterfell.co.nz</a> |
| <b>National poisons centre:</b> | 0800 764 66  |

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## BAYFERROX 686 G

|         |                |              |                                 |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number:  | Date of last issue: 26.11.2017  |
| 1.0     | 25.02.2019     | 103000010188 | Country / Language: GB / EN(GB) |

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

#### 1.1 Product identifier

Trade name : BAYFERROX 686 G  
Product code : 04212452

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

Use of the Sub-stance/Mixture : Colorants (pigments and dyestuffs), inorganic  
see user defined free text

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

Supplier : LANXESS Deutschland GmbH  
Production, Technology,  
Safety & Environment  
51369 Leverkusen, Germany  
Telephone : +4922188852288

#### 1.4 Emergency telephone number

+492143099300

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

|| Not a hazardous substance or mixture.

#### 2.2 Label elements

##### Labelling (REGULATION (EC) No 1272/2008)

|| Not a hazardous substance or mixture.

#### 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.

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### SECTION 3: Composition/information on ingredients

#### 3.2 Mixtures

Chemical nature : Fe<sub>2</sub>O<sub>3</sub>, and, Fe<sub>3</sub>O<sub>4</sub>

##### Components

Remarks : No hazardous ingredients

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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Do not leave the victim unattended.
- If inhaled : Move the victim to fresh air.  
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.  
If unconscious, place in recovery position and get medical attention immediately.  
Loosen tight clothing such as a collar, tie, belt or waistband.
- In case of skin contact : No special measures required.
- In case of eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.  
If easy to do, remove contact lens, if worn.  
Continue to rinse for at least 10 minutes.  
Get medical attention if symptoms appear.
- If swallowed : No special measures required.

#### 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.

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

- Treatment : See Section 11 for more detailed information on health effects and symptoms.
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### 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 the substance or mixture

- Specific hazards during fire- : No information available.
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fighting

Hazardous combustion products : Metal oxides

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.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## 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.  
Avoid breathing dust.  
Use personal protective equipment.  
Avoid dust formation.

### 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.

### 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.

### 6.4 Reference to other sections

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

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**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

- Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
- 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.

**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. 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 : No decomposition if stored and applied as directed.

**7.3 Specific end use(s)**

- Specific use(s) : No data available

**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/m <sup>3</sup> | GB EH40 |
| Further information | For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any |                               |                      |         |

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|                     |  |                       |                             |         |
|---------------------|--|-----------------------|-----------------------------|---------|
|                     | <p>kind when present at a concentration in air equal to or greater than 10 mg.m<sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p>   |                       |                             |         |
|                     |  | TWA (Respirable dust) | 4 mg/m <sup>3</sup>         | GB EH40 |
| Further information | <p>For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust, The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m<sup>-3</sup> 8-hour TWA of inhalable dust or 4 mg.m<sup>-3</sup> 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit., Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3., Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with., Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used</p> |                       |                             |         |
| triiron tetraoxide  | 1317-61-9  | TWA (Fumes)           | 5 mg/m <sup>3</sup> (Iron)  | GB EH40 |
| Further information | <p>The word 'fume' is often used to include gases and vapours. This is not the case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilisation from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.</p>  |                       |                             |         |
|                     |  | STEL (Fumes)          | 10 mg/m <sup>3</sup> (Iron) | GB EH40 |
| Further information | <p>The word 'fume' is often used to include gases and vapours. This is not the</p>   |                       |                             |         |

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case for exposure limits where 'fume' should normally be applied to solid particles generated by chemical reactions or condensed from the gaseous state, usually after volatilisation from melted substances. The generation of fume is often accompanied by a chemical reaction such as oxidation or thermal breakdown.

### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

| Substance name     | End Use | Exposure routes | Potential health effects             | Value                |
|--------------------|---------|-----------------|--------------------------------------|----------------------|
| diiron trioxide    | Workers | Inhalation      | Long-term exposure, Systemic effects | 10 mg/m <sup>3</sup> |
| Remarks:           | Dust    |                 |                                      |                      |
|                    | Workers | Inhalation      | Long-term exposure, Local effects    | 10 mg/m <sup>3</sup> |
| Remarks:           | Dust    |                 |                                      |                      |
| triiron tetraoxide | Workers | Inhalation      | Systemic effects, Long-term exposure | 10 mg/m <sup>3</sup> |
|                    | Workers | Inhalation      | Local effects, Long-term exposure    | 10 mg/m <sup>3</sup> |

## 8.2 Exposure controls

### Engineering measures

This information is not available.

### Personal protective equipment

Eye protection : Safety glasses with side-shields  
Safety glasses

Hand protection  
Wearing time : < 60 min

Material : Leather gloves

Skin and body protection : 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.

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### SECTION 9: Physical and chemical properties

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

|  |   |                               |
|--|---|-------------------------------|
| Appearance                             | : | solid                         |
| Colour                                 | : | brown                         |
| Odour                                  | : | odourless                     |
| Odour Threshold                        | : | No data available             |
| pH                                     | : | 3 - 7<br>Concentration: 5 %   |
| Melting point/range                    | : | > 1,000 °C                    |
| Boiling point/boiling range            | : | No data available             |
| Flash point                            | : | No data available             |
| Evaporation rate                       | : | No data available             |
| Flammability (solid, gas)              | : | No data available             |
| Upper explosion limit                  | : | No data available             |
| Lower explosion limit                  | : | No data available             |
| Vapour pressure                        | : | No data available             |
| Relative vapour density                | : | No data available             |
| Relative density                       | : | No data available             |
| Density                                | : | 4.5 g/cm <sup>3</sup> (20 °C) |
| Bulk density                           | : | 300 - 1,000 kg/m <sup>3</sup> |
| Solubility(ies)                        | : |                               |
| Water solubility                       | : | insoluble<br><br>insoluble    |
| Partition coefficient: n-octanol/water | : | No data available             |
| Ignition temperature                   | : | No data available             |
| Decomposition temperature              | : | No data available             |
| Viscosity                              | : | No data available             |



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Explosive properties : No data available

Oxidizing properties : No data available

### 9.2 Other information

No data available

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## 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 : Under normal conditions of storage and use, hazardous reactions will not occur.

### 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.

### 10.6 Hazardous decomposition products

Hazardous decomposition products : No decomposition if stored and applied as directed.

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## 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  
Remarks: Test results on an analogous product

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### **Skin corrosion/irritation**

Not classified based on available information.

### **Serious eye damage/eye irritation**

Not classified based on available information.

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Carcinogenicity**

Not classified based on available information.

#### **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**

#### **Product:**

Remarks: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

#### **Aspiration toxicity**

Not classified based on available information.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

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### 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..

### 12.6 Other adverse effects

**Product:**

Additional ecological information : Ecotoxicological data are not available.  
No known significant effects or critical hazards.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : 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.  
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).  
Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

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## SECTION 14: Transport information

### 14.1 UN number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

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### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Hazard statements : 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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## SECTION 15: Regulatory information

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

- |   |                                 |
|---|---------------------------------|
| International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors   | : Not applicable                |
| REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).   | : Not applicable                |
| REACH - List of substances subject to authorisation (Annex XIV)   | : Not applicable                |
| Regulation (EC) No 1005/2009 on substances that deplete the ozone layer   | : Not applicable                |
| Regulation (EC) No 850/2004 on persistent organic pollutants  | : 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 |
| Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals                          | : Not applicable                |
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)          | : Not applicable                |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | Not applicable                  |

### 15.2 Chemical safety assessment

not applicable

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### 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)

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

#### Further information

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.