

# Bayferrox<sup>®</sup> Red (110C) granules



This attachment must be read in conjunction with the accompanying Safety Data Sheet.

## Product

Product name(s): Bayferrox<sup>®</sup> Red (110C) granules, Bayferrox<sup>®</sup> Red (110C), Bayferrox<sup>®</sup> 110 C

Cover note date: Oct 2022

SDS date: 27.10.2021

HSNO Status: Not Hazardous

DG Status: Not Dangerous Goods

## Supplier

Company: Peter Fell Ltd

Address: 81 Patiki Rd, Avondale, Auckland 1026,  
New Zealand

Telephone: +64 9 828 6460

Email: info@peterfell.co.nz

Emergency Telephone Number: 0800 764 766  
(National Poison Centre)

# SAFETY DATA SHEET

## BAYFERROX 110 C



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### Section 1: Identification

Product name : BAYFERROX 110 C  
Product code : 000000000004987942

#### Manufacturer or supplier's details

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

Responsible Department : +49 221 8885 2288  
infosds@lanxess.com

Emergency telephone number : YLXS-YADD00000000196  
For 24/7 multilingual emergency please call toll free  
CHEMTREC New Zealand: 0800 425 459 and mention CCN  
1001750.

#### Recommended use of the chemical and restrictions on use

Recommended use : Colorants (pigments and dyestuffs), inorganic

### Section 2: Hazard identification

#### GHS Classification

Not a hazardous substance or mixture.

#### GHS label elements

Not a hazardous substance or mixture.

#### Other hazards which do not result in classification

None known.

### Section 3: Composition/information on ingredients

Substance / Mixture : Mixture

Chemical nature : contains  
Fe<sub>2</sub>O<sub>3</sub>

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
diiron trioxide	1309-37-1	>= 90 -<= 100

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### Section 4: 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.

### 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.
- Notes to physician : Treat symptomatically.

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### Section 5: Fire-fighting measures

- Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO<sub>2</sub>.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire-fighting : No information available.
- Hazardous combustion products : The product itself does not burn.

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- Specific extinguishing methods : 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.
- 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.
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### Section 6: Accidental release measures

- 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. Use personal protective equipment. Avoid dust formation.
- 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.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
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### Section 7: Handling and storage

- Advice on protection against fire and explosion : Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
- 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.
- Conditions for safe storage : Store in accordance with local regulations.
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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.

Materials to avoid : No materials to be especially mentioned.

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

### Section 8: Exposure controls/personal protection

#### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
diiron trioxide	1309-37-1	WES-TWA (Dust and fume)	5 mg/m <sup>3</sup> (Iron)	NZ OEL
		TWA (Respirable particulate matter)	5 mg/m <sup>3</sup>	ACGIH

**Engineering measures** : This information is not available.

#### Personal protective equipment

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

Filter type : P1 filter

Hand protection  
 Wearing time : < 60 min

Material : Leather gloves

Eye protection : Safety glasses

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.

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### Section 9: Physical and chemical properties

Appearance : powder

Physical state : solid

Colour : red

Odour : odourless

Odour Threshold : Not applicable

pH : 3 - 7  
Concentration: 5 %

Melting point/range : > 1,000 °C

Boiling point/boiling range : No data available

Flash point : Not applicable  
No data available

Evaporation rate : No data available

Self-ignition : No data available

Burning number : Not applicable

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : Not applicable

Relative density : No data available

Density : 5 g/cm<sup>3</sup> (20 °C)

Bulk density : 900 - 1,300 kg/m<sup>3</sup>

Solubility(ies)  
Water solubility : insoluble

Solubility in other solvents : No data available

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Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity

    Viscosity, dynamic : No data available

    Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

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### Section 10: Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is chemically stable.

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

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

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

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### Section 11: Toxicological information

Exposure routes : 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

#### Components:

##### diiron trioxide:

Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg  
Method: OECD Test Guideline 401

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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

### **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

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

Not classified based on available information.

#### **Components:**

##### **diiron trioxide:**

Species : Rabbit  
Result : No eye irritation  
Exposure time : 24 h  
Method : OECD Test Guideline 405  
GLP : yes

### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

Not classified based on available information.

#### **Respiratory sensitisation**

Not classified based on available information.

#### **Components:**

##### **diiron trioxide:**

Test Type : Maurer optimisation test  
Exposure routes : Dermal  
Species : Guinea pig  
Result : Did not cause sensitisation on laboratory animals.



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GLP : No information available.

### Chronic toxicity

#### 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  
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  
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

### Carcinogenicity

Not classified based on available information.

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### Components:

#### **diiron trioxide:**

Species : Rat, male and female  
Application Route : Intraperitoneal  
Exposure time : 914 days  
Dose : 600 mg/kg body weight  
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/m<sup>3</sup>  
Application Route : Inhalation  
Test atmosphere : dust/mist  
Exposure time : 90 d  
Number of exposures : 5 days/week  
Dose : 4,7 - 16,6 - 52,1 mg/m<sup>3</sup>  
Method : OECD Test Guideline 413  
GLP : yes  
Remarks : Subchronic toxicity  
Test results on an analogous product

Species : Rat, male  
NOAEL : 10,1 mg/m<sup>3</sup>  
Application Route : Inhalation  
Test atmosphere : dust/mist  
Exposure time : 28 d  
Number of exposures : 5 days/week  
Dose : 10,1 - 19,7- 45,6 - 95,8 mg/m<sup>3</sup>  
Method : OECD Test Guideline 412  
GLP : yes  
Remarks : Subacute toxicity  
Test results on an analogous product

#### **Aspiration toxicity**

Not classified based on available information.

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### Further information

#### Product:

Remarks : According to our experience and information the product has no harmful effects on health if properly handled.

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### Section 12: Ecological information

#### Ecotoxicity

##### Product:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1,000 mg/l  
Exposure time: 48 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 water

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

#### Persistence and degradability

##### Components:

##### **diiron trioxide:**

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

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### Bioaccumulative potential

#### Components:

##### diiron trioxide:

Partition coefficient: n-octanol/water : Remarks: Not applicable

#### Mobility in soil

No data available

#### 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

#### Disposal methods

Waste from residues : 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.

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

#### International Regulations

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

##### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### NZS 5433

Not regulated as a dangerous good

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### Hazard and Handling Notes.

Not dangerous cargo., Keep dry., Keep away from cargo susceptible to odour., Keep away from foodstuffs, acids and alkalis.

## Section 15: Regulatory information

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

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

### HSNO Approval Number

Not applicable

### HSW Controls

Certified handler certificate not required.  
Tracking hazardous substance not required.  
Refer to the Health and Safety at Work (Hazardous Substances) Regulations 2017, for further information.

## Section 16: Other information

Date format : dd.mm.yyyy

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
NZ OEL : New Zealand. Workplace Exposure Standards for Atmospheric Contaminants

ACGIH / TWA : 8-hour, time-weighted average  
NZ OEL / WES-TWA : Workplace Exposure Standard - Time Weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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 Or-

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ganisation 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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.