

Safety Data Sheet

according to Regulation (EC) No 1272/2008 (REACH)

Pigments (with titanium dioxide)
Status 09.2021

edelundstein⁺

FOR YOUR WALLS AND FLOORS

Version 2

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

1.1 Product identifier

Designation Colour pigments ES00, ES02, ES03, ES04, ES05, ES06, ES13, ES14, ES21, ES22, ES23, ES24, ES25, ES34, ES111, ES112, ES113, ES115, ES116, ES120, ES121

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

Recommended Uses: Powder pigment for coloring concrete products.

Uses Not Recommended: None

1.3. details of the supplier providing the safety data sheet

Company name **edelundstein GmbH**
Address **Einsteinstraße 12**
Location and country **33104 Paderborn**
GERMANY
Phone +49 5254 9330731
Fax + +49 5254 9330733

Email from the knowledgeable person, **info@edel-und-stein.com**
which is responsible for the safety data sheet.

1.4 Emergency number

For urgent information contact; Technical information: Dr. Felix Ferlemann 0170 / 7362924

SECTION 2. potential hazards

2.1 Classification of the substance or mixture.

CLP classification: The product is to be classified as non-hazardous according to the regulations for classification and labelling of substances (EC 1272/2008). The product is to be classified as non-hazardous according to the regulations for classification and labelling of substances (67/548/EEC) or (1999/45/EC).

Significant effects: May cause mild irritation to skin and eyes.

2.2 Identification elements.

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

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



Signal word **Warning**

Hazard warnings

H351 Suspected of causing cancer by inhalation.

EUH212Caution ! Hazardous respirable dust may be generated during use. Do not inhale dust.

Safety instructions

P201 Obtain special instructions before use.

P202Before use, read all safety instructions.

Read and understand.

P280Protective gloves/protective clothing/

Wear eye/face protection

P308+313 IF exposed or if affected:

Obtain medical advice/medical

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get help
P405 Keep under lock and key

2.3 Other hazards.

Data not available.

SECTION 3 Composition/Information on ingredients

3.1. substances.

Information not applicable.

3.2 Mixtures.

Contains:

Registration- CAS/ Substance CLP- w/w% Note, EC-No. Classifications:

I) 01-2119457614-35 1309-37-1 Dieisene trioxide --- 90-99,9 13) 215-168-2

II) 01-2119457646-28 1317-61-9 Trieisentetra- --- 97,5-100 13) 215-277-5

III) 01-2119457646-28 1317-61-9 Trieisentetra- --- 90-99,9 13) 215-277-5

IV) 01-2119457554-33 51274-00-1 Iron hydroxide --- 90-99,9 13) 257-098-5 yellow

V) 01-2119433951-39 1308-38-19 chromium --- 90-99,9 13) 215-160-9 oxide

VI) 01-2119457614-35 1309-37-1 Dieisene trioxide --- 95-97 13) 215-168-2

VII) 01-2119457554-33 51274-00-1 Iron hydroxide --- 90-99,9 13) 257-098-5 yellow

VIII) 13463-67-7 Titanium dioxide --- 236-675-5 --- Standard designation DIN EN ISO 591-1

Note: the top range value is excluded.

The detailed text of the risk phrases (R) and hazard statements (H) is given under section 16 of the supplement.

T+ = Very toxic(T+), T = Toxic(T), Xn = Harmful(Xn), C = Corrosive(C), Xi = Irritant(Xi), O = Oxidizing(O), E = Explosive(E),

F+ = Extremely flammable(F+), F = Highly flammable(F), N = Environmentally hazardous(N)

SECTION 4. first aid measures

4.1 Description of first aid measures.

Inhalation: Provide fresh air.

Ingestion: Rinse mouth thoroughly and drink 1-2 glasses of water in small sips. For consult a doctor if you feel unwell for any length of time.

Skin: Remove contaminated clothing, watch and jewellery. Wash skin with soap and water.

Eyes: Flush with water (eye wash bottle preferred) until irritation subsides. Seek medical advice if symptoms persist.

Other information: Show this safety data sheet or label to physician.

4.2 Most important symptoms and effects, both acute and delayed.

Most important symptoms and effects, both acute and delayed: May cause mild irritation to skin and eyes.

4.3. indications of immediate medical attention or special treatment.

Indication of any immediate medical attention and special treatment needed: No special immediate treatment needed.

SECTION 5 Fire-fighting measures

5.1 Extinguishing media.

SUITABLE EXTINGUISHING AGENTS

The extinguishing agents are the usual ones: Carbon dioxide, foam, powder and water mist.

UNSUITABLE EXTINGUISHING AGENTS

No big deal.

5.2 Special hazards arising from the substance or mixture.

HAZARDS RESULTING FROM EXPOSURE TO FIRE

Avoid inhalation of combustion products.

5.3 Fire fighting instructions.

If there is a risk of exposure to vapour and exhaust gases, a self-contained breathing apparatus must be worn.

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SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures.

Personal precautions, protective equipment and emergency procedures

Non-emergency trained personnel: Wear safety glasses/face shield. Wear gloves.

Emergency personnel: Wear gloves. Normal protective clothing according to EN 469 is recommended.

6.2 Environmental protection measures.

Prevent the product from entering waste water, surface water, ground water.

6.3 Methods and material for containment and cleaning up.

Methods and material for containment and clean-up: Sweep up/collection and recycle spill or place in appropriate waste containers. Do not sweep up - collect spillage with vacuum cleaner.

6.4 Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7 Handling and storage

7.1 Protective measures for safe handling.

Precautions for safe handling: Ensure access to running water and eye wash bottle. Provide exhaust ventilation in case of dust formation. The product is not flammable.

7.2 Conditions for safe storage taking into account incompatibilities

Let's look at applicability:

Conditions for safe storage taking into account incompatibilities: Store in tightly closed original packaging. Store below 5 to 30°C. LGK 13

7.3 Specific end uses.

Powder paint.

SECTION 8. exposure controls/personal protective equipment

8.1 Parameters to be monitored.

concentration limits in the workplace:

Ingredients: Concentration values: Remark:

Dust, alveolar fraction

Dust, Inhalable fraction

3 mg/m³

10 mg/m³

Legal basis: Grenzwerte in der Luft am Arbeitsplatz "Luftgrenzwerte" TRGS 900, Ausgabe Januar 2006 (in der Fassung späterer Änderungen)

Measurement methods: Compliance with the specified concentration limits in the workplace can be verified by appropriate hygiene measurements. DNEL-Werte: 1309-37-1/215-168-2

Inhalation: DNEL (long-term exposure - systemic effects) 3mg/m³

Main effect parameters Repeated dose toxicity

Inhalation: DNEL (long-term exposure - local effects) 3mg/m³

Main effects parameters Repeated dose toxicity PNEC values: Not relevant

8.2 Exposure controls.

As the (iron) oxides are not classified, there are no exposure scenarios in the Chemical Safety Report.

Suitable technical control devices:

Wash hands before breaks, toilet visits and after work. Wear the personal protective equipment specified below.

Personal protective equipment, eye/face protection: Wear safety goggles if dust is generated.

Personal protective equipment, skin protection: Wear protective gloves made of plastic or rubber.

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Personal protective equipment, respiratory protection: Not required. In case of insufficient ventilation wear respiratory protection with filter P2.

Environmental exposure controls: Ensure compliance with local emission regulations.

SECTION 9 Physical and chemical properties

9.1. information on the basic physical and chemical properties.

Condition: Powder

Colour: per colour scale

Odour: Odourless

Odour threshold: No data

pH : 4-6 [Conc. (%w/w):approx. 55%]

Melting point/freezing point: No data

Initial boiling point and boiling range: No data available

Flash point: No data

Evaporation rate: No data

Flammability (solid, gaseous): No data

Upper/lower flammability limits: No data

Upper/lower explosion limits: No data

Vapour pressure: No data

Vapour density: No data

Relative density: 4.5 - 5.5 g/cm³

Solubility: No data

Partition coefficient n-octanol/water: no data

Auto-ignition temperature: No data

Decomposition temperature: No data

Viscosity: No data

Explosive properties: No data

Oxidizing properties: No data

9.2 Other information.

Data not available.

SECTION 10. Stability and reactivity

10.1 Reactivity.

No particular reaction hazards with other substances under normal conditions of use.

10.2 Chemical stability.

The product is stable under normal processing and storage conditions.

10.3 Possibility of hazardous reactions.

Under normal conditions of use and storage, no hazardous reactions are foreseen.

10.4 Conditions to avoid.

None in particular. However, the usual caution with chemical products must be observed.

10.5 Incompatible materials.

Data not available.

10.6 Hazardous decomposition products.

Data not available.

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SECTION 11 Toxicological information

11.1 Information on toxicological effects.

Acute toxicity - oral: The product does not require classification. Based on available data, the classification criteria are not met.
1309-37-1/215-168-2

Rat: LC50 >2000 mg/kg bw/day (CSR)

Acute toxicity - dermal: The product does not need to be classified. Test data are not available.

Acute toxicity - inhalation: The product does not require classification. Based on available data, the classification criteria are not met.

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Rat, particulate, 6h: LC50 >95.8 mg/m³ (CSR)

Skin burn/irritation: The product does not need to be classified. Based on available data, the classification criteria are not met.

1309-37-1/215-168-2

Human: Non-irritant (CSR)

Serious eye damage/eye irritation:

The product does not need to be classified. Based on the available data, the

Classification criteria not met.

1309-37-1/215-168-2

Human: Non-irritant (CSR)

Sensitization of the respiratory tract or skin:

The product does not need to be classified. Based on available data, the classification criteria are not met.

1309-37-1/215-168-2

Man: Non-sensitizing (CSR)

Germ cell mutagenicity: The product does not need to be classified. Based on available data, the classification criteria are not met.

1309-37-1/215-168-2

No mutagenic effects observed

Carcinogenic properties:

The product does not need to be classified. Based on available data, the classification criteria are not met.

1309-37-1/215-168-2

No carcinogenic effects observed.

Reproductive toxicity: The product does not need to be classified. Based on available data, the classification criteria are not met.

1309-37-1/215-168-2

No indications.

Simple STOT exposure: Test data are not available. Product does not require classification.

Repeated STOT exposures:

Test data is not available. The product does not need to be classified.

1309-37-1/215-168-2

Rat, 52.1mg/m³, 13 w:

NOAEC: 10.1 mg/m³ for the subacute exposure 4.7 mg/m³ for subchronic exposure in Rats (CSR)

Aspiration hazard: Test data are not available. The product does not need to be classified.

Other toxicological properties:

Not known.

SECTION 12 Environmental information

The product does not need to be classified. Based on available data, the classification criteria are not met.

Acute toxicity: 1309-37-1/215-168-2;

Fish: Danio rerio 96hLC50: >50,000 mg/l (CSR)

Crustaceans: Daphnia magna: 48hEC50 >100 mg/l (CSR)

12.1 Toxicity.

Toxicity to fish

CAS: 13463-67-7 Titanium dioxide

LC50 > 10,000 mg/l (gemstone carp)
(semistatic, OECD 203 (acute fish toxicity))
> 1000 mg/l (Pimephales promelas)

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(static, EPA-540/9-85-006 (Acute Toxicity test for Freshwater Fish))

Toxicity to daphnia and other aquatic invertebrates

CAS: 13463-67-7 Titanium dioxide

LC50 > 10,000 mg/l (Acartia tonsa)

(ISO 14669 (1999); ISO 5667-16 (1998))

> 1,000 mg/l (large water flea)

(static, OECD 202 (test for acute swimming incapacity, Daphnia))

Toxicity to algae and aquatic plants

CAS: 13463-67-7 Titanium dioxide

EC50 > 100 mg/l (Pseudokirchneriella subcapitata)

(static, OECD 201 (freshwater algae and cyanobacteria: growth inhibition test))

> 10,000 mg/l (Skeletonema costatum)

(ISO 10253)

Toxicity to sediment organisms

CAS: 13463-67-7 Titanium dioxide

NOEC \geq 100,000 mg/kg dw (Hyalella azteca)

(semi-static, ASTM 1706)

12.2 Persistence and degradability.

Not relevant for inorganic substances.

12.3 Bioaccumulative potential.

Does not accumulate in organisms.

12.4 Mobility in soil.

The substance is not mobile in the soil.

12.5 Results of PBT and vPvB assessment.

Results of PBT and vPvB assessment: The mixture does not meet the criteria for PBT or vPvB.

12.6 Other adverse effects.

Data not available.

SECTION 13. Disposal instructions

13.1 Waste treatment processes.

Disposal methods: Check for reusability. Pack or seal product waste and uncleaned empty containers, label them and dispose of or reuse them appropriately in accordance with national regulations. In the case of larger quantities, consult the supplier. If uncleaned empty containers are passed on, the customer must be informed of the possible danger from product residues. For disposal within the EU, the respective valid waste code according to the European Waste Catalogue (EWC) must be used. Among other things, it is the responsibility of the waste producer to assign industry and process type-specific waste codes to his waste according to the European Waste Catalogue (EWC).

SECTION 14. Transport information

The product is not dangerous according to the regulations in force in the field of road transport of dangerous goods (A.D.R.), by rail (RID), by sea (IMDG Code) and by air (IATA).

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SECTION 15 Legislation

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

Special provisions: No.

Observe Major Accidents Ordinance V: No

Technical Instructions on Air Quality: The product does not contain any classified substances.

Water hazard class: 0: WGK= NWG not hazardous to water

Components of the product listed in TRGS 905: none

15.2 Chemical Safety Assessment.

Chemical safety assessments have been carried out for the following products:

Dieisen trioxide, trieisen tetra, iron hydroxide, chromium, titanium dioxide

SECTION 16 Other information

Changes were made to the following sections: 11,12 Test data.

Explanation of abbreviations: PBT: Persistent, Bioaccumulative and Toxic vPvB: Very Persistent and Very Bioaccumulative

DNEL: Derived No Effect Level PNEC: Predicted No Effect Concentration

Method of classification: test data calculation on the background of the hazards for the known constituents.

STATEMENT:

- ADR: European Agreement concerning the Carriage of Dangerous Goods by Road
- CAS NUMBER: Number of the Chemical Abstract Service
- CE50: Effective concentration in 50% of the population exposed to the test.
- CE NUMBER: ESIS identification number (European repository of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived no-effect level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
- IATA DGR: International Air Transport Association Regulation on the Carriage of Dangerous Goods
- IC50: immobilisation concentration at 50% of the population subjected to the test
- IMDG: International Maritime Dangerous Goods Code
- IMO: International Maritime Organisation
- INDEX NUMBER: identification number in Annex VI to CLP
- LC50: Lethal concentration 50%
- LD50: Lethal dose 50%
- OEL: occupational exposure level
- PBT: Persistent bioaccumulative and toxic according to REACH
- PEC: foreseeable environmental concentration
- PEL - foreseeable exposure level
- PNEC: foreseeable no-effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- TLV: threshold limit value
- TVL CEILING: this concentration must never be exceeded during work exposure.
- TWA STEL: short-term suspension limit
- TWA: medium-term weighted exposure limit
- VOC: volatile organic compound
- vPvP: very persistent and very bioaccumulative according to REACH.

GENERAL BIBLIOGRAPHY:

1. directive 1999/45/EC and subsequent amendments
2. directive 67/548/EEC and subsequent amendments and adaptations
3. regulation (EC) 1907/2006 of the European Parliament (REACH)

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4. regulation (EC) 1272/2008 of the European Parliament (CLP)
5. regulation (EC) 790/2009 of the European Parliament (I Atp. CLP)
6. regulation (EC) 453/2010 of the European Parliament
7. regulation (EC) 286/2011 of the European Parliament (II Atp. CLP)
- 8 The Merck Index. Ed. 10
9. handling chemical safety
- 10 Niosh - Registry of Toxic Effects of Chemical Substances
- 11 INRS - Fiche Toxicologique
12. Patty - Industrial Hygiene and Toxicology
13. N.I. Sax - Dangerous properties of Industrial Materials-7 Ed., 1989
14. ECHA Agency website

Explanation for the user:

The information contained in this card is based on the knowledge available to us on the date of the latest version. The user must ensure the suitability and completeness of the information regarding the specific use of the product.

This document must not be interpreted as a guarantee of any specific characteristic of the product.

Because the use of the product is not directly controlled by us, the user has the obligation, under his own responsibility, to respect the laws and regulations in force in the field of hygiene and safety. We cannot be held responsible for incorrect use.

The personnel entrusted with the handling of chemicals must be trained accordingly.