SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : BAYFERROX 960

Product code : 00005746

Manufacturer or supplier's details

Supplier : LANXESS Pty Ltd
2d Factory Street Granville, NSW 2142, Australia

Telephone : +61288687211

Emergency telephone number : IXOM Emergency Response Service (ERS)
Phone 1800 033 111• 24 hours • Toll-free • Australia wide

Recommended use of the chemical and restrictions on use

Recommended use : Colorants (pigments and dyestuffs), inorganic

SECTION 2. HAZARDS 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

Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mixture of:
Fe2O3, FeO(OH)

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
diiron trioxide	1309-37-1	>= 10 -< 30

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	:	See Section 11 for more detailed information on health effects and symptoms. See Section 11 for more detailed information on health effects and symptoms.
Notes to physician	:	See Section 11 for more detailed information on health effects and symptoms.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	In case of fire, use water spray (fog), foam, dry chemical or CO_2.
Unsuitable extinguishing media	:	None known.
Specific hazards during fire-fighting	:	No information available.
Hazardous combustion products	:	The product itself does not burn.
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.

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.

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 : When using do not eat, drink or smoke.
Wash face, hands and any exposed skin thoroughly after handling.
Wash contaminated clothing before reusing.

Hygiene measures : General industrial hygiene practice.

Conditions for safe storage : 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.

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability : No decomposition if stored and applied as directed.

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	TWA (Fumes)	5 mg/m3 (Iron)	AU OEL
		TWA (Res-	5 mg/m3	ACGIH

		pirable fraction)		

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	powder
Colour	:	orange
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	4 - 8 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 / Upper flammability 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/cm³ (20 °C)
Bulk density	:	300 - 1,000 kg/m³
Solubility(ies)		
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Molecular weight	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Under normal conditions of storage and use, hazardous reactions will not occur. Dust may form explosive mixture in air.
Conditions to avoid	:	From approx. 180 °C conversion into Fe2O3.
Incompatible materials	:	No specific data.
Hazardous decomposition products	:	No decomposition if stored and applied as directed.

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): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): > 210 mg/m³ Exposure time: 14 d Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Product:

Result: No skin irritation
Remarks: Test results on an analogous product

Components:

diiron trioxide:

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Result: No eye irritation
Remarks: Test results on an analogous product

Components:

diiron trioxide:

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

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

diiron trioxide:

Exposure routes: Dermal
Species: Guinea pig
Result: Did not cause sensitisation on laboratory animals.

Chronic toxicity

Germ cell mutagenicity

Not classified based on available information.

Components:

diiron trioxide:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Bacteria
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
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

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

Carcinogenicity

Not classified based on available information.

Components:

diiron trioxide:

Species: Rat, (male and female)
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
NOAEL: 10,1 mg/m³
Application Route: Inhalation
Test atmosphere: dust/mist
Exposure time: 28 d
Method: OECD Test Guideline 412
GLP: yes
Remarks: Subacute toxicity

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: Health injuries are not known or expected under normal use.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 1,000 mg/l Exposure time: 96 h Remarks: Test results on an analogous product

Components:

diiron trioxide:

Toxicity to fish	:	LC0 (Danio rerio (zebra fish)): > 50,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to microorganisms	:	EC50 (activated sludge): > 10,000 mg/l Exposure time: 3 h Method: ISO 8192

Persistence and degradability

Components:

diiron trioxide:

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

Bioaccumulative potential

No data available

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.

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.

SECTION 14. TRANSPORT INFORMATION

National Regulations

ADG
Not regulated as a dangerous good

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.

Hazard statements : Not dangerous cargo.
Keep separated from foodstuffs.

SECTION 15. REGULATORY INFORMATION

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

Standard for the Uniform Scheduling of Medicines and Poisons	:	Schedule 6
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	:	Not applicable
Prohibition/Licensing Requirements	:	There is no applicable prohibition or notification/licensing requirements, including for carcinogens under Commonwealth, State or Territory legislation.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals

Revision Date	:	03.09.2018
ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
AU OEL	:	Australia. Workplace Exposure Standards for Airborne Contaminants.
ACGIH / TWA	:	8-hour, time-weighted average
AU OEL / TWA	:	Exposure standard - time weighted average

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. 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 a 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.