SAFETY DATA SHEET

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

PASSIVE PURPLE INTERNAL BRUSH

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

1.1. Product identifier

Product name **Registration number REACH Product type REACH**

: PASSIVE PURPLE INTERNAL BRUSH : Not applicable (mixture) : 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 known

1.3. Details of the supplier of the safety data sheet

Intelligent Membranes Ltd. Clopton Farm, Lower Road Croydon, SG8 0EF, United Kingdom **3**+441223208174 info@intelligentmembranes.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English) : +441223208174

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: reactionmassof:5-chloro-2-methyl-isothiazolin-3-one [ECno.247-500-7] and2-methyl-4-isothiazolin-3 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

aluminium hydroxide 21645-51-2 01-2119529246-39 244-492-7

(2) Substance with a Community workplace exposure limit

3.2. Mixtures (2) Substance with a Community workplace exposure limit									
Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark				
		C<25%		(2)	Constituent				

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Observe (own) safety. If possible, approach victim and check vital functions. In case of injury and/or intoxication, call emergency services. Treat symptoms starting with the most life threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Move victim into the fresh air. In case of respiratory problems, consult a doctor/medical advice.

After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with lukewarm water. If irritation persists, consult a doctor/medical advice

After eve contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult poison center.

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 (EN 374). Protective clothing (EN 14605 or EN 13034). 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.

SECTION 7: Handling and storage

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

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe strict hygiene.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: 5 °C - 35 °C. 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

USA (TLV-ACGIH)

Aluminium, insoluble compounds Time-weighted average exposure limit 8 h (TLV - Adopted Value) (R): Respirable fraction

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

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/m³

Long-term local effects inhalation 10.76 mg/m³

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

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 idenfied use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

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 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 headings6.2,6.3and13

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
рН	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

Precautionary measures

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, CO2 and small quantities of nitrous vapours and sulphur oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

PASSIVE PURPLE INTERNAL BRUSH. No (test)data on the mixture available aluminium hydroxide

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 423	>2000 mg/kg bw		Rat (female)	Experimental value	
Dermal						Data waiving	
Inhalation (aerosol)	LD50	OECD 403	>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 INTERNAL BRUSH No (test)data on the mixture available aluminium hydroxide

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 INTERNAL BRUSH No (test)data on the mixture available aluminium hydroxide

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Skin	Not sensitising	OECD 406	1 h	24;48 hours	Guinea pig (male)	Experimental value	
Intratracheal instillation	Not sensitising		4 h	V	Mouse	Weight of evidence	Y

Judgement is based on the relevant ingredients Conclusion Not classified for sub chronic toxicity

Mutagenicity (in vitro)

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 INTERNAL BRUSH No (test)data on the mixture available aluminium hydroxide

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Equivalent to OECD 407	302 mg/kg food		No effect	4 weeks (daily)	Rat (male)	Weight of evidence
Inhalation (aerosol)	NOAEC	Equivalent to OECD 412	3 mg/m³ air	Lungs	No effect	4 weeks (6h/day, 5 days/week)	Rat (male)	Read-across
Inhalation (aerosol)	LOAEC	Equivalent to OECD 412	28 mg/m³ 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)

PASSIVE PURPLE INTERNAL BRUSH

No (test)data on the mixture available

aluminium hydroxide

Result	Method	Test substrate	Effect	Value determination
Negative	OECD 476	Mouse (lymphoma L5178Y cells)	No effect	Experimental value

Mutagenicity (in vitro)

PASSIVE PURPLE INTERNAL BRUSH 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 INTERNAL BRUSH No (test)data on the mixture available aluminium hydroxide

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)	Effect	Lungs	Read-across

Reproductive toxicity

PASSIVE PURPLE INTERNAL BRUSH

No (test)data on the mixture available

aluminium hydroxide Parameter Method

i arameter	rictilou							
Route of exposure	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 reproductive organ	Read-across
Effects on fertility	NOAEL (P)	OECD 422	1000 mg/kg bw	5 weeks (daily)	Rat (female)	No effect	Female reproductive organ	Read-across

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

PASSIVE PURPLE INTERNAL BRUSH No (test)data on the mixture available

Chronic effects from short and long-term exposure

PASSIVE PURPLE INTERNAL BRUSH

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

SECTION 12: Ecological information

PASSIVE PURPLE INTERNAL BRUSH No (test)data on the mixture available aluminium hydroxide

Route of exposure	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fish	LC50		>1000 mg/l	96 h	Pisces			Literature study
Acute toxicity invertebrates	EC50		>1000 mg/l	48 h	Daphnia magna			Literature study

Judgement of the mixture is based on the relevant ingredients

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

PASSIVE PURPLE INTERNAL BRUSH

Method	Remark	Value	Temperature	Value determination
	No data available			

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 andvPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

PASSIVE PURPLE INTERNAL BRUSH

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 idenfied use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Can be considered as non hazardous waste according to Direcve2008/98/EC, as amended by Regulation(EU)No1357/2014and Regulaon (EU)No2017/997. The waste code must be assigned by the user, preferably in consultation with the (environmental) authorities concerned.

13.1.2 Disposal methods

Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

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

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 15 01 02 (plastic packaging).

SECTION 14: Transport information

Road (ADR)

 14.1. UN number Transport 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 14.6. Special precautions for user Special provisions 	Not subject No
Limited quantities	
Rail (RID) 14.1. UN number Transport 14.2. UN proper shipping name 14.3. Transport hazard class(es) Hazard identification number Class	Not subject
Classification code 14.4. Packing group Packing group Labels 14.5. Environmental hazards Environmentally hazardous substance mark	Νο
14.6. Special precautions for user Special provisions Limited quantities Inland waterways (ADN)	
14.1. UN number Transport 14.2. UN proper shipping name 14.3. Transport hazard class(es) Class Classification code 14.4. Packing group	Not subject
Packing group Labels 14.5. Environmental hazards Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Limited quantities	No

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	No
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	
(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	No
Environmentally hazardous substance mark	No

Air

Labels
14.5. Environmental hazards
Environmentally hazardous substance mark
14.6. Special precautions for user
Special provisions
Passenger and cargo transport: limited quantities: maximum
quantity
per packaging

SECTION 15: Regulatory information

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

net

European legislation:

VOC content Directive 2010/75/EU

VOC content

No data available

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

Listed in Annex I, Part C, of Directive 98/83/EC on the quality of water intended for human consumption.

European drinking water standards (Directive 98/83/EC) PASSIVE PURPLE INTERNAL BRUSH Aluminium 200 µg/l

National legislation The Netherlands PASSIVE PURPLE INTERNAL BRUSH

Waste identification (the LWCA (the Netherlands): KGA category 03 Netherlands) Waterbezwaarlijkheid 11

National legislation Germany

PASSIVE PURPLE INTERNAL BRUSH

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 Schwangerschaft Gruppe MAK 8-Stunden-Mittelwert mg/m³

D

D

Aluminium-, Aluminiumoxid-, Aluminiumhydroxidhaltige Ställlube (alveolengälllngige Fraktion); 1.5 mg/m³; gemessen als alveolengängige Fraktion (vgl. Abschn. Vd) S. 191) Aluminium-, Aluminiumoxid-, Aluminiumhydroxidhaltige Ställlube (einatembare Fraktion); 4 mg/m³; gemessen als einatembare Fraktion (vgl. Abschn. Vd) S. 191) TA-Luft 5.2.1

National legislation France

PASSIVE PURPLE INTERNAL BRUSH No data available

National legislation Belgium

PASSIVE PURPLE INTERNAL BRUSH No data available

Other relevant data

PASSIVE PURPLE INTERNAL BRUSH No data available aluminium hydroxide TLV - Carcinogen Aluminium, insoluble compounds; A4

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 me. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from me to me. Only the most recent versions may be used. 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 exhausveness 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.