

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : BAYFERROX 318 M
Product code : 000000000000519727

Manufacturer or supplier's details

Company : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, Pennsylvania 15275-1112

Responsible Department : (800) LANXESS
(412) 809-1000
lanxesshes@lanxess.com

Emergency telephone : CHEMTREC (800) 424-9300 or
(703) 527-3887 (Outside U.S.A) and mention CCN12916.
Lanxess Emergency Phone (800) 410-3063.

Recommended use of the chemical and restrictions on use

Recommended use : Colorants (pigments and dyestuffs), inorganic

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

|| Not a hazardous substance or mixture.

GHS label elements

|| Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance
Chemical nature : Fe₃O₄

Components

|| No hazardous ingredients

SECTION 4. FIRST AID MEASURES

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

- If inhaled : Move to fresh air.
Get medical attention if symptoms occur.
- In case of skin contact : Wash off with plenty of water.
Continue to rinse for at least 10 minutes.
Wash contaminated clothing before re-use.
- 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 : Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

- Symptoms : May cause irritation with symptoms of reddening and itching.
Eye: May cause irritation with symptoms of reddening, tearing and stinging.
- Effects : May cause mechanical irritation (abrasion).
- Protection of first-aiders : No action shall be taken involving any personal risk or without
suitable training.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : In case of fire, use water spray (fog), foam, dry chemical or
CO₂.
- Unsuitable extinguishing media : None known.
- Specific hazards during fire fighting : No information available.
- Hazardous combustion products : The product itself does not burn.
- 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.
- Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment
and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

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 spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods and materials for containment and cleaning up : Move containers from spill area.
Vacuum or sweep up material and place in a designated, labeled waste container.
Dispose of wastes in an approved waste disposal facility.

SECTION 7. HANDLING AND STORAGE

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

Workers should wash hands and face before eating, drinking and smoking.
- 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.

Do not store near sources of heat (furnaces, kilns, boilers, etc.).
Exposure to excessive heat may cause this product to become unstable (slowly auto-oxidize) which generates additional heat. Under certain circumstances this heat generation may be sufficient to cause combustible materials to ignite. Do not store near strong oxidizers, sources of heat, or near flammable or combustible materials.
- Further information on storage stability : Keep in a dry place.

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

|| Contains no substances with occupational exposure limit values.

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

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

Hand protection
Material : Gloves

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear suitable protective clothing.

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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Physical state : solid

Color : black

Odor : odorless

Odor Threshold : Not applicable

pH : 5 - 8
Concentration: 5 %

Melting point/range : > 1,832 °F / > 1,000 °C

Boiling point/boiling range : No data available

Flash point : No data available

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

Evaporation rate : No data available

Self-ignition : No data available

Burning number : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : Not applicable

Relative density : No data available

Density : 4.6 g/cm³ (68 °F / 20 °C)

Bulk density : 300 - 1,000 kg/m³

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

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

Decomposition temperature : > 176 °F / > 80 °C

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : 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 : The product is chemically stable.

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

Conditions to avoid : Excessive temperatures. At temperatures greater than 176 F (80 C), this product may become unstable and slowly auto-

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

oxidize into Fe₂O₃ which generates additional heat. Under certain conditions this heat may be sufficient to cause combustible materials to ignite.

Incompatible materials : No specific data.

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

SECTION 11. TOXICOLOGICAL INFORMATION

The most important known symptoms and effects are described in Section 2 and/or Section 4.

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 ingredient.

Skin corrosion/irritation

Not classified based on available information.

Product:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation
Remarks : Information refers to the main ingredient.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405
Remarks : Information refers to the main ingredient.

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

SAFETY DATA SHEET



BAYFERROX 318 M

Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

Product:

Species : Guinea pig
Result : Not a skin sensitizer.
Remarks : Information refers to the main ingredient.

Germ cell mutagenicity

Not classified based on available information.

Product:

Genotoxicity in vitro : Test Type: Ames test
Test system: Bacteria
Metabolic activation: with and without metabolic activation
Result: negative
Remarks: Information refers to the main ingredient.

Test Type: In vitro mammalian cell gene mutation test
Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
Remarks: Information refers to the main ingredient.

Test Type: Chromosome aberration test in vitro
Test system: Mammalian-Animal
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Remarks: Information refers to the main ingredient.

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 ingredient.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

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 ingredient.

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

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 ingredient.

Toxicity to daphnia and other aquatic invertebrates : EC0 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2
Remarks: Fresh water
Information refers to the main ingredient.

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 ingredient.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

SAFETY DATA SHEET

BAYFERROX 318 M



Version 2.0 Revision Date: 06/18/2021 SDS Number: 203000012089 Date of last issue: 10/02/2020
Country / Language: US / EN

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

RCRA - Resource Conservation and Recovery Authorization Act : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Waste from residues : The generation of waste should be avoided or minimized wherever possible.
This material and its container must be disposed of in a safe way.
Empty containers retain product residue; observe all precautions for product.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

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.

Domestic regulation

49 CFR

Not regulated as a dangerous good

Hazard and Handling Notes.

Not dangerous cargo, Keep separated from foodstuffs

SAFETY DATA SHEET

BAYFERROX 318 M



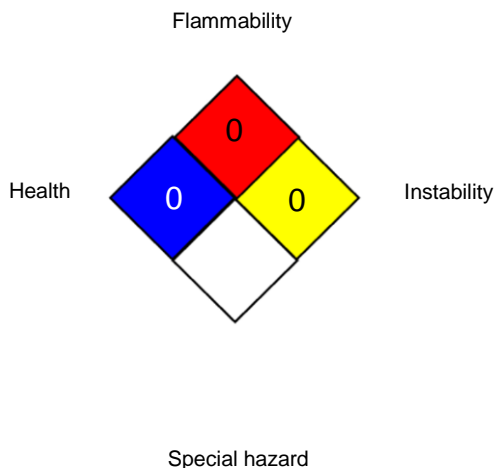
Version
2.0

Revision Date:
06/18/2021

SDS Number:
203000012089

Date of last issue: 10/02/2020
Country / Language: US / EN

NFPA 704:



HMIS® IV:

| | | |
|-----------------|---|---|
| HEALTH | / | 0 |
| FLAMMABILITY | | 0 |
| PHYSICAL HAZARD | | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); EC_x - Concentration associated with x% response; EHS - Extremely Hazardous Substance; EL_x - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErC_x - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; 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 Organisation 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory;

SAFETY DATA SHEET

BAYFERROX 318 M



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|---------|----------------|--------------|--------------------------------|
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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

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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.