

SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Revision date 06/30/2023

Revision Number 1

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

1.1. Product identifier

Safety data sheet number 00131
Product Name FLAMEX MS320
Pure substance/mixture Mixture

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

Recommended use Fire rated joint sealant
Uses advised against Consumer use

1.3. Details of the supplier of the safety data sheet

Supplier
Fosroc International Limited
Drayton Manor Business Park
Coleshill Road
Tamworth
Staffordshire
B78 3XN
England
Tel. +44 (0) 1827 262222
Fax. +44 (0) 1827 262444

For further information, please contact

E-mail address enquiryuk@fosroc.com

1.4. Emergency telephone number

Emergency Telephone +44 (0) 1827 265 279 (Monday to Sunday, 24 hours a day)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Chronic aquatic toxicity	Category 2 - (H411)
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2.2. Label elements

**Hazard statements**

H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

P273 - Avoid release to the environment

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB according to applicable EU criteria. Causes mild skin irritation.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
CALCIUM CARBONATE (STEARATE COATED) 471-34-1	25 - <50%	207-439-9	-	-	-	-	-
DI-ISO-DECYL PHTHALATE 68515-49-1	10 - <25%	271-091-4	-	-	-	-	-
HYDROCARBONS, C9, aromatics 64742-95-6	1 - <2.5%	918-668-5	-	Asp. Tox. 1 (H304) STOT SE 3 (H335, H336) Chr. aquatic 2 (H411) Flam. liquid 3 (H226)	-	-	-
Trimethoxy(2-methylpropyl)silane 18395-30-7	1 - <2.5%	242-272-5	-	Acute Tox. 4 (H302) Acute Tox. 4 (H332) Eye Irrit. 2 (H319) Flam. Liq. 3 (H226) Skin Irrit. 2 (H315) STOT SE 3 (H335)	-	-	-
Dioctyltin Oxide 870-08-6	0.025 - <0.25%	212-791-1	-	Aquatic Chronic 3 (H412) Repr. 2 (H361fd) STOT RE 2 (H373)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth.

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

Symptoms	Prolonged contact may cause redness and irritation.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	No information available.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon monoxide. Carbon dioxide (CO ₂). Nitrogen oxides (NO _x).

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

General hygiene considerations Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

7.3. Specific end use(s)

Specific use(s)

The identified uses for this product are detailed in Section 1.2.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	United Kingdom
CALCIUM CARBONATE (STEARATE COATED) 471-34-1	TWA: 10 mg/m ³ TWA: 4 mg/m ³ STEL: 30 mg/m ³ STEL: 12 mg/m ³
Diocetyl tin Oxide 870-08-6	TWA: 0.1 mg/m ³ STEL: 0.2 mg/m ³ Sk*

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
CALCIUM CARBONATE (STEARATE COATED) 471-34-1			6.36 mg/m ³ [5] [6]
DI-ISO-DECYL PHTHALATE 68515-49-1		41.67 mg/kg bw/day [4] [6]	5.29 mg/m ³ [4] [6]
HYDROCARBONS, C9, aromatics 64742-95-6			1286.4 mg/m ³ [4] [7] 837.5 mg/m ³ [5] [6] 1066.67 mg/m ³ [5] [7]

- [4] Systemic health effects.
- [5] Local health effects.
- [6] Long term.
- [7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
CALCIUM CARBONATE (STEARATE COATED) 471-34-1	6.1 mg/kg bw/day [4] [6] 6.1 mg/kg bw/day [4] [7]		1.06 mg/m ³ [5] [6]
DI-ISO-DECYL PHTHALATE 68515-49-1	0.75 mg/kg bw/day [4] [6]		1.3 mg/m ³ [4] [6]
HYDROCARBONS, C9, aromatics 64742-95-6			1152 mg/m ³ [4] [7] 178.57 mg/m ³ [5] [6] 640 mg/m ³ [5] [7]
Diocetyl tin Oxide 870-08-6	2 µg/kg bw/day [4] [6]		

- [4] Systemic health effects.
- [5] Local health effects.
- [6] Long term.
- [7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Trimethoxy(2-methylpropyl)silane 18395-30-7	0.82 mg/L	8.2 mg/L	0.082 mg/L		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
CALCIUM CARBONATE (STEARATE COATED) 471-34-1			100 mg/L		
Trimethoxy(2-methylpropyl)silane	3.2 mg/kg sediment dw	0.32 mg/kg sediment dw	100 mg/L	0.16 mg/kg soil dw	

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
18395-30-7					

8.2. Exposure controls

Engineering controls No information available.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection To protect hands from chemicals, gloves must comply with European standard EN374. Barrier cream applied prior to exposure to material facilitates subsequent skin cleansing, but does not prevent skin penetration. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Wear suitable gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)	Nitrile rubber	0.4 mm	

Skin and body protection Wear suitable protective clothing.

Respiratory protection Respiratory protection is usually not required. Use appropriate protection if exposure limits are exceeded.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Paste
Color Various colours
Odor Slight.
Odor threshold Not determined

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	No data available	Not determined
Initial boiling point and boiling range	No data available	Not applicable
Flammability		Not determined
Flammability Limit in Air		Not determined
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Flash point	> 100 °C	CC (closed cup)
Autoignition temperature	No data available	Not determined
Decomposition temperature		Not applicable
pH	No data available	Not applicable
pH (as aqueous solution)	No data available	None known
Kinematic viscosity		Not determined
Dynamic viscosity		Not determined.
Water solubility	Insoluble in water	None known
Solubility(ies)	Immiscible in water	None known

Partition coefficient		Not applicable
Vapor pressure	< 0.001kPa	@ 20 °C
Relative density	1.42	@ 20 °C
Bulk density		
Not determined		Relative vapor density No data available
Not determined		Particle characteristics
		Particle Size No information available.
		Particle Size No information available.
		Distribution
Explosive properties	Not considered to be explosive.	
Oxidizing properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidising.	

9.2. Other information No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity There is no known hazardous reactivity associated with the product when used as recommended.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Hazardous polymerization None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances:
 Carbon oxides. Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation Based on available data, the classification criteria are not met.

- Eye contact** Based on available data, the classification criteria are not met.
- Skin contact** Specific test data for the substance or mixture is not available. Causes mild skin irritation.
- Ingestion** Based on available data, the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Prolonged contact may cause redness and irritation.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

- ATEmix (oral)** 19,327.50 mg/kg
- ATEmix (dermal)** 70,829.10 mg/kg
- ATEmix (inhalation-gas)** 257,142.90 ppm
- ATEmix (inhalation-dust/mist)** 85.70 mg/l
- ATEmix (inhalation-vapor)** 628.60 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
CALCIUM CARBONATE (STEARATE COATED)	= 6450 mg/kg (Rat)	> 2000 mg/kg (Rat)	> 3 mg/L (Rat) 4 h
DI-ISO-DECYL PHTHALATE	> 60000 mg/kg (Rat)	= 16000 mg/kg (Rabbit)	> 0.13 mg/L (Rat) 6 h
HYDROCARBONS, C9, aromatics	= 8400 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	= 3400 ppm (Rat) 4 h
Trimethoxy(2-methylpropyl)silane	-	-	> 1525 ppm (Rat) 4 h
Diocetyl tin Oxide	-	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

- Skin corrosion/irritation** Classification based on data available for ingredients. Causes mild skin irritation.
- Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.
- Respiratory or skin sensitization** Based on available data, the classification criteria are not met.
- Germ cell mutagenicity** Based on available data, the classification criteria are not met.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as mutagenic.

Chemical name	United Kingdom
HYDROCARBONS, C9, aromatics	Muta. 1B

Carcinogenicity Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	United Kingdom
HYDROCARBONS, C9, aromatics	Carc. 1B

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT - single exposure Based on available data, the classification criteria are not met.

STOT - repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
DI-ISO-DECYL PHTHALATE	EC50: >1.3mg/L (96h, Pseudokirchneriella subcapitata)	LC50: >0.66mg/L (96h, Pimephales promelas) LC50: >1mg/L (96h, Pimephales promelas) LC50: >1mg/L (96h, Oncorhynchus mykiss) LC50: >0.62mg/L (96h, Oncorhynchus mykiss) LC50: >0.55mg/L (96h, Lepomis macrochirus)	-	EC50: >0.18mg/L (48h, Daphnia magna)
HYDROCARBONS, C9, aromatics	-	LC50: =9.22mg/L (96h, Oncorhynchus mykiss)	-	EC50: =6.14mg/L (48h, Daphnia magna)
Diocetyl tin Oxide	-	LC50: >0.09mg/L (96h, Danio rerio)	-	-

12.2. Persistence and degradability

Persistence and degradability The product is not expected to be biodegradable.

12.3. Bioaccumulative potential

Bioaccumulation Not determined.

Chemical name	Partition coefficient
DI-ISO-DECYL PHTHALATE	8.8

12.4. Mobility in soil

Mobility in soil Insoluble in water. Not considered mobile.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
CALCIUM CARBONATE (STEARATE COATED)	The substance is not PBT / vPvB PBT assessment does not apply
DI-ISO-DECYL PHTHALATE	The substance is not PBT / vPvB

HYDROCARBONS, C9, aromatics	The substance is not PBT / vPvB
Trimethoxy(2-methylpropyl)silane	The substance is not PBT / vPvB
Diocetyl tin Oxide	The substance is not PBT / vPvB

12.6. Other adverse effects

Other adverse effects None known.

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Note that fully cured material is not considered as hazardous waste. Do not empty into drains, sewers or water courses. Dispose of waste to a licensed landfill in accordance with the requirements of the local Waste Disposal Authority.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user
Special Provisions None

IMDG

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user
Special Provisions None

14.7 Maritime transport in bulk according to IMO instruments No information available.

RID

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user
Special Provisions None

ADR

14.1 UN number or ID number Not regulated

14.2 UN proper shipping name Not regulated

14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated

14.5 Environmental hazards Not applicable

14.6 Special precautions for user

Special Provisions None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Authorizations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
DI-ISO-DECYL PHTHALATE - 68515-49-1	Use restricted. See item 52[b].	-
HYDROCARBONS, C9, aromatics - 64742-95-6	Use restricted. See item 28. Use restricted. See item 29. Restricted Carcinogen 1B Restricted Mutagen 1B	-
Diocetyl tin Oxide - 870-08-6	Use restricted. See item 20.	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

This product contains one or more substances pursuant to GB Prior Informed Consent (PIC) Regulations (as amended)

Chemical name	Export Notification requirements
Diocetyl tin Oxide - 870-08-6	I.1

Dangerous substance category per COMAH Regulations 2015 (as amended)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Named dangerous substances per COMAH Regulations 2015 (as amended)

Chemical name	Lower-tier requirements (tons)	Upper-tier requirements (tons)
HYDROCARBONS, C9, aromatics - 64742-95-6	-	25000

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

15.2. Chemical safety assessment**Chemical Safety Report**

No chemical safety assessment has been carried out for this product.

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet**

Full text of H-Statements referred to under section 3

- H226 - Flammable liquid and vapor
- H302 - Harmful if swallowed
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H332 - Harmful if inhaled
- H335 - May cause respiratory irritation
- H336 - May cause drowsiness or dizziness
- H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child
- H373 - May cause damage to organs through prolonged or repeated exposure
- H412 - Harmful to aquatic life with long lasting effects

Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitizers		

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
- European Chemicals Agency (ECHA) (ECHA_API)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGL(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Revision date 06/30/2023
Reason for revision This is the first issue.
Restrictions on use For professional use only

**This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work**

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet