



E172 BROWN IRON OXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 12/1/2020 Revision date: 12/1/2020 Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : E172 BROWN IRON OXIDE
Product group : Finished Product

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Town End (Leeds) plc
Silver Court
Intercity Way, Stanningley
LS13 4LY Leeds - United Kingdom
T +44 (0)113 256 4251 - F +44 (0)113 239 3315
msds@dyes.co.uk - www.dyes.co.uk

1.4. Emergency telephone number

Emergency number : +44 (0)113 256 4251

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Precautionary statements (CLP) : P251 - Do not pierce or burn, even after use.
P273 - Avoid release to the environment.
P301+P312 - IF SWALLOWED: Call a POISON CENTER, doctor if you feel unwell.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
E172 BLACK IRON OXIDE	(CAS-No.) 12227-89-3 (EC-No.) 235-442-5 (REACH-no) 01-2119457646-28	≥ 60 – < 70	Not classified
E172 DURANAT RED IRON OXIDE	(CAS-No.) 1309-37-1 (EC-No.) 215-168-2	≥ 30 – < 40	Not classified
Silicon Dioxide	(CAS-No.) 7631-86-9 (EC-No.) 231-545-4	≥ 1 – < 10	Not classified
77492	(CAS-No.) 51274-00-1 (EC-No.) 257-098-5	≥ 1 – < 10	Not classified

E172 BROWN IRON OXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
First-aid measures after skin contact	: Wash skin with plenty of water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Do NOT induce vomiting. If you feel unwell, seek medical advice.

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

Symptoms/effects after inhalation	: Under normal conditions of use, no adverse effects to health have been observed. May cause respiratory irritation.
Symptoms/effects after skin contact	: Under normal conditions of use, no adverse effects to health have been observed.
Symptoms/effects after eye contact	: Direct contact with the eyes is likely to be irritating.
Symptoms/effects after ingestion	: Under normal conditions of use, no adverse effects to health have been observed.
Chronic symptoms	: None known.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: In case of fire and/or explosion do not breathe fumes. Decomposition products may be a hazard to health.
Reactivity in case of fire	: None known.
Hazardous decomposition products in case of fire	: Hazardous vapours may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area. Eliminate all ignition sources if safe to do so.
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Ensure adequate ventilation. Eliminate every possible source of ignition. Evacuate area.
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6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
Emergency procedures	: Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Ensure adequate ventilation. In case of inadequate ventilation wear respiratory protection.
Precautions for safe handling	: Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment as required.
Hygiene measures	: Always wash hands after handling the product. Wash contaminated clothing before reuse.

E172 BROWN IRON OXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed in a cool, well-ventilated place. Protect from moisture.
Incompatible products : Strong acids. Strong bases.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:

Refer to manufacturer's information

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemical resistant gloves (according to European standard EN 374 or equivalent)	Nitrile rubber (NBR), Butyl rubber, Latex, Polyvinylchloride (PVC), Neoprene protective gloves	6 (> 480 minutes)		Gloves must be replaced after each use and whenever signs of wear or perforation appear	EN ISO 374

Eye protection:

Chemical goggles or safety glasses. Refer to manufacturer's information

Type	Use	Characteristics	Standard
Safety glasses	Dust, Fine dust		EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear appropriate mask

Device	Filter type	Condition	Standard
Respiratory protective device with a particle filter	Type P1, Type P2, Type P3	Protection for Liquid particles, Vapour protection	EN 149

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : brown.
Odour : No data available
Odour threshold : No data available
pH : No data available
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available

E172 BROWN IRON OXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Not known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide and dioxide, smoke, nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

E172 BLACK IRON OXIDE (12227-89-3)

LD50 oral rat	> 10000 mg/kg
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E172 DURANAT RED IRON OXIDE (1309-37-1)

LD50 oral rat	≤ 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 7000 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified

E172 BROWN IRON OXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

E172 BLACK IRON OXIDE (12227-89-3)

EC50 72h algae (1)	18 mg/l
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E172 DURANAT RED IRON OXIDE (1309-37-1)

EC50 Daphnia 1	> 100 mg/l
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12.2. Persistence and degradability

E172 BROWN IRON OXIDE

Persistence and degradability	Not established.
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E172 BLACK IRON OXIDE (12227-89-3)

Persistence and degradability	Not readily biodegradable.
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E172 DURANAT RED IRON OXIDE (1309-37-1)

Persistence and degradability	Not readily biodegradable.
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12.3. Bioaccumulative potential

E172 BROWN IRON OXIDE

Bioaccumulative potential	Not established.
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E172 BLACK IRON OXIDE (12227-89-3)

Bioaccumulative potential	Not potentially bioaccumulable.
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E172 DURANAT RED IRON OXIDE (1309-37-1)

Bioaccumulative potential	Low bioaccumulation potential.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information	: Avoid release to the environment.
Metal Content	:
Metal	:
AOX Value	:

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

E172 BROWN IRON OXIDE

Safety Data Sheet

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14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				
14.6. Special precautions for user				
Overland transport				
Not applicable				
Transport by sea				
Not applicable				
Air transport				
Not applicable				
Inland waterway transport				
Not applicable				
Rail transport				
Not applicable				
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code				
Not applicable				

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

No additional information available

SDS EU (REACH Annex II) TOWN END

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.