

Piirox® B950

This product is not classified as dangerous. A safety data sheet is not required for this product under Article 31 of REACH. This SDS has been created on a voluntary basis.

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

1.1 Product identifier

Product name: Piirox B950
REACH Substance Name: Zinkferrite
EG-No.: 269-103-8
CAS-No.: 68187-51-9
REACH-Registrierungsnr.: 01-2119457570-39-0006
Other names: C.I. Pigment yellow 119 (77496), Zinc-ferrite ZnFe2O4

1.2 Relevant identified uses of the substance or mixture and uses advised against

Not known
Suitable uses : Colorants (pigments and dyestuffs), inorganic

1.3 Details of the supplier of the safety data sheet supplier

PIGMENT INTERNATIONAL GmbH & Co. KG
Helmholtzstr. 10-12
40764 Langenfeld, Germany

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1.4 Emergency telephone

+49 904 7337 (office times), +49 30-30686700 (24h)

Section 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 3: Composition/information on ingredients

3.1 Product definition (REACH) : Mono-constituent substance Zinc-ferrite ZnFe₂O₄

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting in this section, in accordance with EU or national regulations.

Section 4: First aid measures

4.1 Description of first aid measures

Inhalation

Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact

No special measures required.

Eye contact

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Ingestion

No special measures required.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of any immediate medical attention and special treatment needed

See Section 11 for more detailed information on health effects and symptoms.

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

No specific fire or explosion hazard.

No hazardous combustion products.

5.3 Advice for fire fighters

No special precautions 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

6.1 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. Provide adequate ventilation. Put on appropriate personal protective equipment (see Section 8). Hazard of slipping on spilt product.

6.2 Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and materials for containment and cleaning up

Small spill:

Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

Large spill:

Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4 Reference to other sections

See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

Section 7: Handling and storage

7.1 Precautions for safe handling

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.

Advice on protection against fire and explosion: Provide appropriate exhaust ventilation at places where dust is formed.

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.

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. 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.

Advice on common storage : No materials to be especially mentioned.

Storage class (TRGS 510) : 13, Non Combustible Solids

Further information on storage stability: Keep in a dry place.

No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Not available.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Dust Basis: DE DFG MAK

10 mg/m³

Peak-limit: excursion factor (category): 2; II

Value type (Form of exposure): AGW (Inhalable fraction)

Basis: DE TRGS 900

Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

1,25 mg/m³

Peak-limit: excursion factor (category): 2; II

Value type (Form of exposure): AGW (Alveolate fraction)

Basis: DE TRGS 900

Further information: When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
zinc ferrite brown spinel	68187-51-9	MAK (measured as the alveolate fraction)	0,1 mg/m ³	DE DFG MAK
	Peak-limit: excursion factor (category): 4; I			
	Further information: Zinc chloride: peak limit I(1), Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			
		MAK (inhalable fraction)	2 mg/m ³	DE DFG MAK
	Peak-limit: excursion factor (category): 4; I			
	Further information: Zinc chloride: peak limit I(1), Damage to the embryo or foetus is unlikely when the MAK value or the BAT value is observed			

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

Ingredient name	Type	Exposure	Value	Population	Effects
Piiox B950	DNEL	Long term Inhalation	10 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
Conclusion/Summary : Dust Inhalable 10 mg/m ³ , Respirable dust 3 mg/m ³					

Predicted No Effect Concentration (PNEC)

Ingredient name	Compartment Detail	Value	Method Detail	Remarks
Piiox B950				
Conclusion/Summary : PNECs Not applicable.				

Recommended monitoring procedures

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

8.2 Exposure controls**8.2.1 Technical measures**

Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

8.2.2 Personal protection measures**Eye protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields

Skin protection

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

Recommended: Dust-protection mask

Hand protection

Recommended: gloves

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.3 Environmental exposure controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance	
- Physical state:	powder
- Colour:	orange
Odour:	odorless
pH:	5 to 8 (5% aqueous suspension)
Melting point:	> 1000°C
Vapour pressure:	not available.
Density:	approx. 5,2 kg/l at 20°C
Solubility :	< 0,001 g/l (Wasser)
Decomposition temperature :	not available

9.2 Other information

No additional information.

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 stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

No specific data.
not available

10.5 Incompatible materials

No specific data.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological information**11.1 Information on toxicological effects****Potential acute health effects**

Eye contact: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Piiox B950	LD50 Oral	rat	> 10.000 mg/kg		

Irritation/Corrosion

Skin : Non-irritating. *Test results on an analogous product
Eyes : Non-irritating. *Test results on an analogous product

Potential chronic health effects Mutagenicity

Product/ ingredient name	Test	Experiment	Result
Piiox B950	Ames Test	Experiment: In vitro Subject: Bacteria	Negativ

Chronic effects : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Carcinogenicity

Not classified due to lack of data.

Reproductive toxicity

Not classified due to lack of data.

STOT - single exposure

Not classified due to lack of data.

STOT - repeated exposure

Not classified due to lack of data.

Aspiration toxicity

Not classified due to lack of data.

11.2 Information on other hazards**Product:**

Assessment : the substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product: Remarks : Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

Section 12: Ecological information**12.1 Toxicity**

Product/ ingredient name	Test	Result	Species	Exposure
Piiox B950	EU C.2	Akut LC50 >1000 mg/l Test results on analogous product	Fish - Leuciscus idus	48 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition

coefficient (KOC) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects

Other adverse effects : Not available.

AOX : Not available.

Remarks : No known significant effects or critical hazards.

12.7 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Section 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal

Examine possibilities for re-utilisation. Product residues and uncleaned empty containers should be packaged, sealed, labeled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. 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).

Hazardous waste

Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

Packaging

Methods of disposal

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

Conform to regulation (EC) No. 1907/2006 (REACH) and all subsequent amendments

Product name: Piiox B950

Version 2.0 /E

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This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14: Transport information

	ADR/RID	ADN/ADNR	IMDG	IATA
14.1 UN number	-----	-----	-----	-----
14.2 UN proper shipping name	-----	-----	-----	-----
14.3 Transport hazard class(es)/ Marks	-----	-----	-----	-----
14.4 Packing group	-----	-----	-----	-----
14.5 Environmental hazards	No.	No.	No.	No.
14.6 Special precautions for user/Additional information	Not regulated.	Not regulated.	Not regulated.	Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available.

Hazard notes:

Not dangerous cargo.

Keep separated from foodstuffs.

Section 15: Regulatory information

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

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

Not applicable

International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors :

Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) . :

This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

Regulation (EU) No 2024/590 on substances that deplete the ozone layer :

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) :

Not applicable

Council Regulation (EC) No 273/2004 on drug precursors :

Not applicable

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals :

Not applicable

REACH - List of substances subject to authorisation (Annex XIV) :

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.

Not applicable

Water hazard class (Germany)

nwg not water endangering

Remarks: Classification according to AwSV, Annex 1 (5)

15.2 Chemical Safety Assessment: A Chemical Safety Assessment is not required for this substance.

Section 16: Other information

Full text of other abbreviations

DE DFG MAK : Germany. MAK BAT Annex IIa

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

DE DFG MAK / MAK : MAK value

DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; 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 Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Conform to regulation (EC) No. 1907/2006 (REACH) and all subsequent amendments

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Notice to reader

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.
