

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

PASSIVE PURPLE

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

1.1. Product identifier

Product name : Passive Purple
Registration number REACH : Not applicable (mixture) :
Product type REACH Mixture

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

1.2.1 Relevant identified uses

Airtight coating

1.2.2 Uses advised against

No uses advised against

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

INTELLIGENT MEMBRANES
 Clopton Farm, Lower Road
 Croyden, SG8 0EF
 +44 01223 208174

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):
 +44 01223 208174

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Supplemental information

EUH208 Contains: reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one[ECno.247-500-7]and2-methyl-4-isothiazolin-3-one[ECno.220-239-6](3:1).Mayproducean allergic reaction.
 EUH210 Safety data sheet available on request.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name CAS No REACH Registration No EC No	Conc. (C)	Classification according to CLP	Note	Remark
aluminium hydroxide 21645-51-2 01-2119529246-39 244-492-7	C<25 %		(2)	Constituent

(2) Substance with a Community workplace exposure limit

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Created by: Brandweerinformatiecentrum voor gevaarlijke stoffen vzw (BIG)
 Technische Schoolstraat 43 A, B-2440 Geel
<http://www.big.be>
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 Reason for revision: 2;3;8;11;12;15;16
 Revision number: 0100

Publication date: 2015-11-10
 Date of revision: 2016-02-01

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Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water. Soap may be used. Take victim to a doctor if irritation persists.

After eye contact:

Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Consult a doctor/medical service if you feel unwell.

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

4.2.1 Acute symptoms

After inhalation:

No effects known.

After skin contact:

No effects known.

After eye contact:

No effects known.

After ingestion:

No effects known.

4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Water spray. Polyvalent foam. ABC powder. Carbon dioxide.

5.1.2 Unsuitable extinguishing media:

No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Upon combustion: formation of CO and CO₂, metallic fumes and small quantities of hydrogen chloride.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2.

6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Protective clothing.

Suitable protective clothing _____

See heading 8.2.

6.2. Environmental precautions

Contain released substance, pump into suitable containers. Plug the leak, cut off the supply.

6.3. Methods and material for containment and cleaning up

Solid spill: cover with absorbent material. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

Reason for revision: 2;3;8;11;12;15;16

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SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Keep container tightly closed. Observe strict hygiene.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: 5 - 35 °C. Store in a cool area. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources.

7.2.3 Suitable packaging material:

Plastics.

7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

Belgium

Aluminium (métal et composés insolubles, fraction alvéolaire) Time-weighted average exposure limit 8 h	1 mg/m ³
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USA (TLV-ACGIH)

(R) Respirable fraction	Aluminium, insoluble compounds Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m ³ (R)
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b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

If applicable and available it will be listed below.

Aluminum & Compounds (as Al) NIOSH 7013

8.1.3 Applicable limit values when using the substance or mixture as intended	
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If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

aluminium hydroxide

	Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL Long-term systemic effects inhalation	10.76 mg/m ³			
Long-term local effects inhalation	10.76 mg/m ³			
DNEL/DMEL - General population				
aluminium hydroxide				

	Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL Long-term systemic effects oral	4.74 mg/kg bw/day			
PNEC				
aluminium hydroxide				

Compartments Value Remark

STP	20 mg/l			
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8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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8.2.2 Individual protection measures, such as personal protective equipment

Observe strict hygiene. Do not eat, drink or smoke during work.

a) Respiratory protection:

Wear gas mask with filter type A if conc. in air > exposure limit.

b) Hand protection:

Gloves.

c) Eye protection:

Safety glasses.

d) Skin protection:

Protective clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Paste
Odour	Odourless
Odour threshold	No data available
Colour	White to blue
Particle size	Not applicable (mixture)
Explosion limits	No data available
Flammability	Non-flammable
Log Kow	Not applicable (mixture)
Dynamic viscosity	10000 mPa.s ; 40 °C
Kinematic viscosity	No data available
Melting point	No data available
Boiling point	No data available
Flash point	No data available
Evaporation rate	No data available
Relative vapour density	No data available
Vapour pressure	No data available
Solubility	water ; miscible
Relative density	No data available
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	No chemical group associated with oxidising properties
pH	No data available

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1.Reactivity

Heating increases the fire hazard.

10.2.Chemical stability

No data available.

10.3.Possibility of hazardous reactions

No data available.

10.4.Conditions to avoid

Keep away from naked flames/heat. Keep container tightly closed.

10.5.Incompatible materials

No data available.

10.6.Hazardous decomposition products

Upon combustion: formation of CO and CO₂, metallic fumes and small quantities of hydrogen chloride.

SECTION 11: Toxicological information

Reason for revision: 2;3;8;11;12;15;16

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11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

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No (test) data on the mixture available
aluminium hydroxide

	Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Dermal	Oral LD50	OECD 423		> 2000 mg/kg bw		Rat (female)	Experimental value	
							Data waiving	
403	Inhalation (aerosol)	LC50	Equivalent to OECD	> 2.3 mg/l air	4 h	Rat (male/female)	Read-across	

Judgement is based on the relevant ingredients

Conclusion

Not classified for acute toxicity

Corrosion/irritation

Passive Purple

No (test) data on the mixture available
aluminium hydroxide

Route of exposure Result Method

	Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
		Eye Not irritating	OECD 405	1 h	24; 48; 72 hours	Rabbit	Experimental value	
		Skin Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

Judgement is based on the relevant ingredients

Conclusion

Not classified as irritating to the skin

Not classified as irritating to the eyes

Not classified as irritating to the respiratory system

Respiratory or skin sensitisation

Passive Purple

No (test) data on the mixture available
aluminium hydroxide

Route of exposure Result Method

	Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
	Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (male)	Experimental value	
Intratracheal instillation	Not sensitizing					Mouse (male)	Weight of evidence	

Judgement is based on the relevant ingredients

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

Passive Purple

No (test) data on the mixture available
aluminium hydroxide

Route of exposure Parameter Method

	Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
OECD 407	Oral (diet)	NOAEL	Equivalent to	302 mg/kg food		No effect	4 weeks (daily)	Rat (male)	Weight of evidence
OECD 412	Inhalation (aerosol)	NOAEC	Equivalent to	3 mg/m ³ air	Lungs	No effect	4 weeks (6h/day, 5 days/week)	Rat (male)	Read-across
OECD 412	Inhalation (aerosol)	LOAEC	Equivalent to	28 mg/m ³ air	Lungs	Overall effects	4 weeks (6h/day, 5 days/week)	Rat (male)	Read-across

Judgement is based on the relevant ingredients

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

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Passive Purple

No (test) data on the mixture available

aluminium hydroxide

Result	Method	Test substrate	Effect	Value determination
	Negative	OECD 476	Mouse (lymphoma L5178Y cells)	Experimental value

Mutagenicity (in vivo)

Passive Purple

No (test) data on the mixture available

aluminium hydroxide

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	OECD 474	24 h	Rat (male)	Bone marrow	Experimental value

Carcinogenicity

Passive Purple

No (test) data on the mixture available

aluminium hydroxide

exposure	Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Inhalation (dust)					86 weeks (6h/day, 5 days/week)	Rat (male/female)	No effect	Lungs	Read-across

Reproductive toxicity

Passive Purple

No (test) data on the mixture available

aluminium hydroxide

Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	Equivalent to OECD 414	266 mg/kg 10 day(s) bw/day	Rat	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 422	1000 mg/kg bw	4 weeks (daily)	Rat (male)	No effect	Male Read-across reproductive organ
	NOAEL (P)	OECD 422	1000 mg/kg bw - 8 weeks (daily)	5 weeks (daily)	Rat (female)	No effect	Female Read-across reproductive organ

Judgement is based on the relevant ingredients

Conclusion CMR

Not classified for carcinogenicity

Not classified for mutagenic or genotoxic toxicity

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

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No (test) data on the mixture available

Chronic effects from short and long-term exposure

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—ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

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No (test) data on the mixture available

aluminium hydroxide

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes LC50			> 10000 mg/l	96 h	Pisces			Literature study
Acute toxicity invertebrates EC50			> 10000 mg/l	48 h	Daphnia magna			Literature study

Judgement of the mixture is based on the relevant ingredients

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Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

No test data of component(s) available

12.3. Bioaccumulative potential

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Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

aluminium hydroxide

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

Conclusion

No test data of component(s) available

12.4. Mobility in soil

No (test) data on mobility of the components available

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

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Global warming potential (GWP)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

Can be considered as non-hazardous waste according to Regulation (EU) No 1357/2014. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Recycle/reuse. Remove waste in accordance with local and/or national regulations.

Any waste water from machinery on site will be sealed in products containers and returned to Intelligent Membranes for disposal.

13.1.3 Packaging/Container

Waste material code packaging (Directive 2008/98/EC).

15 01 02 (plastic packaging).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

Transport Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number

Class

Classification code

14.4. Packing group

Packing group

Labels

14.5. Environmental hazards

Environmentally hazardous substance mark no

14.6. Special precautions for user

Special provisions

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Limited quantities

Rail (RID)

14.1. UN number

Transport Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Hazard identification number

Class

Classification code

14.4. Packing group

Packing group

Labels

14.5. Environmental hazards

Environmentally hazardous substance mark no

14.6. Special precautions for user

Special provisions

Limited quantities

Inland waterways (ADN)

14.1. UN number

Transport Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class

Classification code

14.4. Packing group

Packing group

Labels

14.5. Environmental hazards

Environmentally hazardous substance mark no

14.6. Special precautions for user

Special provisions

Limited quantities

Sea (IMDG/IMSBC)

14.1. UN number

Transport Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class

14.4. Packing group

Packing group

Labels

14.5. Environmental hazards

Marine pollutant

Environmentally hazardous substance mark -

14.6. Special precautions for user

Special provisions

Limited quantities

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

Annex II of MARPOL 73/78

Air (ICAO-TI/IATA-DGR)

14.1. UN number

Transport Not subject

14.2. UN proper shipping name

14.3. Transport hazard class(es)

Class

14.4. Packing group

Packing group

Labels

14.5. Environmental hazards

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Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	
Passenger and cargo transport: limited quantities: maximum net quantity per packaging	

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
	No data available

VOC content Directive 2004/42/EC

Maximum value	EC limit value	Category	Subcategory	Notation
0 g/l 40 g/l		IIA	c: Exterior walls of mineral substrate	2004/42/IIA(c)(40)0

European drinking water standards (Directive 98/83/EC)

Passive Purple

Note	Reference	Parameter	Parametric value	
	Aluminium 200 µg/l			Listed in Annex I, Part C, of Directive 98/83/EC on the quality of water intended for human consumption.

National legislation The Netherlands

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Waste identification (the LWCA (the Netherlands): KGA category 03

Netherlands)

Waterbezwaarljkheid 11

National legislation Germany

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WGK 1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

aluminium hydroxide

Schwangerschaft Gruppe	D
Schwangerschaft Gruppe	D
MAK 8-Stunden-Mittelwert mg/m ³	Aluminium-, Aluminiumoxid-, Aluminiumhydroxidhaltige Ställube (alveolengällingige Fraktion); 1.5 mg/m ³ ; gemessen als alveolengängige Fraktion (vgl. Abschn. Vd) S. 191)
	Aluminium-, Aluminiumoxid-, Aluminiumhydroxidhaltige Ställube (einatembare Fraktion); 4 mg/m ³ ; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191)
TA-Luft	5.2.1

National legislation France

Passive Purple

No data available

National legislation Belgium

Passive Purple

No data available

Other relevant data

Passive Purple

No data available

aluminium hydroxide

TLV - Carcinogen	Aluminium, insoluble compounds; A4
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15.2. Chemical safety assessment

No chemical safety assessment is required.

SECTION 16: Other information

(*) = INTERNAL CLASSIFICATION BY BIG

PBT-substances = persistent, bioaccumulative and toxic substances

CLP (EU-GHS) Classification, labelling and packaging (Globally Harmonised System in Europe)

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption,

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storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.