

Safety Data Sheet

Barrier E

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ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP)
& 2020/878

Date of issue: 24/11/2022
Date of First Issue: 07/09/2015
Version 3.0

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

1.1 Product identifier		
Product name	Barrier E	
Product code	Not applicable	
Unique Formula Identifier (UFI)	Not applicable	
Nanoform	The product does not contain nanoparticles.	
1.2 Relevant identified uses of the substance or mixture and uses advised against		
Identified Use(s)	Strain gauge installation	
Uses advised against	For professional users only.	
1.3 Details of the supplier of the safety data sheet		
Company Identification	VISHAY MEASUREMENTS GROUP GMBH Tatschenweg 1 74078 Heilbronn Deutschland	
Telephone	+49 (0) 7131 39099-0	
Fax	+49 (0) 7131 39099-229	
E-mail (competent person)	mm.de@vpgsensors.com	
1.4 Emergency telephone number		
National Poisons Information Service (United Kingdom)	+44 (0) 3448 920111	24 hr. emergency phone number Healthcare Professionals ONLY
NHS 24	111	Members of Public
Emergency Phone No.	(00-1) 703-527-3887	CHEMTREC (24 hours)
Languages spoken	All official European languages.	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture		
2.1.1 Regulation (EC) No. 1272/2008 (CLP)	Carc. 2; H351	
2.2 Label elements		
Product name	Barrier E	
Hazard Pictogram(s)		
Signal Word(s)	WARNING	
Contains:	Antimony trioxide	
Hazard Statement(s)	H351: Suspected of causing cancer.	
Precautionary Statement(s)	P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P308+P313: IF exposed or concerned: Get medical advice/attention. P405: Store locked up.	

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P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental information

None Known

2.3 Other hazards

Molten material can cause severe burns.
Handling of this material may generate a dust which can cause mechanical irritation of the eyes, skin nose and throat.

SECTION 3: Composition/information on ingredients

3.1 Substances - not applicable.

3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard classification
Antimony trioxide	0.5 -< 1	1309-64-4	215-175-0	Not yet assigned in the supply chain	Acute Tox. 4; H332 Acute Tox. 4; H302 Carc. 2; H351 Aquatic Chronic 3; H412 STOT RE 2; H373

Note: For full text of H phrases see section 16.

SECTION 4: First aid measures



4.1 Description of first aid measures Self-protection of the first aider

Inhalation

Use personal protective equipment as required. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Do not breathe dusts or mists. Avoid all contact. Avoid exposure during pregnancy.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. If exposed or concerned: Get medical attention/advice.

Skin contact

IF ON SKIN: Wash with plenty of water. Take off contaminated clothing. If irritation develops and persists, get medical attention.

Hot/molten product: In case of burns immediately cool affected skin as long as possible with cold water. Do not peel solidified product off the skin. Burns caused by molten material must be treated clinically.

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.

Ingestion

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2 Most important symptoms and effects, both acute and delayed

Suspected of causing cancer. Molten material can cause severe burns.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. IF exposed or concerned: Call a POISON CENTER/doctor.

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SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
Suitable extinguishing media As appropriate for surrounding fire. Extinguish preferably with foam, carbon dioxide or dry chemical.
Unsuitable extinguishing media Do not use water jet. Direct water jet may spread the fire.
- 5.2 Special hazards arising from the substance or mixture**
Combustion or thermal decomposition will evolve toxic and irritant vapours. Carbon monoxide, Carbon dioxide, cyanide and Oxides of nitrogen.
- 5.3 Advice for firefighters**
Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Avoid run off to waterways and sewers.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation Avoid breathing dust/mist. Avoid all contact. In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. See Section: 8.
- 6.2 Environmental precautions**
Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.
- 6.3 Methods and material for containment and cleaning up**
Ensure suitable personal protection during removal of spillages. Do not use cloths for mopping up. Flood with water to complete polymerisation and scrape off the floor. Cured material can be disposed of as non-hazardous waste.
- 6.4 Reference to other sections**
See Section: 8, 13

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Ensure adequate ventilation Avoid all contact. Avoid breathing dust/mist. Use personal protective equipment as required. See Section: 8. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.
- 7.2 Conditions for safe storage, including any incompatibilities**
Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Keep away from heat and direct sunlight.
storage temperature < 100°C
Storage life Stable under normal conditions
Incompatible materials Keep away from: Oxidizing agents
Storage class (TRGS 510) LGK 11
- 7.3 Specific end use(s)**
See Section: 1.2.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters**
- 8.1.1 Occupational exposure limits**
The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m³ (8hr TWA) total inhalable dust; 4 mg/m³ (8hr TWA) total respirable dust.

United Kingdom

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Kaolin, respirable dust	1332-58-7	-	2	-	-	-
Limestone total inhalable respirable	1317-65-3	- -	10 4	- -	- -	-
Polyvinyl chlorid inhalable dust respirable dust	9002-86-2	- -	10 4	- -	- -	-
Carbon Black	1333-86-4	-	3.5	-	7	-

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Antimony and compounds except stibine (as Sb)	-	-	0.5	-	-	-
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Source: UK WEL: Workplace Exposure Limit (UK HSE EH40)

Ireland

SUBSTANCE	CAS No.	Occupational Exposure Limit Value (8-hour reference period)		Occupational Exposure Limit Value (15-minute reference period)		Notes
		ppm	mg/m ³	ppm	mg/m ³	
Kaolin, respirable dust	1332-58-7	-	2	-	-	-
Calcium Carbonate total inhalable respirable	1317-65-3	-	10	-	-	-
		-	4	-	-	
Polyvinyl chlorid inhalable dust respirable dust	9002-86-2	-	10	-	-	-
		-	1(R)	-	-	
Carbon Black	1333-86-4	-	3 (I)	-	-	-
Antimony and compounds	7440-36-0	-	0.5	-	-	-

Source: 2021 Code of Practice for Safety, Health and Welfare at Work (Chemical Agents) Regulation (2001 – 2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001 – 2019); Health and Safety Authority

8.1.2 Biological Limit Value

Not established

8.1.3 PNECs and DNELs

Not established

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure adequate ventilation Or Use appropriate containment. Atmospheric levels should be controlled in compliance with the occupational exposure limit. Use non-sparking ventilation systems, approved explosion-proof equipment, and intrinsically safe electrical systems.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable. Avoid all contact. Avoid breathing dust/mist. Wash hands before breaks and after work. Keep work clothes separately. Contaminated clothing should be thoroughly cleaned. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye / face protection



Wear protective eye glasses for protection against liquid splashes. Wear eye protection with side protection (EN166).

Skin protection



Hand protection:

Wear impervious gloves (EN374). Gloves should be changed regularly to avoid permeation problems. Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: PVC / Nitrile rubber

Body protection:

Wear impervious protective clothing, including boots, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection

Use only in well-ventilated areas. In case of inadequate ventilation wear respiratory protection. A suitable mask with filter type A (EN141 or EN405) may be appropriate.

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Thermal hazards

not applicable

8.2.3 Environmental exposure controls

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	Black
Odour	Not established
Melting point and freezing point	Not established
Boiling point or initial boiling point and boiling range	Not established
Flammability	Not established
Lower and upper explosion limit or lower and upper flammability limit	not applicable - solid
Flash point	not applicable - solid
Auto-ignition temperature	not applicable - solid
Decomposition temperature	Not established
pH	Not established
Kinematic viscosity	not applicable - solid
Solubility	Not established
Partition coefficient: n-octanol/water (log value)	not applicable
Vapour pressure	Not established
Density and/or relative density	not applicable - solid
Relative vapour density	not applicable - solid
Particle characteristics	Not established

9.2 Other information

No information available.

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	Hazardous polymerisation will not occur. Reaction with hydrogen releases antimony hydride (stibine).
10.4 Conditions to avoid	Keep away from heat and direct sunlight.
10.5 Incompatible materials	Keep away from: Oxidizing agents
10.6 Hazardous decomposition products	May decompose in a fire giving off toxic fumes.

SECTION 11: Toxicological information

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

Acute toxicity

Ingestion

Mixture: Based upon the available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: estimated LD50 > 2000 mg/kg bw/day

Inhalation

Mixture: Based upon the available data, the classification criteria are not met.
Acute Toxicity Estimate Mixture Calculation: estimated LC50 > 20 mg/L. (dust/mist)

Skin contact

Mixture: Based upon the available data, the classification criteria are not met.

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		Acute Toxicity Estimate Mixture Calculation: estimated LD50 > 2000 mg/kg bw/day
Skin corrosion/irritation		Mixture: Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation		Mixture: Based upon the available data, the classification criteria are not met.
Respiratory or skin sensitisation		Mixture: Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity		Mixture: Based upon the available data, the classification criteria are not met.
Carcinogenicity		Mixture: Carc. 2; H351: Suspected of causing cancer.
	Antimony trioxide	Carc. 2; H351: Suspected of causing cancer.
		Harmonised Classification
Reproductive toxicity		Mixture: Based upon the available data, the classification criteria are not met.
STOT - single exposure		Mixture: Based upon the available data, the classification criteria are not met.
STOT - repeated exposure		Mixture: Based upon the available data, the classification criteria are not met.
Aspiration hazard		Mixture: Based upon the available data, the classification criteria are not met.
11.2 Information on other hazards		
11.2.1	Endocrine disrupting properties	This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.
11.2.2	Other information	Molten material can cause severe burns. Handling of this material may generate a dust which can cause mechanical irritation of the eyes, skin nose and throat.

SECTION 12: Ecological information

12.1 Toxicity		Mixture: Based upon the available data, the classification criteria are not met.
	Antimony trioxide	Aquatic Chronic - Category 3 Harmonised Classification Aquatic acute: LC50 (Fathead minnow) mg/l 14.4 (96 hour). (Unnamed, 1986) Aquatic chronic: Read across: NOEC (Fathead minnow (Pimephales promelas)) 4.5 mg/L (28 Day). (Unnamed, 1978).
12.2 Persistence and degradability		No data for the mixture as a whole.
	Antimony trioxide	Testing can be waived because the substance is an inorganic compound
12.3 Bioaccumulative potential		No data for the mixture as a whole.
	Antimony trioxide	Low bioaccumulative potential. Bioconcentration factor (BCF): 40
12.4 Mobility in soil		No data for the mixture as a whole.
	Antimony trioxide	No data available
12.5 Results of PBT and vPvB assessment		Not classified as PBT or vPvB.
12.6 Endocrine disrupting properties		This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.
12.7 Other adverse effects		None known

SECTION 13: Disposal considerations

13.1 Waste treatment methods		This material and its container must be disposed of as hazardous waste. Dispose of wastes in an approved waste disposal facility. EU Waste Codes: HP7
13.2 Additional information		Dispose of contents in accordance with local, state or national legislation.

SECTION 14: Transport information

Not classified according to the United Nations 'Recommendations on the Transport of Dangerous Goods'

	ADR/RID	ADN	IMDG	IATA/ICAO
14.1 UN number or ID number	Not classified	Not classified	Not classified	Not classified
14.2 UN proper shipping name	Not classified	Not classified	Not classified	Not classified
14.3 Transport hazard class(es)	Not classified	Not classified	Not classified	Not classified
14.4 Packing group	Not classified	Not classified	Not classified	Not classified
14.5 Environmental hazards	Not classified	Not classified	Not classified as a Marine Pollutant.	Not classified
14.6 Special precautions for user	See Section: 2			

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

SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	EU regulations	
	Use restriction according to REACH annex XVII, no.:	not applicable
	Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]	not applicable
	Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]	This substance/mixture does not contain any volatile organic compounds in the sense of Directive 2010/75/EU.
	Restrictions of occupation:	Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
	To follow:	Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
15.1.2	National regulations	
	Germany	
	Water hazard class (WGK)	non-hazardous to water (nwg)
15.2	Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.

SECTION 16: Other information

The following sections contain revisions or new statements: New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

References:

Existing Safety Data Sheet (SDS).

EU: Harmonised Classification(s) for Antimony trioxide (CAS No. 1309-64-4). Existing ECHA registration(s) for Antimony trioxide (CAS No. 1309-64-4)

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

Classification of the substance or mixture According to Regulation (EC) No. 1272/2008 (CLP)	Classification procedure
Carc. 2; H351	Threshold Calculation

Legend

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
BCF	Bioconcentration Factor
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EU	European Union
EC	European Community
ECHA	European Chemicals Agency
EN	European Standard
EC50	Effect concentration; 50 %
EL50	Effective loading rate; 50 %
GB	Great Britain
HSE	Health and Safety Executive

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IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
LC50	Lethal concentration at which 50% of the population is killed
LD50	Lethal dose at which 50% of the population is killed
LTEL	Long term exposure limit
NOAEC	No observed adverse effect concentration
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
TWA	Time Weighted Average
STEL	Short term exposure limit
vPvB	very Persistent and very Bioaccumulative
UK	United Kingdom
UN	United Nations
VOC	Volatile organic compounds

Hazard classification / Classification code:

Carc. 2; H351; Carcinogen Category 2

Hazard Statement(s)

H351: Suspected of causing cancer.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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