

BAM-E011 Elastomer ISO 13226 SRE-HNBR/1X

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-E011 Elastomer ISO 13226 SRE-HNBR/1X

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 (vulcanized with peroxide)

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
T +49 (0) 30 8104-3230, -1749
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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]

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

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	20 - 40	Not classified
Calcium carbonate	(CAS No) 471-34-1 (EC No) 207-439-9	< 3	Not classified

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Magnesium oxide	(CAS No) 1309-48-4 (EC No) 215-171-9	< 2	Not classified
Zinc oxide	(CAS No) 1314-13-2 (EC No) 215-222-5 (EC index No) 030-013-00-7 (REACH-No) 01-2119463881-32-XXXX	< 2	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
[1,3(or 1,4)-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide	(CAS No) 25155-25-3 (EC No) 246-678-3	< 2	Org. Perox. D, H242 Aquatic Chronic 4, H413

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. Wash contaminated clothing before reuse.
- 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.
- 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 : Not expected to present a significant hazard under anticipated conditions of normal use.

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

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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Provide adequate ventilation.
- 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.

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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

Zinc oxide (1314-13-2)		
Ireland	Local name	Zinc oxide, fume
Ireland	OEL (8 hours ref) (mg/m ³)	2 (R) mg/m ³
Ireland	OEL (15 min ref) (mg/m ³)	10 mg/m ³
United Kingdom	Local name	Dust
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable) 4 mg/m ³ (respirable)

Carbon black (1333-86-4)		
Ireland	Local name	Carbon black
Ireland	OEL (8 hours ref) (mg/m ³)	3 (I) mg/m ³
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

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 carbonate (471-34-1)		
Ireland	Local name	Calcium carbonate
Ireland	OEL (8 hours ref) (mg/m ³)	10 mg/m ³ (total inhalable dust) 4 mg/m ³ (respirable dust)
United Kingdom	Local name	Calcium carbonate
United Kingdom	WEL TWA (mg/m ³)	10 mg/m ³ (inhalable dust) 4 mg/m ³ (respirable dust)

Calcium carbonate (471-34-1)		
DNEL/DMEL (Workers)		
Long-term - local effects, inhalation	6.36 mg/m ³	
DNEL/DMEL (General Population)		
Long-term - local effects, inhalation	1.06 mg/m ³	
Long-term - systemic effects, oral	6.1 mg/kg bodyweight/day	
Acute - systemic effects, oral	6.1 mg/kg bodyweight/day	
PNEC (STP)		
PNEC sewage treatment plant	100 mg/l	

Zinc oxide (1314-13-2)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, inhalation	5 mg/m ³	
Long-term - local effects, inhalation	0.5 mg/m ³	
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day	
DNEL/DMEL (General population)		
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2.5 mg/m ³	
Long-term - systemic effects, oral	0.83 mg/kg bodyweight/day	

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Zinc oxide (1314-13-2)	
PNEC (Water)	
PNEC aqua (freshwater)	0.0206 mg/l
PNEC aqua (marine water)	0.0061 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	117.8 mg/kg dwt
PNEC sediment (marine water)	56.5 mg/kg dwt
PNEC (Soil)	
PNEC soil	35.6 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	0.1 mg/l

[1,3(or 1,4)-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide (25155-25-3)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, inhalation	19.7 mg/m ³
Long-term - systemic effects, dermal	28 mg/kg bodyweight/day
DNEL/DMEL (General population)	
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	3.47 mg/m ³
Long-term - systemic effects, oral	1 mg/kg bodyweight/day
PNEC (Sediment)	
PNEC sediment (freshwater)	8.9 mg/kg dwt
PNEC sediment (marine water)	0.892 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	44.4 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

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 production: dust 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)	: No data available
Vapour pressure	: No data available
Density and/or relative density	: 1.16 - 1.20 g/cm ³ (ISO 2781)
Relative vapour density	: Not applicable
Particle characteristics	: No data available

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9.2. Other information

Explosive properties	: No data available
Oxidising properties	: No data available
Hardness	: 72 - 77 Shore A (ISO 48-4) 72 - 77 IRHD (ISO 48-2)
Tensile strength	: 24 - 29 MPa (ISO 37)
Elongation at break	: 250 - 310 % (ISO 37)

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
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Zinc oxide (1314-13-2)

LD50 oral rat	> 2000 mg/kg (OECD 401)
LD50 dermal rat	> 2000 mg/kg (OECD 402)
LC50 inhalation rat (mg/l)	> 5.7 mg/l/4h (OECD 403)

Magnesium oxide (1309-48-4)

LD50 oral rat	> 5000 mg/kg
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[1,3(or 1,4)-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide (25155-25-3)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Not classified
	Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
	Based on available data, the classification criteria are not met
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	: Not classified
	Based on available data, the classification criteria are not met
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
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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 fish	> 1000 mg/l 96 h, Brachydanio 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)

Zinc oxide (1314-13-2)

LC50 fish	0.5 mg/l 96 h, Pimephales promelas (Schubauer-Berrigan, 1993)
EC50 daphnia	0.413 mg/l pH < 7; Zn ⁺⁺ ; 48 h, Ceriodaphnia dubia (Hyne et al., 2005)
ErC50 algae	0.136 mg/l pH > 7 - 8.5; Zn ⁺⁺ , 72 h, Selenastrum capricornutum (Van Ginneken, 1994)

[1,3(or 1,4)-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide (25155-25-3)

LC50 fish	750 mg/l 96 h, Pimephales promelas
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12.2. Persistence and degradability

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Persistence and degradability	May cause long-term adverse effects in the environment.
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[1,3(or 1,4)-phenylenebis(1-methylethylidene)]bis[tert-butyl] peroxide (25155-25-3)

Persistence and degradability	Not readily biodegradable.
Biodegradation	0 %, 28 d (OECD 301D)

12.3. Bioaccumulative potential

No additional information available

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

Proper Shipping Name (ADR) : Not applicable
Proper Shipping Name (IMDG) : Not applicable
Proper Shipping Name (IATA) : Not applicable

14.3. Transport hazard class(es)

ADR

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Transport hazard class(es) (ADR) : Not applicable

IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : 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

14.6.1. Overland transport

14.6.2. Transport by sea

14.6.3. Air transport

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

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.
Section 8.1.

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)
NOEC/L	No Observed Effect Concentration/Level
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic substance

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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
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Org. Perox. D	Organic Peroxides, Type D
H242	Heating may cause a fire
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H413	May cause long lasting harmful effects to aquatic life

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.