

Safety data sheet

according to Regulation (EC) No 1907/2006 (REACH)

Pigments (without titanium dioxide)
Status 09.2021

Version 2

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

1.1 Product identifier

Designation Colour pigment ES01, ES08, ES09, ES12, ES15, ES16, ES17, ES18, ES19, ES20, ES26, ES27, ES28, ES29, ES30, ES31, ES32, ES33, ES35, ES37, ES38, ES39, ES40, ES41, ES43, ES44, ES45, ES46, ES47, ES48, ES49, ES50, ES51, ES117, ES118, ES123, ES125, ES126, ES200, ES201, ES202, ES203, ES204, ES205, ES206, ES207, ES300, ES302, ES303, ES304, ES305

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

Recommended uses: Powder pigment for colouring concrete products.

Not recommended uses: 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
Tel. +49 5254 9330731
Fax + +49 5254 9330733

E-mail of the competent person, **info@edel-und-stein.com**
responsible for the safety data sheet.

1.4. emergency number

For urgent information contact; Technical information: Dr Felix Ferlemann +49 170 / 7362924

SECTION 2. possible hazards

2.1 Classification of the substance or mixture.

CLP classification: The product shall be classified as non-hazardous in accordance with the provisions 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.

2.1.1 Regulation 1272/2008 (CLP) and subsequent amendments and adaptations.

Hazard classification and indication: None

2.1.2. Directive 67/548/EEC and 1999/45/EC and subsequent amendments and adaptations.

None

2.2 Marking elements.

None

2.3 Other hazards.

Data not available.

SECTION 3. composition/information on ingredients

3.1. substances.

Information not applicable.

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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

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 = Oxidising(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. At 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 (preferably with eye wash bottle) until irritation subsides. Seek medical advice if symptoms persist.

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

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 for immediate medical help 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

Nothing special.

5.2 Special hazards arising from the substance or mixture.

HAZARDS AS A RESULT OF EXPOSURE TO FIRE

Avoid inhalation of combustion products.

5.3 Advice for fire fighting.

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

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 protective goggles/face shield. Wear gloves.

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

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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.

Methods and material for containment and clean-up: Sweep up/collection of spilled substance and recycle or place in suitable 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: Access to running water and eye wash bottle should be ensured.

7.2 Conditions for safe storage taking into account incompatibilities

Let's look at the 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 at the workplace:

Ingredients: Concentration values: Remark:

Dust, alveolar fraction

Dust, Inhalable fraction

3 mg/m³

10 mg/m³

Legal basis: Limit values in the air at the workplace "Luftgrenzwerte" TRGS 900, January 2006 edition (as amended by later amendments).

Measurement methods: Compliance with the stated concentration limits at the workplace can be checked by means of 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 effect parameters Repeated dose toxicity PNEC values: No relevance

8.2 Exposure controls and monitoring.

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 protective goggles in case of dust formation.

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

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.

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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
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
Oxidising properties: No data

9.2 Other information.

Data not available.

SECTION 10. Stability and reactivity

10.1 Reactivity.

No special 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 need to be classified. 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 need to be classified. Based on available data, the classification criteria are not met.
1309-37-1/215-168-2

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)

Sensitisation 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

Human: Non-sensitising (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. The product does not need to be classified.

Repeated STOT exposures:

Test data are 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.

Data not available.

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12.2 Persistence and degradability.

Data not available.

12.3 Bioaccumulative potential.

Data not available.

12.4 Mobility in soil.

Data not available.

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 risk of 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 sector- 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).

SECTION 15 Legislation

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

Special provisions: No.

Observe Major Accidents Ordinance V: No

Technical Instructions on Air Quality Control: 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,

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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.

R-phrases: No R-phrases

H-phrases: No H-phrases

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 Harmonised 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 experiment
- 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: Predicted Environmental Concentration
- PEL - predictable 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)
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

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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. No liability is accepted for incorrect use.

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