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

1.1. Product identifier

Mixture identification:

Trade name: FASSAFER MONO
Trade code: 494
UFI: GEC1-Y0HF-H00Q-E709

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

Recommended use: One-component cementitious grout for protecting reinforcing bars against corrosion

1.3. Details of the supplier of the safety data sheet

Company: FASSA Srl
Via Lazzaris, 3 - 31027 Spresiano (TV) - Italy
Tel. +39 0422 7222
Fax +39 0422 887509

Imported in the UK:
FASSA UK LTD
Ashchurch Business Centre,
Alexandra Way, Ashchurch, Tewkesbury GL20 8TD- UK
Tel. +44 (0) 1684.212272

Responsable: laboratorio.spresiano@fassabortolo.it

1.4. Emergency telephone number

NHS 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) n. 1272/2008 (CLP)

Skin Irrit. 2	Causes skin irritation.
Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1	May cause an allergic skin reaction.
STOT SE 3	May cause respiratory irritation.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements

Regulation (EC) No 1272/2008 (CLP):

Hazard pictograms and Signal Word

Danger

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statements

P261	Avoid breathing dust.
P280	Wear protective gloves and eye/face protection.
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.

P310 Immediately call a POISON CENTER/doctor.

P501 Dispose of contents/container in accordance with national regulation.

Contains:

Portland cement clinker

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

The product has been classified according to Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%.

The mixture has a low chromium content. In the ready-to-use formulation, after adding water, the maximum soluble hexavalent chromium content is 2 mg/kg dry weight. To ensure a low chromium content, it is nevertheless essential to store the product correctly, in a dry place and for no longer than the maximum specified shelf life. The percentage of respirable crystalline silica is less than 1%. Identification of the product is not therefore mandatory. Respiratory protective equipment is however recommended.

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: FASSAFER MONO

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number:
≥30 - <50 %	Portland cement clinker	CAS:65997-15-1 EC:266-043-4	Skin Irrit. 2, H315; Eye Dam. 1, H318; Skin Sens. 1B, H317; STOT SE 3, H335	Exempted
≥0.5 - <1 %	sodium nitrite	CAS:7632-00-0 EC:231-555-9	Ox. Sol. 2, H272; Acute Tox. 3, H301; Eye Irrit. 2, H319; Aquatic Acute 1, H400, M-Acute:1	01-2119471836-27-xxxx

Classifications according to Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Remove contaminated clothing immediatley and dispose off safely.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

In case of inhalation, consult a doctor immediately and show him packing or label.

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

The symptoms and effects are as expected from the hazards as shown in section 2.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

CO2, powder extinguisher, foam, water spray.

Product is not flammable.

Extinguishing media which must not be used for safety reasons:

Water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke.

In the event of fire and/or explosion do not breathe fumes.

5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non emergency personnel:

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

See protective measures under point 7 and 8.

For emergency responders:

Wear personal protection equipment.

Dry vacuuming using suitable equipment.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

After the product has been recovered, rinse the area and materials involved with water.

Retain contaminated washing water and dispose it.

In the event of accidental spillage, remove the product by dry vacuuming.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid contact with the skin and eyes and inhalation of dust.

Avoid operations that cause the spread of dust.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Advice on general occupational hygiene:

Contamined clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Control of soluble hexavalent chromium:

For cements treated with a hexavalent chromium reducing agent, in accordance with the regulations given in section 15, the effectiveness of the reducing agent diminishes with time. The packaging of the material therefore includes information on the production date and the appropriate storage conditions and period to maintain the activity of the reducing agent and keep the content of soluble hexavalent chromium below 2 ppm of the total dry weight of the cement, in accordance with EN 196-10.

Incompatible materials:

See chapter 10.5

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

Recommendation(s)

See chapter 1.2

Industrial sector specific solutions:

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Community Occupational Exposure Limits (OEL)

Portland cement clinker

CAS: 65997-15-1	OEL Type	ACGIH		Long Term: 1 mg/m3 Notes: (E,R), A4 - Pulm func, resp symptoms, asthma
	OEL Type	MAK	AUSTRIA	Long Term: 5 mg/m3 Notes: Inhalable aerosol
	OEL Type	VLEP	BELGIUM	Long Term: 1 mg/m3 Notes: Respirable fraction
	OEL Type	VLA	SPAIN	Long Term: 4 mg/m3 Notes: Respirable fraction
	OEL Type	ÁK	HUNGARY	Long Term: 10 mg/m3 Notes: Inhalable fraction
	OEL Type	SUVA	SWITZERLAND	Long Term: 5 mg/m3 Notes: Inhalable aerosol
	OEL Type	WEL	U.K.	Long Term: 10 mg/m3 Notes: Inhalable aerosol Long Term: 4 mg/m3 Notes: Respirable aerosol
	OEL Type	GVI	CROATIA	Long Term: 10 mg/m3 Notes: Inhalable aerosol Long Term: 4 mg/m3 Notes: Respirable aerosol
	OEL Type	NDS	POLAND	Long Term: 6 mg/m3 Notes: Inhalable fraction Long Term: 2 mg/m3 Notes: Respirable fraction

Predicted No Effect Concentration (PNEC) values

sodium nitrite

CAS: 7632-00-0	Exposure Route: Fresh Water; PNEC Limit: 0.005 mg/l
	Exposure Route: Marine water; PNEC Limit: 0.006 mg/l
	Exposure Route: Freshwater sediments; PNEC Limit: 0.019 mg/kg
	Exposure Route: Marine water sediments; PNEC Limit: 0.022 mg/kg
	Exposure Route: Soil; PNEC Limit: 0.001 mg/kg

Derived No Effect Level (DNEL) values

sodium nitrite

CAS: 7632-00-0	Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects Worker Professional: 2 mg/m3
	Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects Worker Professional: 2 mg/m3

8.2. Exposure controls

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

Eye protection:

Use close fitting safety goggles, don't use contact lenses.

Protection for skin:

Use suitable clothing that provides complete protection to the skin according to activity and exposure (EN 14605/EN 13982), e.g. overall, apron, safety shoes, suitable clothing.

Protection for hands:

There is no material or combination of materials for gloves that can guarantee unlimited resistance to any individual chemical or combination of chemicals.

For prolonged or repeated handling, use chemical resistant gloves.

Suitable materials for safety gloves (EN 374/EN 16523); NBR (Nitril rubber): thickness >= 0.4 mm; permeation time >= 480 min. FKM (Fluorinated rubber): thickness >= 0.4 mm; permeation time >= 480 min

The choice of suitable gloves does not only depend on the material, but also on other quality characteristics that vary from one manufacturer to another and on the manner and times according to which the mixture is used.

Respiratory protection:

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.

Particle filter device (EN 143): mask with filter P2.

Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Environmental exposure controls:

See point 6.2

Hygienic and Technical measures

See section 7.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State: Solid

Appearance: Powder

Color: blue

Odour: Odourless

Melting point/freezing point: N.D.

Boiling point or initial boiling point and boiling range: N.D.

Flammability: N.A.

Lower and upper explosion limit: N.D.

Flash point: N.A.

Auto-ignition temperature: N.D.

Decomposition temperature: N.D.

pH: >=12.00<=13.00 (50% in water dispersion)

Kinematic viscosity: N.A.

Density and/or relative density: 1700 - 1900 kg/m3 (Internal method)

Relative vapour density: N.D.

Vapour pressure: N.D.

Solubility in water: partially soluble

Solubility in oil: N.A.

Partition coefficient n-octanol/water (log value): N.A.

Particle characteristics:

Based on the available data, the product does not contain nanomaterials.

9.2. Other information

Conductivity: N.D.

Explosive properties: N.D.

Oxidizing properties: N.D.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Protect against moisture. Keep this product in a dry place.

10.5. Incompatible materials

None in particular.

See chapter 10.3

10.6. Hazardous decomposition products

None.

No hazardous decomposition products when stored and handled correctly.

See chapter 5.2

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on hazard classes as defined in the retained Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

Toxicological Information of the Preparation

a) acute toxicity	Not classified
	Based on available data, the classification criteria are not met
b) skin corrosion/irritation	The product is classified: Skin Irrit. 2(H315)
c) serious eye damage/irritation	The product is classified: Eye Dam. 1(H318)

d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1(H317)
e) germ cell mutagenicity	Not classified
	Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified
	Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified
	Based on available data, the classification criteria are not met
h) STOT-single exposure	The product is classified: STOT SE 3(H335)
i) STOT-repeated exposure	Not classified
	Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified
	Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

Portland cement clinker

CAS: 65997-15-1 a) acute toxicity LD50 Skin Rabbit > 2000 mg/kg

sodium nitrite

CAS: 7632-00-0 a) acute toxicity LD50 Oral Rat 180 mg/kg

11.2 Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

Adopt good working practices, so that the product is not released into the environment.

12.1. Toxicity

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

List of Eco-Toxicological properties of the components

sodium nitrite

CAS: 7632-00-0 a) Aquatic acute toxicity: LC50 Fish 0.54 mg/l 96h

a) Aquatic acute toxicity: EC50 Daphnia 15.4 mg/l 48h

a) Aquatic acute toxicity: EC50 Algae > 100 mg/l 72h

b) Aquatic chronic toxicity: NOEC Fish 6.16 mg/l - 31d

b) Aquatic chronic toxicity: NOEC Crustaceans 9.86 mg/l - 80d

12.2. Persistence and degradability

N.A.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration >= 0.1%

12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7 Other adverse effects

N.A.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Do not allow it to enter drains or watercourses.

Dispose of containers contaminated by the product in accordance with local or national legal provisions.
Once the product has expired, it must be disposed of in accordance with current legislation.

SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

14.1. UN number or ID number

N.A.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

Air (IATA):

N.A.

Sea (IMDG):

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Directive 2010/75/EU
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Regulation (EU) n. 2023/707
Regulation (EU) n. 2023/1434 (ATP 19 CLP)
Regulation (EU) n. 2023/1435 (ATP 20 CLP)
Regulation (EU) n. 2024/197 (ATP 21 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product: None.
Restrictions related to the substances contained: 75

Provisions related to directive EU 2012/18 (Seveso III):

None

Regulation (EU) No 649/2012 (PIC regulation)

No substances listed

German Water Hazard Class.

Class 2: hazardous for water.

SVHC Substances:

On the basis of available data, the product does not contain any SVHC in percentage ≥ 0.1%.

Relevant EU provisions transposed through retained EU legislation:

UK REACH List of restrictions (Annex XVII);

UK REACH Candidate list of substances of very high concern (SVHC) for authorisation;

UK REACK List of substances subject to authorisation (Annex XIV);

Export and import of hazardous chemicals - Prior informed consent (PIC regulation).

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Code	Description
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.

Code	Hazard class and hazard category	Description
2.14/2	Ox. Sol. 2	Oxidising solid, Category 2
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1B	Skin Sens. 1B	Skin Sensitisation, Category 1B
3.8/3	STOT SE 3	Specific target organ toxicity — single exposure, Category 3
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	Classification procedure
Skin Irrit. 2, H315	Calculation method
Eye Dam. 1, H318	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

Safety data sheets of raw materials suppliers.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate
ATEmix: Acute toxicity Estimate (Mixtures)
BEI: Biological Exposure Index
CAS: Chemical Abstracts Service (division of the American Chemical Society).
CAV: Poison Center
CE: European Community
CLP: Classification, Labeling, Packaging.
CMR: Carcinogenic, Mutagenic and Reprotoxic
COV: Volatile Organic Compound
CSA: Chemical Safety Assessment
CSR: Chemical Safety Report
DNEL: Derived No Effect Level.
EC50: Half Maximal Effective Concentration
ECHA: European Chemicals Agency
EINECS: European Inventory of Existing Commercial Chemical Substances.
ES: Exposure Scenario
GefStoffVO: Ordinance on Hazardous Substances, Germany.
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association.
IC50: half maximal inhibitory concentration
IMDG: International Maritime Code for Dangerous Goods.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LDLo: Leathal Dose Low
N.A.: Not Applicable
N/A: Not Applicable
N/D: Not defined/ Not available
N.D.: Not available
NIOSH: National Institute for Occupational Safety and Health
NOAEL: No Observed Adverse Effect Level
OSHA: Occupational Safety and Health Administration
PBT: Persistent, Bioaccumulative and Toxic
PGK: Packaging Instruction
PNEC: Predicted No Effect Concentration.
PSG: Passengers
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL: Short Term Exposure limit.
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limiting Value.
TLV-TWA: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).
vPvB: Very Persistent, Very Bioaccumulative.
WGK: German Water Hazard Class.

Paragraphs modified from the previous revision:

- SECTION 4: First aid measures
- SECTION 3: Composition/information on ingredients
- SECTION 6: Accidental release measures
- SECTION 8: Exposure controls/personal protection
- SECTION 9: Physical and chemical properties
- SECTION 11: Toxicological information
- SECTION 12: Ecological information
- SECTION 13: Disposal considerations
- SECTION 15: Regulatory information
- SECTION 16: Other information