

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

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

1.1 Product identifier

Trade name : BAYFERROX 318 M

Product code : 00006815

REACH Registration Number : 01-2119457646-28-0000

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

1.3 Details of the supplier of the safety data sheet

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

Telephone : +4922188852288

E-mail address of person responsible for the SDS : infosds@lanxess.com

1.4 Emergency telephone number

0870 190 6777. National Chemical Emergency Centre

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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical nature : Fe₃O₄

Hazardous components

Remarks : No hazardous ingredients

SECTION 4: First aid measures

4.1 Description of first aid measures

- General advice : Do not leave the victim unattended.
- Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.
- 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.
-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : No information available.

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.
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.

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version 1.1 Revision Date: 16.10.2018 SDS Number: 103000009111 Date of last issue: 27.11.2017
Country / Language: GB / EN(GB)

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.

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

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
------------	---------	-------------------------------	--------------------	-------

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version 1.1 Revision Date: 16.10.2018 SDS Number: 103000009111 Date of last issue: 27.11.2017
Country / Language: GB / EN(GB)

triiron tetraoxide	1317-61-9	TWA (Fumes)	5 mg/m3 (Iron)	GB EH40
Further information	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.			
		STEL (Fumes)	10 mg/m3 (Iron)	GB EH40
Further information	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.			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
triiron tetraoxide	Workers	Inhalation	Systemic effects, Long-term exposure	10 mg/m3
	Workers	Inhalation	Local effects, Long-term exposure	10 mg/m3

8.2 Exposure controls

Engineering measures

This information is not available.
This information is not available.

Personal protective equipment

Eye protection : 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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

BAYFERROX 318 M

Version 1.1 Revision Date: 16.10.2018 SDS Number: 103000009111 Date of last issue: 27.11.2017
Country / Language: GB / EN(GB)

courses or the soil.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	powder
Colour	:	black
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	5 - 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	:	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	:	4,6 g/cm ³ (20 °C)
Bulk density	:	300 - 1.000 kg/m ³
Solubility(ies)	:	
Water solubility	:	insoluble
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Decomposition temperature	:	> 80 °C
Viscosity	:	No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

Explosive properties : No data available

Oxidizing properties : No data available

9.2 Other information

No data available

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

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, male and female): > 5.000 mg/kg
Remarks: Information refers to the main component.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

Result: negative
Remarks: Information refers to the main component.

Carcinogenicity

Not classified based on available information.

Product:

Species: Rat, (male and female)
Exposure time: 914 days
Dose: 600 mg/kg body weight
Result: negative
Remarks: Information refers to the main component.

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:

Species: Rat, male
LOAEL: 185,6 mg/m³
Application Route: inhalation (dust/mist/fume)
Exposure time: 2 Weeks
Number of exposures: 6 hours/day
Remarks: Information refers to the main component.

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : LC0 (Danio rerio (zebra fish)): > 10.000 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: Fresh water
Information refers to the main component.

Toxicity to daphnia and other : EC0 (Daphnia magna (Water flea)): > 10.000 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2
Remarks: Fresh water
Information refers to the main component.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

Toxicity to microorganisms : EC50 (adapted and activated sludge micro-organism):
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Fresh water
Information refers to the main component.

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

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..

12.6 Other adverse effects

Product:

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 : 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 han-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

BAYFERROX 318 M

Version 1.1 Revision Date: 16.10.2018 SDS Number: 103000009111 Date of last issue: 27.11.2017
Country / Language: GB / EN(GB)

ding site for recycling or disposal.

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

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 / Additional advice

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.

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : 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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



BAYFERROX 318 M

Version	Revision Date:	SDS Number:	Date of last issue: 27.11.2017
1.1	16.10.2018	103000009111	Country / Language: GB / EN(GB)

Not applicable

15.2 Chemical safety assessment

not applicable

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.