SAFETY DATA SHEET

BAYFERROX 663

Version	Revision Date:	SDS Number:	Date of last issue: 10/28/2020
2.0	10/19/2022	203000012066	Country / Language: US / EN

SECTION 1. IDENTIFICATION

Product name : BAYFERROX 663

Product code : 000000000000005576

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

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 : Mixture

Chemical nature : contains
Fe_2O_3
and
Fe_3O_4

Components

No hazardous ingredients

SECTION 4. FIRST AID MEASURES

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.
Take off contaminated clothing and shoes immediately.
Wash contaminated clothing before re-use.
If symptoms persist, call a physician.

In case of eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Continue to rinse for at least 10 minutes.
Keep eye wide open while rinsing.
Remove contact lenses.
Protect unharmed eye.
If eye irritation persists, consult a specialist.
Get medical attention if symptoms appear.

If swallowed : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.
Never give anything by mouth to an unconscious person.
If unconscious, place in recovery position and get medical attention immediately.
Maintain open airway.
Loosen tight clothing such as a collar, tie, belt or waistband.
If symptoms persist, call a physician.

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.
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 CO_2.
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
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. No action shall be taken involving any personal risk or without suitable training. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. 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.

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. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Avoid dust formation. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment.
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. Avoid contact with skin and eyes. Provide sufficient air exchange and/or exhaust in work rooms. In case of insufficient ventilation, wear suitable respiratory equipment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Dispose of rinse water in accordance with local and national regulations. 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. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. 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. No decomposition if stored and applied as directed.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Iron (III) Oxide	1309-37-1	TWA (Respirable particulate matter)	5 mg/m3	ACGIH
		TWA	10 mg/m3	OSHA Z-1

		(Fumes)		
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1

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

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations

Eye protection : Safety glasses

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.
Remove contaminated clothing and protective equipment before entering eating areas.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Physical state : solid

Color : brown

Odor : odorless

Odor Threshold : No data available

pH	:	5 - 8 Concentration: 5 %
Melting point/range	:	> 1,832 °F / > 1,000 °C
Boiling point/boiling range	:	No data available
Flash point	:	Not applicable Not applicable
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	:	4.8 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-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.
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): > 5,000 mg/kg Remarks: Test results on an analogous product

Skin corrosion/irritation

Not classified based on available information.

Product:

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

Serious eye damage/eye irritation

Not classified based on available information.

Product:

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

Respiratory or skin sensitization

Skin sensitization

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

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.

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:

Remarks : Long-term exposure to high concentrations of dust containing iron oxide can cause a benign condition termed "pulmonary siderosis". This condition is not associated with any physical impairment of lung function.

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 1,000 mg/l
Exposure time: 96 h

Persistence and degradability

No data available

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

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

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US State Regulations

Massachusetts Right To Know

Iron (III) Oxide	1309-37-1

Pennsylvania Right To Know

C.I. Pigment Black 11	1317-61-9
Iron (III) Oxide	1309-37-1

California Prop. 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

Potential exposure to some or all of the California Proposition 65 chemicals in this product have been determined to be below the No Significant Risk Level (NSRL).

TSCA inventory
TSCA : All substances listed as active on the TSCA inventory

TSCA list

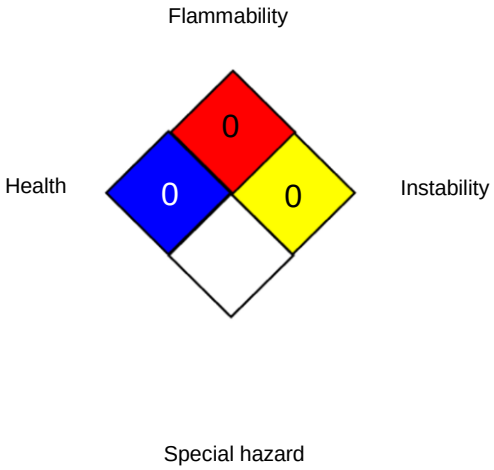
No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

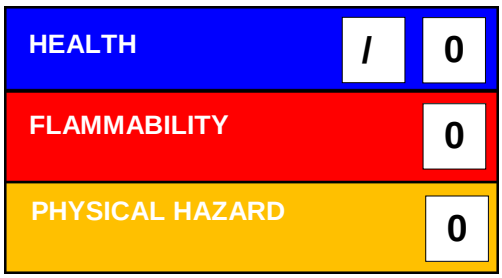
SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



HMIS® IV:



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

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
OSHA Z-1 / TWA	:	8-hour time weighted average

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); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; 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; 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

Revision Date : 10/19/2022

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.