

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

AC38

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

1.1. Product identifier

Product name : AC38
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

Treated article according to Regulation (EU) No 528/2012
Adhesive
Sealant

1.2.2 Uses advised against

Do not use for the manufacture of toys and childcare articles

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
☎ +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
☎ +32 14 85 97 38
info@novatech.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :
+32 14 58 45 45 (BIG)

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: 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
Contains biocides

2.3. Other hazards

Caution! Substance is absorbed through the skin

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

| Name REACH Registration No | CAS No EC No | Conc. (C) | Classification according to CLP | Note | Remark | M-factors and ATE |
|--|-------------------------|---------------------|--|---------|-------------|--|
| titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] 01-2119489379-17 | 13463-67-7 236-675-5 | 1%<C<2.5% | Carc. 2; H351 | (1)(2) | Constituent | |
| 1,2-benzisothiazol-3(2H)-one 01-2120761540-60 | 2634-33-5 220-120-9 | 0.0025% <C<0.01% | Skin Sens. 1; H317 Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Skin Sens. 1; H317: C≥0,05%, (CLP Annex VI (ATP 0)) | (1)(10) | Constituent | M: 1 (Acute, ECHA (registration dossier)) ATE inhalation (dust or mist): 0.21 mg/l ATE oral: 450 mg/kg |

- (1) For H- and EUH-statements in full: see section 16
(2) Substance with a Community workplace exposure limit
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

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 the European emergency number 112. Treat symptoms starting with most life-threatening injuries and disorders. Keep victim under observation, possibility of delayed symptoms.

After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

After skin contact:

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

After eye contact:

Rinse immediately with (lukewarm) 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:

Small fire: Quick-acting ABC powder extinguisher, Class A foam extinguisher, Water (quick-acting extinguisher, reel).

Major fire: Water, Class A foam.

5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting BC powder extinguisher, Quick-acting CO2 extinguisher.

5.2. Special hazards arising from the substance or mixture

In case of fire: possible release of toxic/corrosive gases/vapours.

5.3. Advice for firefighters

5.3.1 Instructions:

No specific fire-fighting instructions required.

5.3.2 Special protective equipment for fire-fighters:

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Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames. Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows.

6.1.1 Protective equipment for non-emergency personnel

See section 8.2

6.1.2 Protective equipment for emergency responders

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

Suitable protective clothing

See section 8.2

6.2. Environmental precautions

Contain released product.

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 section 13.

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. Observe strict hygiene. Remove contaminated clothing immediately. Keep container tightly closed.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Meet the legal requirements. Keep out of direct sunlight. Protect against frost. Keep only in the original container.

7.2.2 Keep away from:

Heat sources, oxidizing agents, reducing agents.

7.2.3 Suitable packaging material:

No data available

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

| | | |
|---------------------|--|----------------------|
| Titane (dioxyde de) | Time-weighted average exposure limit 8 h | 10 mg/m ³ |
|---------------------|--|----------------------|

France

| | | |
|----------------------------|--|----------------------|
| Titane (dioxyde de), en Ti | Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative) | 10 mg/m ³ |
|----------------------------|--|----------------------|

Germany

| | | |
|-----------------------------|--|---------------------------|
| 1,2-Benzisothiazol-3(2H)-on | <i>vgl. Abschn. IIb</i> | |
| Titandioxid | Time-weighted average exposure limit 8 h (MAK) | 0.3 mg/m ³ (1) |

(1) Alveolengängige Fraktion; UF: II(8)

Austria

| | | |
|-----------------------------|-------------------------------|--------------------------|
| Titandioxid (Alveolarstaub) | Tagesmittelwert (MAK) | 5 mg/m ³ (1) |
| | Kurzzeitwert 60(Miw) 2x (MAK) | 10 mg/m ³ (1) |

(1) Alveolengängige Fraktion

UK

| | | |
|------------------|---|--------------------------|
| Titanium dioxide | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 10 mg/m ³ (1) |
| | Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005)) | 4 mg/m ³ (2) |

(1) Total inhalable

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(2) Respirable

USA (TLV-ACGIH)

| | | |
|--|---|---------------------------|
| Titanium dioxide - finescale particles | Time-weighted average exposure limit 8 h (TLV - Intended Changes) | 2.5 mg/m ³ (1) |
| Titanium dioxide - nanoscale particles | Time-weighted average exposure limit 8 h (TLV - Adopted Value) | 0.2 mg/m ³ (1) |

(1) (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

| Product name | Test | Number |
|------------------|-------|--------|
| TiO ₂ | NIOSH | 7302 |
| TiO ₂ | NIOSH | 7304 |

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 Threshold values

DNEL/DMEL - Workers

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|------------------------------------|------------------------|--------|
| DNEL | Long-term local effects inhalation | 1.25 mg/m ³ | |

1,2-benzisothiazol-3(2H)-one

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------------|------------------------|--------|
| DNEL | Long-term systemic effects inhalation | 6.81 mg/m ³ | |
| | Long-term systemic effects dermal | 0.966 mg/kg bw/day | |

DNEL/DMEL - General population

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|------------------------------------|-----------------------|--------|
| DNEL | Long-term local effects inhalation | 210 µg/m ³ | |

1,2-benzisothiazol-3(2H)-one

| Effect level (DNEL/DMEL) | Type | Value | Remark |
|--------------------------|---------------------------------------|-----------------------|--------|
| DNEL | Long-term systemic effects inhalation | 1.2 mg/m ³ | |
| | Long-term systemic effects dermal | 0.345 mg/kg bw/day | |

PNEC

1,2-benzisothiazol-3(2H)-one

| Compartments | Value | Remark |
|--------------------------------------|------------------------|--------|
| Fresh water | 4.03 µg/l | |
| Fresh water (intermittent releases) | 1.1 µg/l | |
| Marine water | 0.403 µg/l | |
| Marine water (intermittent releases) | 110 ng/l | |
| STP | 1.03 mg/l | |
| Fresh water sediment | 49.9 µg/kg sediment dw | |
| Marine water sediment | 4.99 µg/kg sediment dw | |
| Soil | 3 mg/kg soil dw | |

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:

Respiratory protection not required in normal conditions. Dust production: dust mask with filter type P3.

b) Hand protection:

Protective gloves against chemicals (EN 374).

| Materials | Measured breakthrough time | Thickness | Protection index | Remark |
|----------------|----------------------------|-----------|------------------|--------|
| butyl rubber | > 60 minutes | 0.4 mm | Class 3 | |
| nitrile rubber | > 60 minutes | 0.4 mm | Class 3 | |

c) Eye protection:

Safety glasses (EN 166).

d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

8.2.3 Environmental exposure controls:

See sections 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 |
| Colour | White |
| Odour | Characteristic odour |
| Odour threshold | No data available in the literature |
| Melting point | No data available in the literature |
| Boiling point | No data available in the literature |
| Flammability | Not classified as flammable |
| Explosion limits | No data available in the literature |
| Flash point | > 150 °C |
| Auto-ignition temperature | No data available in the literature |
| Decomposition temperature | No data available in the literature |
| pH | 8 ; 20 °C |
| Kinematic viscosity | > 1000 mm ² /s ; 40 °C |
| Dynamic viscosity | No data available in the literature |
| Solubility | No data available in the literature |
| Log Kow | Not applicable (mixture) |
| Vapour pressure | No data available in the literature |
| Absolute density | 1650 kg/m ³ |
| Relative density | 1.65 |
| Relative vapour density | No data available in the literature |
| Particle size | Not applicable (mixture) |

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Heating increases the fire hazard.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents, reducing agents.

10.6. Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

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

11.1.1 Test results

Acute toxicity

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No (test) data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|----------|-----------------|---------------|---------------------|---------------------|--------|
| Oral | LD50 | OECD 401 | > 2000 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | | | | | | Data waiving | |
| Inhalation (dust) | LC50 | OECD 403 | 5.09 mg/l | 4 h | Rat (male) | Experimental value | |

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1,2-benzisothiazol-3(2H)-one

| Route of exposure | Parameter | Method | Value | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|------------------------|-----------------|---------------|---------------------|---------------------|--------|
| Oral | LD50 | Equivalent to OECD 401 | 490 mg/kg bw | | Rat (male / female) | Experimental value | |
| Dermal | LD50 | OECD 402 | > 2000 mg/kg bw | 24 h | Rat (male / female) | Experimental value | |
| Inhalation | | | | | | Data waiving | |

Conclusion

Not classified for acute toxicity

Corrosion/irritation

AC38

No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|-------------------|----------------|------------------------|---------------|---------------------|---------|---------------------|----------------------------------|
| Eye | Not irritating | OECD 405 | | 1; 24; 48; 72 hours | Rabbit | Experimental value | Single treatment without rinsing |
| Skin | Not irritating | Equivalent to OECD 404 | 4 h | 48 hours | Rabbit | Experimental value | |

1,2-benzisothiazol-3(2H)-one

| Route of exposure | Result | Method | Exposure time | Time point | Species | Value determination | Remark |
|-------------------|------------------------|--------------|---------------|------------------|---------|---------------------|--------|
| Eye | Serious eye damage | EPA OPP 81-4 | | 24; 48; 72 hours | Rabbit | Experimental value | |
| Skin | Slightly irritating | EPA OPP 81-5 | 4 h | 24; 48; 72 hours | Rabbit | Experimental value | |
| Skin | Irritating; category 2 | | | | | Annex VI | |

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

AC38

No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|----------------------|-----------------|------------------------|---------------|------------------------|----------------|---------------------|--------|
| Dermal (on the ears) | Not sensitizing | Equivalent to OECD 429 | | | Mouse (female) | Experimental value | |
| Inhalation (dust) | Not sensitizing | | | | Mouse (female) | Experimental value | |

1,2-benzisothiazol-3(2H)-one

| Route of exposure | Result | Method | Exposure time | Observation time point | Species | Value determination | Remark |
|-------------------|-------------|--------------|---------------|------------------------|---------------------|---------------------|--------|
| Skin | Sensitizing | EPA OPP 81-6 | | | Guinea pig (female) | Experimental value | |

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

AC38

No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Route of exposure | Parameter | Method | Value | Organ/Effect | Exposure time | Species | Value determination | Remark |
|----------------------|-----------|--------------------------|---------------------------|--------------|------------------------------------|---------------------|---------------------|--------|
| Oral (stomach tube) | NOAEL | OECD 408 | > 1000 mg/kg bw/day | No effect | 90 day(s) | Rat (male / female) | Experimental value | |
| Dermal | | | | | | | Data waiving | |
| Inhalation (aerosol) | NOAEC | Subchronic toxicity test | 2.1 mg/m ³ air | No effect | 13 weeks (6h / day, 5 days / week) | Rat (female) | Experimental value | |

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1,2-benzisothiazol-3(2H)-one

| Route of exposure | Parameter | Method | Value | Organ/Effect | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|--------------|-----------------|--------------|---------------|---------------------|---------------------|--------|
| Oral (diet) | NOAEL | EPA OPP 82-1 | 69 mg/kg bw/day | No effect | 90 day(s) | Rat (male / female) | Experimental value | |
| Dermal | | | | | | | Data waiving | |
| Inhalation | | | | | | | Data waiving | |

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|----------|-----------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | OECD 473 | Chinese hamster ovary (CHO) | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |

1,2-benzisothiazol-3(2H)-one

| Result | Method | Test substrate | Effect | Value determination | Remark |
|---|----------|-------------------------------|--------|---------------------|--------|
| Negative with metabolic activation, negative without metabolic activation | OECD 476 | Mouse (lymphoma L5178Y cells) | | Experimental value | |
| Positive with metabolic activation, positive without metabolic activation | OECD 473 | Human lymphocytes | | Experimental value | |
| Negative with metabolic activation, negative without metabolic activation | OECD 471 | Bacteria (S.typhimurium) | | Experimental value | |

Mutagenicity (in vivo)

AC38

No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Result | Method | Exposure time | Test substrate | Organ/Effect | Value determination | Remark |
|--------------------------------|----------|---------------|-----------------------|--------------|---------------------|------------------|
| Negative (Oral (stomach tube)) | OECD 474 | | Mouse (male / female) | No effect | Experimental value | Single treatment |

1,2-benzisothiazol-3(2H)-one

| Result | Method | Exposure time | Test substrate | Organ/Effect | Value determination | Remark |
|--------------------------------|----------|---------------|----------------|--------------|---------------------|------------------|
| Negative (Oral (stomach tube)) | OECD 486 | | Rat (male) | No effect | Experimental value | Single treatment |

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

AC38

No (test)data on the mixture available

Judgement is based on the relevant ingredients

The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter ≤ 10 µm.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

| Route of exposure | Parameter | Method | Value | Organ/Effect | Exposure time | Species | Value determination | Remark |
|-------------------|-----------|-----------------------------|-------------------|------------------------|---------------------------|---------------------|---------------------|--------|
| Inhalation (dust) | | | category 2 | | | | Annex VI | |
| Oral (diet) | NOEL | Carcinogenic toxicity study | 2500 mg/kg bw/day | No carcinogenic effect | 103 weeks (7 days / week) | Rat (male / female) | Experimental value | |

Conclusion

Not classified for carcinogenicity

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Reproductive toxicity

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No (test)data on the mixture available

Judgement is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

| Category | Parameter | Method | Value | Exposure time | Species | Effect | Value determination | Remark |
|--|-----------|----------|--------------------------|-------------------------|---------------------|-----------|---------------------|--------|
| Developmental toxicity (Oral (stomach tube)) | NOAEL | OECD 414 | 1000 mg/kg bw/day | 2 weeks (7 days / week) | Rat | No effect | Experimental value | |
| Maternal toxicity (Oral (stomach tube)) | NOAEL | OECD 414 | 1000 mg/kg bw/day | 2 weeks (7 days / week) | Rat | No effect | Experimental value | |
| Effects on fertility (Oral (diet)) | NOAEL | OECD 443 | ≥ 1000 mg/kg bw/day | 14 day(s) | Rat (male / female) | No effect | Experimental value | |

1,2-benzisothiazol-3(2H)-one

| Category | Parameter | Method | Value | Exposure time | Species | Effect | Value determination | Remark |
|------------------------------------|-----------|--------------------|------------------|---------------|------------|---|---------------------|--------|
| Effects on fertility (Oral (diet)) | NOAEL | EPA OPPTS 870.3800 | 112 mg/kg bw/day | 18 week(s) | Rat (male) | sperm parameters or estrous cycle (no effect) | Experimental value | |

Conclusion

Not classified for reprotoxic or developmental toxicity

Aspiration hazard

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Judgement is based on the relevant ingredients

Not classified for aspiration 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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Skin rash/inflammation.

11.2. Information on other hazards

No evidence of endocrine disrupting properties

SECTION 12: Ecological information

12.1. Toxicity

AC38

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|------------------------|------------------|-----------|---------------------------------|--------------------|------------------|---|
| Acute toxicity fishes | LC50 | | > 1000 mg/l | | Pisces | | Fresh water | Literature study |
| Acute toxicity crustacea | EC50 | | > 1000 mg/l | | Invertebrata | | Fresh water | Literature study |
| Toxicity algae and other aquatic plants | EC50 | OECD 201 | > 100 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| | NOEC | OECD 201 | ≥ 100 mg/l | 72 h | Pseudokirchneriella subcapitata | Static system | Fresh water | Experimental value; Growth rate |
| Long-term toxicity fish | NOEC | Equivalent to OECD 212 | ≥ 1000 mg/l | 8 day(s) | Danio rerio | Semi-static system | Fresh water | Experimental value; Nominal concentration |
| Long-term toxicity aquatic crustacea | NOEC | OECD 211 | ≥ 5 mg/l | 21 day(s) | Daphnia magna | Semi-static system | Fresh water | Weight of evidence; Reproduction |
| Toxicity aquatic micro-organisms | NOEC | OECD 209 | ≥ 1000 mg/l | 3 h | Activated sludge | Static system | Fresh water | Experimental value; Respiration |

No classification for aquatic toxicity since the toxicity limits are above the water solubility

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1,2-benzisothiazol-3(2H)-one

| | Parameter | Method | Value | Duration | Species | Test design | Fresh/salt water | Value determination |
|---|-----------|----------|----------|----------|---------------------------------|---------------|------------------|---|
| Acute toxicity fishes | LC50 | OECD 203 | 2.2 mg/l | 96 h | Oncorhynchus mykiss | Static system | | Experimental value; Nominal concentration |
| Acute toxicity crustacea | EC50 | OECD 202 | 2.9 mg/l | 48 h | Daphnia magna | Static system | | Experimental value; Lethal |
| Toxicity algae and other aquatic plants | ErC50 | OECD 201 | 150 µg/l | 72 h | Pseudokirchneriella subcapitata | | | Experimental value; GLP |
| Toxicity aquatic micro-organisms | EC50 | OECD 209 | 13 mg/l | 3 h | Activated sludge | | | Experimental value; Respiration |

Conclusion

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

12.2. Persistence and degradability

Water

Contains non readily biodegradable component(s)

12.3. Bioaccumulative potential

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Log Kow

| Method | Remark | Value | Temperature | Value determination |
|--------|--------------------------|-------|-------------|---------------------|
| | Not applicable (mixture) | | | |

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|--------|----------------------------|-------|-------------|---------------------|
| | Not applicable (inorganic) | | | |

1,2-benzisothiazol-3(2H)-one

BCF fishes

| Parameter | Method | Value | Duration | Species | Value determination |
|-----------|------------------------|-------------------|-----------|---------------------|---------------------|
| BCF | Equivalent to OECD 305 | 6.6; Fresh weight | 56 day(s) | Lepomis macrochirus | Experimental value |

Log Kow

| Method | Remark | Value | Temperature | Value determination |
|---------------|--------|-------------|-------------|---------------------|
| EU Method A.8 | | -0.9 - 0.99 | 20 °C | Experimental value |

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

1,2-benzisothiazol-3(2H)-one

(log) Koc

| Parameter | Method | Value | Value determination |
|-----------|----------|-------|---------------------|
| log Koc | OECD 121 | 0.97 | Experimental value |

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

12.7. Other adverse effects

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Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 2024/590)

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]

Greenhouse gases

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573)

1,2-benzisothiazol-3(2H)-one

Greenhouse gases

Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 2024/573)

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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.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 04 10 (wastes from MFSU of adhesives and sealants (including waterproofing products): waste adhesives and sealants other than those mentioned in 08 04 09). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

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

13.1.3 Packaging/Container

No data available

SECTION 14: Transport information

Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

14.1. UN number or ID 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 | |

14.7. Maritime transport in bulk according to IMO instruments

| | |
|--------------------------|---|
| Annex II of MARPOL 73/78 | Not applicable, based on available data |
|--------------------------|---|

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 in the literature |

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

| | Designation of the substance, of the group of substances or of the mixture | Conditions of restriction |
|--------------------------------|--|--|
| · 1,2-benzisothiazol-3(2H)-one | Substances falling within one or more of the following points: (a) substances classified as any of the following in Part 3 of Annex VI to Regulation (EC) No 1272/2008: — carcinogen category 1A, 1B or 2, or germ cell mutagen category 1A, 1B or 2, but excluding any such substances classified due to effects only following exposure by inhalation — reproductive toxicant category 1A, 1B or 2 but excluding any such substances classified due to effects only following exposure by inhalation — skin sensitiser category 1, 1A or 1B — skin corrosive category 1, 1A, 1B or 1C or skin irritant category 2 — serious eye damage category 1 or eye | Mixtures for tattooing purposes are subject to the restrictions of Regulation (EU) 2020/2081 |

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irritant category 2
(b) substances listed in Annex II to Regulation (EC) No 1223/2009 of the European Parliament and of the Council
(c) substances listed in Annex IV to Regulation (EC) No 1223/2009 for which a condition is specified in at least one of the columns g, h and i of the table in that Annex (d) substances listed in Appendix 13 to this Annex.
The ancillary requirements in paragraphs 7 and 8 of column 2 of this entry apply to all mixtures for use for tattooing purposes, whether or not they contain a substance falling within points (a) to (d) of this column of this entry.

National legislation Belgium

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No data available

National legislation The Netherlands

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| | |
|----------------------|---|
| Waterbezwaarlijkheid | B (4); Algemene Beoordelingsmethodiek (ABM) |
|----------------------|---|

National legislation France

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No data available

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

| | |
|-----------------------|--------------------------------|
| Catégorie cancérigène | Titane (dioxyde de), en Ti; C2 |
|-----------------------|--------------------------------|

National legislation Germany

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| | |
|-----|---|
| WGK | 1; Classification water polluting according to external literature source |
|-----|---|

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

| | |
|---------|-----------|
| TA-Luft | 5.2.2/III |
|---------|-----------|

1,2-benzisothiazol-3(2H)-one

| | |
|---------|-------|
| TA-Luft | 5.2.1 |
|---------|-------|

National legislation Austria

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No data available

National legislation United Kingdom

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No data available

Other relevant data

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No data available

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$]

| | |
|-----------------------|----------------------|
| IARC - classification | 2B; Titanium dioxide |
|-----------------------|----------------------|

| | |
|------------------|--|
| TLV - Carcinogen | Titanium dioxide - finescale particles; A3 |
|------------------|--|

| | |
|--|--|
| | Titanium dioxide - nanoscale particles; A3 |
|--|--|

15.2. Chemical safety assessment

No chemical safety assessment is required for a mixture.

SECTION 16: Other information

Full text of any H- and EUH-statements referred to under section 3:

H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H351 Suspected of causing cancer if inhaled.
H400 Very toxic to aquatic life.
EUH208 Contains a sensitising substance. May produce an allergic reaction.

| | |
|--------------|--|
| (*) | INTERNAL CLASSIFICATION BY BIG |
| ADI | Acceptable daily intake |
| AOEL | Acceptable operator exposure level |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration Factor |
| BEI | Biological Exposure Indices |
| CLP (EU-GHS) | Classification, labelling and packaging (Globally Harmonised System in Europe) |
| DMEL | Derived Minimal Effect Level |
| DNEL | Derived No Effect Level |

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| | |
|-------------|---|
| EC10 | Effect Concentration 10 % |
| EC50 | Effect Concentration 50 % |
| ErC50 | EC50 in terms of reduction of growth rate |
| GLP | Good Laboratory Practice |
| LC0 | Lethal Concentration 0 % |
| LC50 | Lethal Concentration 50 % |
| LD50 | Lethal Dose 50 % |
| LOAEC/LOAEL | Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level |
| NOAEC/NOAEL | No Observed Adverse Effect Concentration/No Observed Adverse Effect Level |
| NOEC/NOEL | No Observed Effect Concentration/No Observed Effect Level |
| OECD | Organisation for Economic Co-operation and Development |
| PBT | Persistent, Bioaccumulative & Toxic |
| PNEC | Predicted No Effect Concentration |
| STP | Sludge Treatment Process |
| vPvB | very Persistent & very Bioaccumulative |

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.

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