



**MSDS**



## Material Safety Data Sheet

PRODUCT NAME **BAYFERROX OXIDES**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Supplier Name** BLUE CIRCLE SOUTHERN CEMENT LIMITED  
**Address** Clunies Ross Street, Prospect, NSW, AUSTRALIA, 2148  
**Telephone** (02) 9033 4000  
**Fax** (02) 9033 4055  
**Emergency** 1800 033 111  
**Email**  
**Web Site** <http://www.bluecirclesouthern cement.com.au>

**Synonym(s)** BAYFERROX BLACK 318, BAYFERROX BROWN 610, MARIGOLD 960, BLUE CIRCLE SOUTHERN CEMENT COLOUR OXIDES (FORMERLY), BAYFERROX BROWN 660, BAYFERROX BROWN 686, BAYFERROX RED 110, BAYFERROX RED 130, BAYFERROX RED 140, BAYFERROX RED 222, BAYFERROX YELLOW 420, BAYFERROX 920, BAYFERROX RED 160, BAYFERROX RED 180, BAYFERROX YELLOW 920, BAYFERROX YELLOW 960, BAYFERROX BROWN 663, BAYFERROX BLACK 330

**Use(s)** COLOURANT, CONCRETE ADDITIVE, PIGMENT

### 2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE

<b>UN No.</b>	None Allocated	<b>Hazchem Code</b>	None Allocated	<b>Pkg Group</b>	None Allocated
<b>DG Class</b>	None Allocated	<b>Subsidiary Risk(s)</b>	None Allocated	<b>EPG</b>	None Allocated

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	Formula	Conc.	CAS No.
C.I. PIGMENT BLACK	Not Available	<100%	3171-69-9
IRON (III) OXIDE	Fe <sub>2</sub> O <sub>3</sub>	<100%	1309-37-1
IRON (III) OXIDE HYDRATE	FeOOH	<100%	20344-49-4
IRON OXIDE (MAGNETITE)	Fe <sub>3</sub> O <sub>4</sub>	<100%	1317-61-9

### 4. FIRST AID MEASURES

**Eye** Flush gently with running water. Seek medical attention if irritation develops.

**Inhalation** If over exposure occurs, leave exposure area immediately. Seek medical attention if symptoms develop.

**Skin** Gently flush affected areas with water.

**Ingestion** For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor. If swallowed, do not induce vomiting.

**Advice to Doctor** Treat symptomatically

**First Aid Facilities** Eye wash facilities should be available.

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## 5. FIRE FIGHTING MEASURES

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<b>Flammability</b>	Non flammable. May evolve toxic gases/ fumes (iron oxides) when heated to decomposition.
<b>Fire and Explosion</b>	Non flammable. Evacuate area and contact emergency services. Toxic gases (iron oxides) may be evolved when heated to decomposition. Remain upwind and notify those downwind of hazard. Wear full protective equipment (see spill above) including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.
<b>Extinguishing</b>	Non flammable.
<b>Hazchem Code</b>	None

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Spillage</b>	If spilt, collect and reuse where possible. Wear dust-proof goggles and PVC/rubber gloves. Where heavy contamination is possible or where an inhalation risk exists, wear a Class P1 (Particulate) respirator and coveralls. Absorb with moist sand or similar and place in sealable containers for disposal.
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## 7. STORAGE AND HANDLING

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<b>Storage</b>	Store in cool, dry, well ventilated area removed from oxidising agents, acids, carbon monoxide and foodstuffs. Ensure containers are adequately labelled and protected from physical damage.
<b>Handling</b>	Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas (eg. if container is damaged).

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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<b>Ventilation</b>	Ensure adequate natural ventilation. Maintain dust levels below the recommended exposure standard.
<b>Exposure Standards</b>	IRON (III) OXIDE (1309-37-1) WES-TWA: 5 mg/m <sup>3</sup> IRON (III) OXIDE HYDRATE (20344-49-4) ES-STEL : 10 mg(Fe)/m <sup>3</sup> ES-TWA: 5 mg/m <sup>3</sup> Iron oxide fume IRON OXIDE (MAGNETITE) (1317-61-9) ES-STEL : 10 mg/m <sup>3</sup> (Iron) ES-TWA: 5 mg/m <sup>3</sup> (Iron fumes/dust)
<b>PPE</b>	Wear dust-proof goggles and rubber or PVC gloves. Where an inhalation risk exists, wear a Class P1 (Particulate) Respirator. When using large quantities or where heavy contamination is likely, wear coveralls.



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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance:</b>	COLOURED POWDER	<b>Solubility (water):</b>	INSOLUBLE
<b>Odour:</b>	ODOURLESS	<b>Specific Gravity:</b>	4.0 - 5.0
<b>pH:</b>	5 - 8 (50g/L solution)	<b>% Volatiles:</b>	NOT AVAILABLE
<b>Vapour Pressure:</b>	NOT AVAILABLE	<b>Flammability:</b>	NON FLAMMABLE
<b>Vapour Density:</b>	NOT AVAILABLE	<b>Flash Point:</b>	NOT RELEVANT
<b>Boiling Point:</b>	NOT AVAILABLE	<b>Upper Explosion Limit:</b>	NOT RELEVANT
<b>Melting Point:</b>	> 1000 C	<b>Lower Explosion Limit:</b>	NOT RELEVANT
<b>Evaporation Rate:</b>	NOT AVAILABLE	<b>Autoignition Temperature:</b>	NOT AVAILABLE
<b>Exposure Standard:</b>	5 mg/m3 Iron oxide		

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## 10. STABILITY AND REACTIVITY

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**Reactivity** Incompatible with oxidising agents (eg. hypochlorites, peroxides), acids (eg. hydrochloric acid) and carbon monoxide.

**Decomposition Products** May evolve toxic gases/ fumes (iron oxides) when heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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**Health Hazard Summary** Low toxicity - low irritant. Use with safe work practices to avoid eye or skin contact and dust generation - inhalation.

**Eye** Low irritant. Exposure to dust/ powder may result in mechanical irritation.

**Inhalation** Low irritant. Over exposure at high levels may result in mucous membrane irritation of the nose and throat. However, under normal conditions of use no adverse health effects are anticipated.

**Skin** Low irritant. Prolonged and repeated exposure to dust/ powder may result in irritation due to mechanical action.

**Ingestion** Low toxicity. With large doses ingestion may result in nausea, vomiting and gastrointestinal irritation.

**Toxicity Data** No LD50 data available for this product.

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## 12. ECOLOGICAL INFORMATION

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**Environment** The main component/s of this product occur naturally in the earth's crust. It is not anticipated to cause any adverse effects to plants or animals.

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## 13. DISPOSAL CONSIDERATIONS

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**Waste Disposal** For small amounts, cover with moist sand or similar, collect and dispose of to an approved landfill site. Avoid generating dust. Contact the manufacturer for additional information.

**Legislation** Dispose of in accordance with relevant local legislation.

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## 14. TRANSPORT INFORMATION

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**Shipping Name** None Allocated

**UN No.** None Allocated      **Hazchem Code** None Allocated      **Pkg Group** None Allocated

**DG Class** None Allocated      **Subsidiary Risk(s)** None Allocated      **EPG** None Allocated

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## 15. REGULATORY INFORMATION

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<b>Poison Schedule</b>	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP).
<b>AICS</b>	All chemicals listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

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**Additional Information** RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGE (TWA) or WES (WORKPLACE EXPOSURE STANDARD) (NZ): Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

### ABBREVIATIONS:

mg/m<sup>3</sup> - Milligrams per cubic metre

ppm - Parts Per Million

TWA/ES - Time Weighted Average or Exposure Standard.

CNS - Central Nervous System

NOS - Not Otherwise Specified

pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline.

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds.

M - moles per litre, a unit of concentration.

IARC - International Agency for Research on Cancer.

### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

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**Report Status** This document has been compiled by RMT on behalf of the manufacturer of the product and serves as the manufacturer's Material Safety Data Sheet ('MSDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS.

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**Last Reviewed:** 01 May 2006

**Date Printed:** 25 May 2006

**End of Report**