

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 : PASSIVE PURPLE INTERNAL BRUSH
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 known

1.3. Details of the supplier of the safety data sheet

Intelligent Membranes Ltd.
Clopton Farm, Lower Road
Croydon, SG8 0EF, United Kingdom
☎ +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: reaction mass of: 5-chloro-2-methyl-isothiazolin-3-one [ECno.247-500-7]
and 2-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

aluminium hydroxide 21645-51-2

Not applicable 01-2119529246-39 244-492-7

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 eye 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.

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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 identified 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.



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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 identified 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 headings 6.2, 6.3 and 13



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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

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.

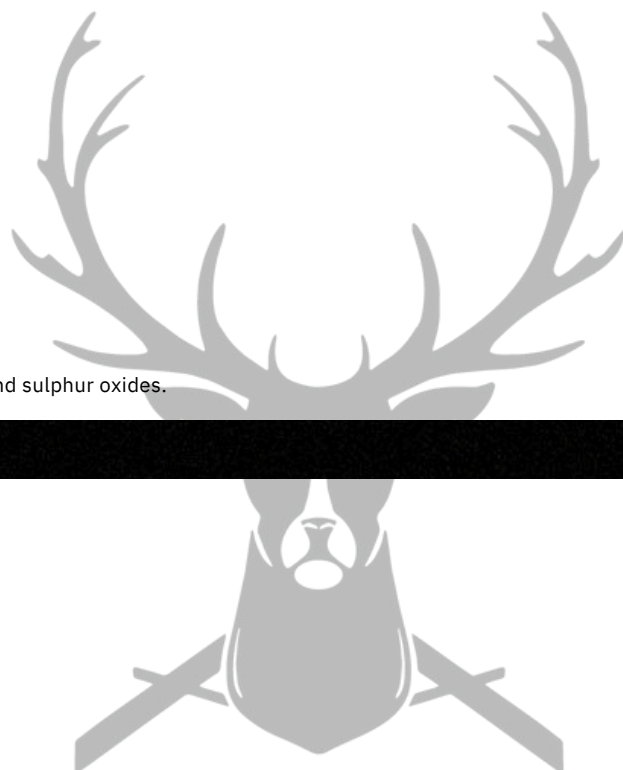
SECTION 11: Toxicological information

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



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| 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

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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

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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 | | Mouse | Weight of evidence | |

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

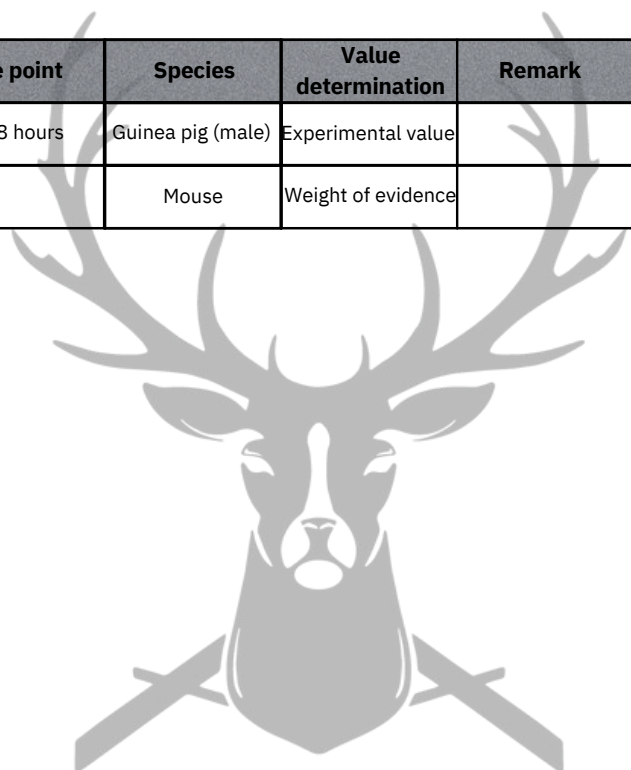
Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

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No (test)data on the mixture available
aluminium hydroxide



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| 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/m ³ air | Lungs | No effect | 4 weeks (6h/day, 5 days/week) | Rat (male) | Read-across |
| Inhalation (aerosol) | LOAEC | Equivalent to OECD 412 | 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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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

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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

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No (test)data on the mixture available
aluminium hydroxide

Parameter Method

| 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

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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.

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SECTION 12: Ecological information

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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

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| 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 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

European Union

Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. 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)).

PASSIVE PURPLE INTERNAL BRUSH

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 | |
| 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 | |



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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 | |

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 | |
| 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

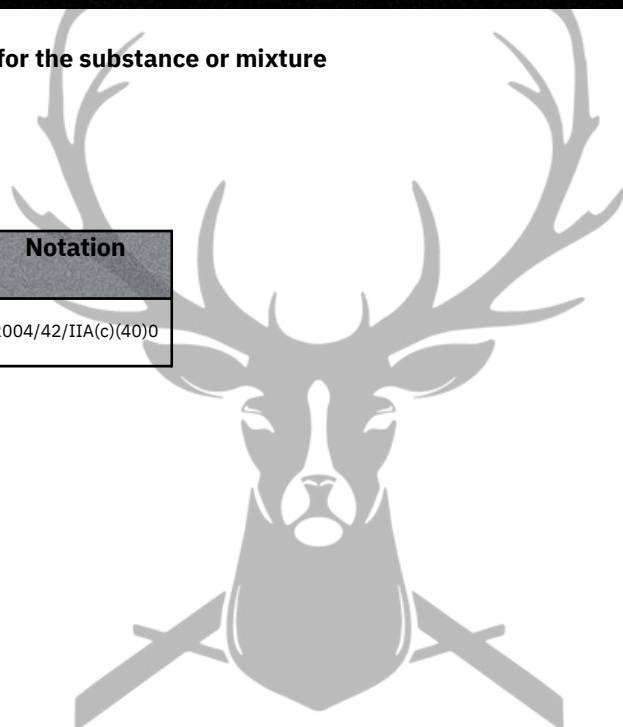
VOC content

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



PASSIVE PURPLE INTERNAL BRUSH

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 Ställube (alveolengällngige Fraktion); 1.5 mg/m³; gemessen als alveolengängige Fraktion (vgl. Abschn. Vd) S. 191)

Aluminium-, Aluminiumoxid-, Aluminiumhydroxidhaltige Ställube (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

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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 time. 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 time to time. 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 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.