

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

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

1.1. Product identifier

Product form : Mixture
Product name : BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Hydraulic and automotive area

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Bundesanstalt für Materialforschung und -prüfung (BAM)
Unter den Eichen 87
12205 Berlin – Germany
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crm-elastomer@bam.de - <http://www.webshop.bam.de/>

Safety Data Sheet: DLAC Dienstleistungsagentur Chemie GmbH, E-mail: sds@dlac-gmbh.de

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
Germany	Giftnotruf der Charité Universitätsmedizin Berlin	Oranienburger Straße 285 13437 Berlin	+49 30 30686700 (German, English) only in Germany; in all other cases use the information below

Information on national poison control centres within the EU can be found under the member states information on their national helpdesks:

<http://echa.europa.eu/de/support/helpdesks/national-helpdesks/list-of-national-helpdesks>

Global information on poison centres can be found at the WHO homepage: http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Serious eye damage/eye irritation, Category 1 H318
Reproductive toxicity, Category 1B H360
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H-phrases: see section 16

Adverse physicochemical, human health and environmental effects

Causes serious eye damage. May damage fertility or the unborn child. Harmful to aquatic life with long lasting effects.

2.2. Label elements

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

Not required, mixture containing elastomer which does not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment. Exception to the labelling requirement according to Annex I, 1.3.4.1.

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]
Carbon black	(CAS No) 1333-86-4 (EC No) 215-609-9	10 - 30	Not classified
Magnesium oxide	(CAS No) 1309-48-4 (EC No) 215-171-9	1 - 10	Not classified

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No 1272/2008 [CLP]
Calcium dihydroxide	(CAS No) 1305-62-0 (EC No) 215-137-3	1 - < 3	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]diphenol	(CAS No) 1478-61-1 (EC No) 216-036-7	< 1.5	Eye Dam. 1, H318 Repr. 1B, H360 STOT RE 2, H373 Aquatic Chronic 1, H410
1-chloro-N,N-diethyl-1,1-diphenyl-1-(phenylmethyl) phosphoramine	(CAS No) 82857-68-9 (EC No) 411-370-1 (EC Index No) 015-174-00-3	< 0.5	Acute Tox. 3 (Oral), H301 Eye Dam. 1, H318 Aquatic Chronic 2, H411

Full text of H-phrases: see section 16

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 to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
- First-aid measures after ingestion : Rinse mouth. Give 2-3 glasses of water to drink.

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

- Symptoms/injuries : May damage fertility or the unborn child.
- Symptoms/injuries after eye contact : Causes serious eye damage.

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 : Foam. Extinguishing powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment.
- 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 : Avoid contact with skin and eyes. Avoid breathing dust.

6.1.1. For non-emergency personnel

- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- 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

- Methods for cleaning up : On land, sweep or shovel into suitable containers. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Provide adequate ventilation. Avoid breathing dust. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.
- Hygiene measures : When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in original container. Store in dry, cool, well-ventilated area. Store in a dark area. Keep container closed when not in use.
- Incompatible materials : Keep out of direct sunlight. Keep away from any flames or sparking source.
- Prohibitions on mixed storage : Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Magnesium oxide (1309-48-4)		
Ireland	Local name	Magnesium oxide
Ireland	OEL (8 hours ref) (mg/m ³)	4 mg/m ³ respirable dust 5 mg/m ³ fume 10 mg/m ³ total inhalable dust
Ireland	OEL (15 min ref) (mg/m ³)	10 mg/m ³ fume
United Kingdom	Local name	Magnesium oxide (as Mg)
United Kingdom	WEL TWA (mg/m ³)	4 mg/m ³ respirable dust 10 mg/m ³ inhalable dust fume

Calcium dihydroxide (1305-62-0)		
EU	Local name	Calcium dihydroxide
EU	IOELV TWA (mg/m ³)	1 mg/m ³ Respirable fraction
EU	IOELV STEL (mg/m ³)	4 mg/m ³ Respirable fraction
EU	Source	Commission Directive (EU) 2017/164
Ireland	Local name	Calcium hydroxide
Ireland	OEL (8 hours ref) (mg/m ³)	1 mg/m ³ (R)
Ireland	OEL (15 min ref) (mg/m ³)	4 mg/m ³ (R)
Ireland	Notes (IE)	IOELV
Malta	Local name	Calcium dihydroxide
Malta	OEL TWA (mg/m ³)	1 mg/m ³ Respirable fraction
Malta	OEL STEL (mg/m ³)	4 mg/m ³ Respirable fraction
United Kingdom	Local name	Calcium hydroxide
United Kingdom	WEL TWA (mg/m ³)	5 mg/m ³
United Kingdom	OEL TWA (mg/m ³)	1 mg/m ³ Respirable fraction
United Kingdom	OEL STEL (mg/m ³)	4 mg/m ³ Respirable fraction

Carbon black (1333-86-4)		
Ireland	Local name	Carbon black
Ireland	OEL (8 hours ref) (mg/m ³)	3 mg/m ³ (I)
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m ³)	3.5 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	7 mg/m ³

Exposure limit values for the other components

Hydrogen fluoride (7664-39-3)		
EU	Local name	Hydrogen fluoride
EU	IOELV TWA (mg/m ³)	1.5 mg/m ³
EU	IOELV TWA (ppm)	1.8 ppm
EU	IOELV STEL (mg/m ³)	2.5 mg/m ³
EU	IOELV STEL (ppm)	3 ppm
EU	Source	Commission Directive 2000/39/EC
Ireland	Local name	Hydrogen fluoride (as F)
Ireland	OEL (8 hours ref) (mg/m ³)	1.5 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	1.8 ppm

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

Hydrogen fluoride (7664-39-3)		
Ireland	OEL (15 min ref) (mg/m ³)	2.5 mg/m ³
Ireland	OEL (15 min ref) (ppm)	3 ppm
Ireland	Notes (IE)	Sk, IOELV
Malta	Local name	Hydrogenfluoride
Malta	OEL TWA (mg/m ³)	1.5 mg/m ³
Malta	OEL TWA (ppm)	1.8 ppm
Malta	OEL STEL (mg/m ³)	2.5 mg/m ³
Malta	OEL STEL (ppm)	3 ppm
United Kingdom	Local name	Hydrogen fluoride (as F)
United Kingdom	WEL TWA (mg/m ³)	1.5 mg/m ³
United Kingdom	WEL TWA (ppm)	1.8 ppm
United Kingdom	WEL STEL (mg/m ³)	2.5 mg/m ³
United Kingdom	WEL STEL (ppm)	3 ppm

Carbonyl difluoride (353-50-4)		
Ireland	Local name	Carbonyl fluoride
Ireland	OEL (8 hours ref) (mg/m ³)	5.4 mg/m ³
Ireland	OEL (8 hours ref) (ppm)	2 ppm
Ireland	OEL (15 min ref) (mg/m ³)	13 mg/m ³
Ireland	OEL (15 min ref) (ppm)	5 ppm

8.2. Exposure controls

Appropriate engineering controls	: Provide local exhaust or general room ventilation.
Hand protection	: Wear suitable gloves. Chemical resistant PVC gloves (to European standard EN 374 or equivalent). Latex. Nitrile rubber. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection	: Chemical goggles or safety glasses (EN 166).
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Dust/aerosol mask with filter type P1.
Environmental exposure controls	: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Black
Odour	: Odourless
Melting point/freezing point	: No data available
Boiling point or initial boiling point and boiling range	: No data available
Flammability	: Non flammable
Lower and upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
pH	: No data available
Kinematic viscosity	: Not applicable
Solubility	: No data available
Partition coefficient n-octanol/water (log value)	: Not applicable
Vapour pressure	: No data available
Density and/or relative density	: 1.82 – 1.88 g/cm ³ (ISO 2781, ISO 6072) 1.83 – 1.87 g/cm ³ (ISO 2781, ISO 13226)
Relative vapour density	: Not applicable
Particle characteristics	: No data available

9.2. Other information

Hardness	: 70 ± 3 IRHD (ISO 48-4)
Tensile strength	: 12 MPa min. (ISO 37, ISO 6072) 12 – 18 MPa (ISO 37, ISO 13226)
Elongation at break	: 250 % min. (ISO 37, ISO 6072) 250 – 330 MPa (ISO 37, ISO 13226)

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under use and storage conditions as recommended in section 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Extremely high or low temperatures.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

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

Acute toxicity : Not classified
Based on available data, the classification criteria are not met

Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
Magnesium oxide (1309-48-4)	
LD50 oral rat	> 5000 mg/kg
Calcium dihydroxide (1305-62-0)	
LD50 oral rat	> 2000 mg/kg (OECD 425)
LD50 dermal rabbit	> 2500 mg/kg (OECD 402)

Skin corrosion/irritation : Not classified
Based on available data, the classification criteria are not met

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : Not classified
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : May damage fertility or the unborn child.

Specific target organ toxicity (single exposure) : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Carbon black (1333-86-4)	
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	1.1 mg/m ³ /6h

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

11.2. Information on other hazards

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

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity : Not classified

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Carbon black (1333-86-4)	
LC50 fishes	> 1000 mg/l 96 h, Danio rerio (OECD 203)
EC50 daphnia	> 5600 mg/l 24 h, Daphnia magna (OECD 202)
ErC50 algae	> 10000 mg/l 72 h, Scenedesmus subspicatus (OECD 201)
NOEC algae	> 10000 mg/l 72 h, Scenedesmus subspicatus (OECD 201)

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

Calcium dihydroxide (1305-62-0)	
LC50 fishes	50.6 mg/l 96 h, Oncorhynchus mykiss (OECD 203)
EC50 daphnia	49.1 mg/l 48 h, Daphnia magna (OECD 202)
ErC50 algae	184.57 mg/l 72 h, Pseudokirchneriella subcapitata (OECD 201)
NOEC crustacea	32 mg/l 14 d, Crangon septemspinosa

12.2. Persistence and degradability

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2	
Persistence and degradability	Not established.

Calcium dihydroxide (1305-62-0)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2	
Bioaccumulative potential	Not established.

Calcium dihydroxide (1305-62-0)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	: Do not dispose of with domestic waste. Do not empty into drains. This material and its container must be disposed of in a safe way.
European List of Waste (LoW) code	: 07 02 13 - waste plastic

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available.

14.6. Special precautions for user

No additional information available

14.7. Maritime transport in bulk according to IMO instruments

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 substance on the REACH candidate list

Contains no REACH Annex XIV substances

BAM-E014 Elastomer ISO 13226 SRE-FKM/2X / ISO 6072 FKM 2

Safety Data Sheet

according to Regulation (EU) 2020/878

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Changes compared to the previous version : Section 1.4.
Section 2.2.

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC50	The effective concentration of substance that causes 50% of the maximum response (Median Effective Concentration)
IATA	International Air Transport Association
IMDG	"International Maritime Dangerous Goods Code" for the transport of dangerous goods by sea
LC50	Lethal Concentration to 50 % of a test population (Median Lethal Concentration)
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC/L	No Observed Adverse Effect Concentration/Level
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance
PNEC	Predicted No-Effect Concentration
REACH	Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
STP	Sewage Treatment Plant
UFI	Unique Formula Identifier
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H301	Toxic if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H360	May damage fertility or the unborn child
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects

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.