

safety data sheet

SDS 011, V00
Date 03.03.2020

BIOFIRE

(REACH REGULATION (EC) No. 1907/2006, Article 31, 2015/830/UE)



1

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

1.1 Product identifier

Biofire **UFI** SQ2E-W3PF-C873-1GG7

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

Relevant uses Sealant.

Uses advised against All uses not specified in this section or in section 7.3.

1.3 Details of the supplier of the safety data sheet

TRIA – Serviços, Materiais e Equipamentos, SA.

Parque Industrial Manuel Lourenço Ferreira, Lote 43 - 3450-232 Mortágua

Tel. +351 231 927 480 **Fax** +351 231 921 738

E-mail geral@tria.pt **Web** www.tria.pt

E-mail para Informações técnicas qualidade@tria.pt

1.4 Emergency telephone number

(351) 231927480

2

Hazards identification

2.1 Classification of the substance or mixture

Eye Dam. 1 H318 Causes serious eye damage

2.2 Label elements

CLP Regulation (EC) No 1272/2008



GHS05

Signal Word Danger

Hazard statements

H318 Causes serious eye damage

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+310 IF SWALLOWED: Immediately call a POISON CENTER/doctor

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Substances that contribute to the classification

Calcium dihydroxide (CAS: 1305-62-0)

2.3 Other hazards

Product fails to meet PBT/vPvB criteria

3

Composition/information on ingredients;

3.1 Substances

Non-applicable

3.2 Mixtures

Mixture of complexing agents, alkali silicates and sodium carbonate

In accordance to Annex II of Regulation (EC) n°1907 / 2006 (point 3), the product contains

Identification/Chemical nome/Classification		
CAS: 1305-62-0	Calcium dihydroxide (1)	2,5 - <10%
EC: 215-137-3	CLP: Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H335; - Danger;	
EINECS: 215-137-3	GHS05, GHS07	
REACH: 01-2119475151-45		

Additional information

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

(1) Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

4

Hazards identification

4.1 Description of first aid measures

General notices

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion / aspiration

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

4.2 Most important symptoms and effects, both acute and delayed

Acute and delayed effects are indicated in points 2 and 11.

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

Non-applicable.

5

Fire-fighting measures**5.1 Extinguishing media**

Product is non-flammable under normal conditions of storage, handling and use.

In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6

Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

6.2 Environmental precautions

This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

6.4 Reference to other sections

See sections 8 and 13.

7

Handling and storage

7.1 Precautions for safe handling

A - Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks.

Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6).

Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B - Technical recommendations for the prevention of fires and explosions

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

C - Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D - Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities

A - Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 6 Months

B - General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food.

For additional information see subsection 10.5

7.3 Specific end use(s)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8

Exposure controls/personal protection

8.1 Control parameters

Substances whose occupational exposure limits have to be monitored in the workplace

Identification	Environmental limits	
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	IOELV (8h)	1 mg/m ³
	IOELV (STEL)	4mg/m ³

Nuisance dust: Inhalable dust 10mg/m³// respirable dust 4 mg/m³

DNEL (workers)

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	4 mg/m ³	Non-applicable	1 mg/m ³

DNEL (general population)

		Short exposure		Long exposure	
Identification		Systemic	Local	Systemic	Local
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	4 mg/m ³	Non-applicable	1 mg/m ³

PNEC

Identificação				
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	STP	3 mg/L	Fresh water	0,49 mg/L
	Soil	1080 mg/kg	Marine water	0,32 mg/L
	Intermittent	0,49 mg/L	Sediment (fresh water)	Non-applicable
	Oral	Non-applicable	Sediment (marine water)	Non-applicable



8.2 Exposure controls

General security and hygiene measures in the work place

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

Respiratory protection



Pictogram	PPE	Labelling	CEN Standard	Remarks
 Compulsory use of face mask	Filter mask for particles	 CAT III	EN 149:2001+A1:2009	Replace when an increase in resistance to breathing is observed.

Specific protection for the hands





Pictogram	PPE	Labelling	CEN Standard	Remarks
 <p>Mandatory hand protection</p>	Protective gloves against minor risks	 CAT I		Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2003+A1:2009 and EN ISO 374-1:2016

As the product is a mixture of several substances, the resistance of the glove material can not be predicted in advance with total reliability and has therefore to be checked prior to the application.



Ocular and facial protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 <p>Mandatory face protection</p>	Panoramic glasses against splash/projections	 CAT II	EN 166:2001 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
 <p>Mandatory work clothing</p>	Work clothing	 CAT I		Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/ industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013; EN 464:1994
 <p>Mandatory work shoes</p>	Anti-slip work shoes	 CAT II	EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/ industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

Volatile organic compounds

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply): 0 % weight

V.O.C. density at 20 °C: 0 kg/m³ (0 g/L)

Average carbon number: Non-applicable

Average molecular weight: Non-applicable

9

Physical and chemical properties:

9.1 Information on basic physical and chemical properties

Appearance

Physical state at 20 °C

Solid

Colour

White

Odour

Odourless

Odour threshold

Non-applicable*

Volatility

Boiling point at atmospheric pressure

Non-applicable*

Vapour pressure at 20 °C

Non-applicable*

Vapour pressure at 50 °C

Non-applicable*

Evaporation rate at 20 °C

Non-applicable*

Product description

Density at 20 °C

~1152,8 kg/m³

Relative density at 20 °C

>1,153

Dynamic viscosity at 20 °C

Non-applicable*

Kinematic viscosity at 20 °C

Non-applicable*

Kinematic viscosity at 40 °C

Non-applicable*

Concentration

Non-applicable*

pH

≈ 10 - 12

Vapour density at 20 °C: Non-applicable*

Non-applicable*

Partition coefficient n-octanol/water 20 °C

Non-applicable*

Solubility in water at 20 °C

Non-applicable*

Solubility properties

Non-applicable*

Decomposition temperature	Non-applicable*
Melting point/freezing point	Non-applicable*
Explosive properties	Non-applicable*
Oxidising properties	Non-applicable*

Flammability

Flash Point	Non-applicable*
Flammability (solid, gas)	Non-applicable*
Autoignition temperature	Non-applicable*
Lower flammability limit	Non-applicable*
Upper flammability limit	Non-applicable*
Explosive:	
Lower explosive limit	Non-applicable*
Upper explosive limit	Non-applicable*

9.2 Other information

Surface tension at 20 °C	Non-applicable*
Refraction index	Non-applicable*

*Not relevant due to the nature of the product, not providing information property of its hazards.

10

Stability and reactivity

10.1 Reactivity

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

10.2 Chemical stability

Chemically stable under the conditions of storage, handling and use.

10.3 Possibility of hazardous reactions

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid

Applicable for handling and storage at room temperature

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Avoid alkalis or strong bases

Toxicological information

11.1 Information on toxicological effects

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure

Ingestion (acute effect)

Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3. Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as dangerous for this effect. For more information see section 3.

Inhalation (acute effect)

Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3. Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

Contact with the skin and the eyes (acute effect)

Contact with the skin: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for skin contact. For more information see section 3. Contact with the eyes: Produces serious eye damage after contact.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction)

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

IARC: Non-applicable

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Sensitizing effects

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.

Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific target organ toxicity (STOT) - single exposure

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

Specific target organ toxicity (STOT) - repeated exposure

Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Aspiration hazard

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information

Non-applicable

Specific toxicology information on the substances

Identification	Acute toxicity		Genus
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	LD50 oral	7340 mg/kg	Rat
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation	>5 mg/L (4h)	

Acute toxicology estimate (ATE mix)

ATE mix		Ingredient(s) of unknown toxicity
Oral	>2000 mg/kg (Calculation method)	Non-applicable
Dermal	>2000 mg/kg (Calculation method)	Non-applicable
Inhalation	>5 mg/L (4h) (Calculation method)	Non-applicable

12

Ecological information

12.1 Toxicity

Identification	Acute toxicity		Species	Genus
Calcium dihydroxide CAS: 1305-62-0 EC: 215-137-3	LC50	50.6 mg/L (96h)	Oncorhynchus mykiss	Fish
	EC50	49.1 mg/L (48h)	Daphnia magna	Crustacean
	EC50	184.57 mg/L (72h)	Pseudokirchneriella subcapitata	Algae

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects

Not described

13

Disposal considerations

13.1 Waste treatment methods

Code	Description	Waste class (regulation (EU) No 1357/2014)
08 04 10	Waste adhesives and sealants other than those mentioned in 08 04 09	Non dangerous

Type of waste (Regulation (EU) No 1357/2014)

Non-applicable

Waste management (disposal and evaluation)

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex

2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

Regulations related to waste management

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

14

Transport information

Transport of dangerous goods by land

With regard to ADR 2019 and RID 2019

14.1 UN number

ADR/RID Non-applicable

ADN Non-applicable

IMDG Non-applicable

IATA Non-applicable

14.2 UN proper shipping name

ADR/RID Non-applicable

ADN Non-applicable

IMDG Non-applicable

IATA Non-applicable

14.3 - Transport hazard class(es)

ADR/RID Non-applicable

ADN Non-applicable

IMDG Non-applicable

IATA Non-applicable

14.4 Packing group

ADR/RID Non-applicable

ADN Non-applicable

IMDG Non-applicable

IATA Non-applicable

14.5 Environmental hazards

ADR/RID No

ADN No

IMDG No

IATA No

14.6 Special precautions for user

Special regulations Non-applicable

Tunnel restriction code Non-applicable

Physico-Chemical properties see section 9

Limited quantities Non-applicable

14.7 Transport in bulk according to Annex II of MARPOL

Non-applicable

Transport of dangerous goods by sea

With regard to IMDG 39-18

14.1 UN number Non-applicable

14.2 UN proper shipping name Non-applicable

14.3 Transport hazard class(es) Non-applicable

14.4 Packing group Non-applicable

14.5 Environmental hazards No

14.6 Special precautions for user

Special regulations Non-applicable

EmS Codes

Physico-Chemical properties see section 9

Limited quantities Non-applicable

Segregation group Non-applicable

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

Non-applicable

Transport of dangerous goods by air

With regard to IATA/ICAO 2020

14.1 UN number Non-applicable

14.2 UN proper shipping name Non-applicable

14.3 Transport hazard class(es) Non-applicable

14.4 Packing group Non-applicable

14.5 Environmental hazards No

14.6 Special precautions for user

Physico-Chemical properties Ver epigrafe 9

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

Non-applicable

Regulatory information

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable
 Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable
 Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable
 Article 95, REGULATION (EU) No 528/2012: Calcium dihydroxide (Product-type 2, 3)
 REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products:
 Non-applicable

Seveso III

Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc...)

Non-applicable

Specific provisions in terms of protecting people or the environment

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation

The product could be affected by sectorial legislation.

15.2 Chemical safety assessment

The supplier has not carried out evaluation of chemical safety.

Other information

16.1 Legislation related to safety data sheets

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830)

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks

Non-applicable

Texts of the legislative phrases mentioned in section 2

H318: Causes serious eye damage

Texts of the legislative phrases mentioned in section 3

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

CLP Regulation (EC) No 1272/2008

Eye Dam. 1: H318 - Causes serious eye damage

Skin Irrit. 2: H315 - Causes skin irritation

STOT SE 3: H335 - May cause respiratory irritation

Classification procedure

Eye Dam. 1: Calculation method

Advice related to training

Minimal training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

16.2 Abbreviations and acronyms

ADR European agreement concerning the international carriage of dangerous goods by road

CAS Chemical Abstracts Service

IATA International Air Transport Association

ICAO International Civil Aviation Organisation

CLP Classification, Labelling and Packaging

COD Chemical Oxygen Demand

BCF Bioconcentration factor

LC50 Lethal concentration, 50 percent

(Concentração letal, 50%)

LD50 Lethal dose, 50 percent (Dose letal, 50%)

DNEL Derived No Effect Level

EC50 Effective Concentration, 50 percent

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

GHS Globally Harmonised System of Classification and Labelling of Chemicals

IBS-Code International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk.

IC50 Inhibition concentration, 50 percent

IMDG International Maritime Code for

Dangerous Goods

K_{oc} Partition coefficient of organic carbon

LC50 Lethal concentration, 50 percent

LD50 Lethal dose, 50 percent

Log POW Octanol-water partition coefficient

MARPOL International Convention for the

Prevention of Marine Pollution from Ships

PBT Persistent, Bioaccumulative and Toxic Substance

PNEC Predicted No Effect Concentration

REACH Registration, Evaluation, Authorisation

and Restriction of Chemicals

TLV®/TWA Threshold limit value

– time-weighted average

TLV®/STEL Threshold limit value

– short-time exposure limit

COV Volatile Organic Compound

mPmB Very persistent and very bioaccumulative



TRIA
Serviços, Materiais
e Equipamentos, SA.

Parque Ind. Manuel
Lourenço Ferreira - Lt. 43
3450-232 Mortágua -
Portugal

+351 231 927 480
geral@tria.pt