ASTROFLAME
PASSIVE FIRE STOP SYSTEMS

Safety Data Sheet - Europe (EU)

Astro Coat - Spray Grade

Revision 11 - 31st October 2024



0843-UKTA-24/0040
0843-CPR-1388

CE-ETA - 20-1091
CE-2531-CPR-CXO10296

Astroflame (Fireseals) LTD : Unit 8 , I.O Centre : Stephenson Road : Segensworth : Fareham : PO15 5RU
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According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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

1.1. Product identifier

Product form : Mixture
Product Name : Astro Coat - Spray Grade
Type of product : Surface coatings and colourants
Product group : Trade product
Product Code : AFBCOAT5L

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

Main use category : Professional use
Industrial/Professional use spec : For professional use only
Use of substance/Mixture : Coatings and paints, thinners, paint removers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company Name :	Astroflame (Fireseals) LTD Unit 8 , I.O Centre Stephenson Road Segensworth Fareham PO15 5RU United Kingdom	**EU Importer :**	Hofstee Preventie Service V.O.F Plesmanstraat 53 7903 BG Hoogeveen Netherlands
Tel Number :	(0) 44 1329 844500	**Tel Number :**	0031 59333 1776
Email :	sales@astroflame.com	**Email :**	info@hpsmail.nl

1.4. Emergency telephone number

Tel Number : (0) 44 1329 844500 Language: English - Office hours 8am to 5:30pm GMT
0031 593331776 Language: Language: English/Dutch

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Adverse physicochemical, human health and environmental effects
To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH208 - Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
EUH210 - Safety data sheet available on request.

2.3. Other hazards

Other hazards which do not result in classification : Dust formation.
Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII
The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Section 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Calcium carbonate	CAS-No.: 471-34-1 EC-No.: 207-439-9	30 – 50	Not classified
Aluminium Hydroxide	CAS-No.: 21645-51-2 EC-No.: 244-492-7 REACH-no: 01-2119529246-39	10 – 30	Not classified
Titanium Dioxide	CAS-No.: 13463-67-7 EC-No.: 236-675-5 EC Index-No.: 022-006-00-2 REACH-no: 01-2119489379-17	< 1	Carc. 2, H351
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	< 1	Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Oral), H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	(0.0015 ≤C ≤ 100) Skin Sens. 1A, H317 (0.06 ≤C < 0.6) Skin Irrit. 2, H315 (0.06 ≤C < 0.6) Eye Irrit. 2, H319 (0.6 ≤C ≤ 100) Skin Corr. 1C, H314 (0.6 ≤C ≤ 100) Eye Dam. 1, H318

Comments : Titanium dioxide
Note 10 : 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.

Full text of H- and EUH-statements: see section 16

Section 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause minor irritation to the respiratory tract and to other mucous membranes.
Symptoms/effects after skin contact : May cause slight irritation to the skin.
Symptoms/effects after eye contact : May cause minor eye irritation.
Symptoms/effects after ingestion : May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.

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

Treat symptomatically.

Section 5: Fire-Fighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Thermal decomposition generates : Carbon dioxide. Carbon monoxide. Toxic fumes may be released.

5.3. Advice for fire - fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/ personal protection”.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up : Ventilate spillage area. Take up liquid spill into absorbent material. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Prevent the product from entering drains or confined areas.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: “Exposure controls/ personal protection”.

Section 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid dust formation.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Incompatible products : Strong acids.

7.3. Specific end use(s)

No additional information available

Section 8: Control parameters/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9)	
Austria - Occupational Exposure Limits	
Local name	5-Chlor-2-methyl-2,3-dihydroisothiazol-3-on und 2-Methyl-2,3-di-hydroisothiazol-3-on (Gemisch im Verhältnis 3:1)
MAK (OEL TWA)	0.05 mg/m³
Remark	Sh
Regulatory reference	BGBl. II Nr. 238/2018

Switzerland - Occupational Exposure Limits	
Local name	2,3-Dihydro-isothiazol-3-one de 5-chloro-2-méthyle et 2,3-dihydro-isothiazol-3-one de 2-méthyle [2,3-Dihydro-isothiazol-3-one de 5-chloro-2-méthyle, 2,3-Dihydro-isothiazol-3-one de 2-méthyle] / 5-Chlor-2-methyl-2,3-dihydro-isothiazol-3-on und 2-Methyl-2,3-dihydroisothiazol-3-on [2-Methyl-2,3-dihydroisothiazol-3-on, 5-Chlor-2-methyl-2,3-dihydroisothiazol-3-on]
MAK (OEL TWA) [1]	0.2 mg/m³ (i) / (e)
KZGW (OEL STEL)	0.4 mg/m³ (i) / (e)
Critical toxicity	VRS, Peau, Yeux / OAW, Haut, Auge
Notation	S, SS_C / S, SS_C
Regulatory reference	www.suva.ch, 01.01.2021

Titanium Dioxide (13463-67-7)	
Austria - Occupational Exposure Limits	
Local name	Titandioxid (Alveolarstaub)
MAK (OEL TWA)	5 mg/m³ (A)
MAK (OEL STEL)	10 mg/m³ (A, 2x 60(Miw) min)
Regulatory reference	BGBl. II Nr. 238/2018

Belgium - Occupational Exposure Limits	
Local name	Titane (dioxyde de) # Titaandioxide
OEL TWA	10 mg/m³
Regulatory reference	Koninklijk besluit/Arrêté royal 11/05/2021

Bulgaria - Occupational Exposure Limits	
Local name	Титанов диоксид
OEL TWA	10 mg/m³ (респирабилен прах)
Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр. 47 от 2021 г., в сила от 04.06.2021 г.)

Croatia - Occupational Exposure Limits	
Local name	Titanov dioksid
GVI (OEL TWA) [1]	10 mg/m³ U (ukupna prašina) 4 mg/m³ R (respirabilna prašina)
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Denmark - Occupational Exposure Limits	
Local name	Titandioxid
OEL TWA [1]	6 mg/m³ beregnet som Ti
Regulatory reference	BEK nr 2203 af 29. november 2021

Estonia - Occupational Exposure Limits	
Local name	Titaanoksiid
OEL TWA	5 mg/m³
Regulatory reference	Vabariigi Valitsuse 20. märtsi 2001. a määruse nr 105 (RT I, 15.05.2021, 1)

France - Occupational Exposure Limits	
Local name	Titane (dioxyde de), en Ti
VME (OEL TWA)	10 mg/m³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)

Greece - Occupational Exposure Limits	
Local name	Τιτανίου διοξείδιο
OEL TWA	10 mg/m³ εισπν. 5 mg/m³ σναπν.
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους

Ireland - Occupational Exposure Limits	
Local name	Titanium dioxide
OEL TWA [1]	10 mg/m³ total inhalable dust 4 mg/m³ respirable dust
Regulatory reference	Chemical Agents Code of Practice 2021

Latvia - Occupational Exposure Limits	
Local name	Titāna dioksīds
OEL TWA	10 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)

Lithuania - Occupational Exposure Limits	
Local name	Titano dioksidas
IPRV (OEL TWA)	5 mg/m³
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)

Poland - Occupational Exposure Limits	
Local name	Ditlenek tytanu
NDS (OEL TWA)	10 mg/m³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikająca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia. Obowiązuje jednoczesne oznaczanie stężeń frakcji respirabilnej krzemionki krystalicznej.
Regulatory reference	Dz. U. 2018 poz. 1286

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Portugal - Occupational Exposure Limits	
Local name	Dióxido de titânio
OEL TWA	10 mg/m³
Remark	A4 (Agente não classificável como carcinogénico no Homem)
Regulatory reference	Norma Portuguesa NP 1796:2014

Romania - Occupational Exposure Limits	
Local name	Dioxid de titan
OEL TWA	10 mg/m³
OEL STEL	15 mg/m³
Regulatory reference	Hotărârea Guvernului nr. 1.218/2006 (Hotărârea nr. 53/2021)

Slovakia - Occupational Exposure Limits	
Local name	Oxid titaničitý
NPHV (OEL TWA) [1]	5 mg/m³
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)

Spain - Occupational Exposure Limits	
Local name	Dióxido de titanio
VLA-ED (OEL TWA) [1]	10 mg/m³
Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2022. INSHT

Sweden - Occupational Exposure Limits	
Local name	Titandioxid
OEL TWA	5 mg/m³ totaldamm
Remark	3 (Med totaldamm menas de partiklar (aerosoler) som fastnar på ett filter i den provtagare som beskrivs i Metodserien, Provtagning av totaldamm och respirabelt damm, Metod nr 1010, Arbetarskyddsstyrelsen, numera Arbetsmiljöverket. Filterdiametern är normalt 37 mm, men kan även vara 25 mm. Trots sitt namn provtas inte den totala mängden luftburna partiklar med denna metod)
Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)

United Kingdom - Occupational Exposure Limits	
Local name	Titanium dioxide
WEL TWA (OEL TWA) [1]	4 mg/m³ respirable 10 mg/m³ total inhalable
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Iceland - Occupational Exposure Limits	
Local name	Títandíoxíð, sem Ti
OEL TWA	6 mg/m³
Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)

Norway - Occupational Exposure Limits	
Local name	Titandioksid
Grenseverdi (OEL TWA) [1]	5 mg/m³
Regulatory reference	FOR-2021-06-28-2248

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Switzerland - Occupational Exposure Limits	
Local name	Dioxyde de titane / Titandioxid
MAK (OEL TWA) [1]	3 mg/m³ (a) / (a)
Critical toxicity	VRI / UAW
Notation	SS_c / SS_c
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

Aluminium Hydroxide (21645-51-2) **Austria - Occupational Exposure Limits**	
Local name	Aluminiumhydroxid
MAK (OEL TWA)	5 mg/m³ (A)
MAK (OEL STEL)	10 mg/m³ (A, 2x 60(Miw) min)
Regulatory reference	BGBl. II Nr. 238/2018

Latvia - Occupational Exposure Limits	
Local name	Alumīnija hidroksīds
OEL TWA	6 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)

Lithuania - Occupational Exposure Limits	
Local name	Aliuminio hidroksidas
IPRV (OEL TWA)	6 mg/m³
Remark	F (fibrogeninis poveikis)
Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)

Poland - Occupational Exposure Limits	
Local name	Wodorotlenek glinu
NDS (OEL TWA)	2.5 mg/m³ w przeliczeniu na Al: frakcja wdychalna 1.2 mg/m³ w przeliczeniu na Al: frakcja respirabilna
Remark	Frakcja wdychalna – frakcja aerozolu wnikająca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia. Frakcja respirabilna – frakcja aerozolu wnikająca do dróg oddechowych, która stwarza zagrożenie dla zdrowia po zdeponowaniu w obszarze wymiany gazowej.
Regulatory reference	Dz. U. 2018 poz. 1286

Slovakia - Occupational Exposure Limits	
Local name	Hydroxid hlinitý
OEL TWA	4 mg/m³ inhalovateľná frakcia – prach 1.5 mg/m³ respirabilná frakcia – prach
Regulatory reference	Nariadenie vlády č. 355/2006 Z. z. (236/2020 Z. z.)

United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	10 mg/m³ total dust 4 mg/m³ respirable dust

Switzerland - Occupational Exposure Limits	
Local name	Aluminium hydroxyde / Aluminiumhydroxid
MAK (OEL TWA) [1]	3 mg/m³ (a) / (a)
Critical toxicity	Formel / Formal
Notation	B / B
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

Switzerland - BAT	
Local name	Aluminium hydroxyde / Aluminiumhydroxid
BAT	50 µg/g creatinine (0.21 µmol/mmol cr.; Paramètre biologique: Aluminium; Substrat d'examen: Urine; Moment du prélèvement: Exposition de longue durée: après plusieurs périodes de travail.) / (0.21 µmol/mmol cr.; Biologischer Parameter: Aluminium; Untersuchungsmaterial: Urin; Probennahmezeitpunkt: Bei Langzeitexposition: nach mehreren vorangegangenen Schichten.)
Regulatory reference	Ordonnance 832.30 (OPA), article 50 al. 3, www.suva.ch/valeurs-limites / Verordnung 832.30 (VUV), Art. 50 Abs. 3, www.suva.ch/grenzwerte

Calcium carbonate (471-34-1) **Croatia - Occupational Exposure Limits**	
Local name	Kalcijev karbonat
GVI (OEL TWA) [1]	4 mg/m³ R (respirabilna prašina) 10 mg/m³ U (ukupna prašina)
Regulatory reference	Pravilnik o zaštiti radnika od izloženosti opasnim kemikalijama na radu, graničnim vrijednostima izloženosti i biološkim graničnim vrijednostima (NN 1/2021)

France - Occupational Exposure Limits	
Local name	Calcium (carbonate de) (Calcite) (Marbre)
VME (OEL TWA)	10 mg/m³
Remark	Valeurs recommandées/admises
Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)

Germany - Occupational Exposure Limits (TRGS 552)	
Concentration limits	6 mg/m³

Ireland - Occupational Exposure Limits	
Local name	Calcium carbonate [Limestone, Marble]
OEL TWA [1]	10 mg/m³ total inhalable dust 4 mg/m³ respirable dust
Regulatory reference	Chemical Agents Code of Practice 2021

Latvia - Occupational Exposure Limits	
Local name	Kalcija karbonāts
OEL TWA	6 mg/m³
Regulatory reference	Ministru kabineta 2007. gada 15. maija noteikumiem Nr. 325 (Grozījumi Ministru kabineta 2011. gada 1. februārī noteikumiem Nr. 92)

Poland - Occupational Exposure Limits	
Local name	Węglan wapnia
NDS (OEL TWA)	10 mg/m³ frakcja wdychalna
Remark	Frakcja wdychalna – frakcja aerozolu wnikająca przez nos i usta, która po zdeponowaniu w drogach oddechowych stwarza zagrożenie dla zdrowia.
Regulatory reference	Dz. U. 2018 poz. 1286

United Kingdom - Occupational Exposure Limits	
Local name	Calcium carbonate (Limestone, Marble)
WEL TWA (OEL TWA) [1]	10 mg/m³ total inhalable 4 mg/m³ respirable
WEL STEL (OEL STEL)	4 mg/m³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

Switzerland - Occupational Exposure Limits	
Local name	Carbonate de calcium / Calciumcarbonat
MAK (OEL TWA) [1]	3 mg/m³ (a) / (a)
Remark	NIOSH
Regulatory reference	www.suva.ch, 28.03.2022

USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	10 mg/m³

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Dust formation: dust mask.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Safety glasses			EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
Protective gloves

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
Disposable gloves					EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Gas mask	Type P2, Type P3		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: white.
Odour	: Not available
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 5 – 9
Viscosity, kinematic	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 1.3 – 1.4
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

Section 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazerdous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Oxidizing agent. Strong acids.

10.6. Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11: Toxicological information

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

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

Titanium Dioxide (13463-67-7)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)
LC50 Inhalation - Rat	> 6.8 mg/l/4h

Aluminium Hydroxide (21645-51-2)	
LD50 oral rat	> 2000 mg/kg bodyweight
LC50 Inhalation - Rat	> 2.3 mg/l

Calcium carbonate (471-34-1)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
LC50 Inhalation - Rat	> 3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)

Skin corrosion/irritation : Not classified
pH: 5 – 9

Titanium Dioxide (13463-67-7)	
pH	6 – 8

Aluminium Hydroxide (21645-51-2)	
pH	9

Calcium carbonate (471-34-1)	
pH	8.5 – 9.5

Serious eye damage/irritation : Not classified
pH: 5 – 9

Titanium Dioxide (13463-67-7)	
pH	6 – 8

Aluminium Hydroxide (21645-51-2)	
pH	9

Calcium carbonate (471-34-1)	
pH	8.5 – 9.5

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

Aluminium Hydroxide (21645-51-2)	
NOAEL (animal/male, F0/P)	1000 mg/kg bodyweight

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified

Calcium carbonate (471-34-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard : Not classified

Aluminium Hydroxide (21645-51-2)	
Viscosity, kinematic	Not applicable

Calcium carbonate (471-34-1)	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

No additional information available

Section 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term: (acute) Not classified

Hazardous to the aquatic environment, short-term: (chronic) Not classified

Not rapidly degradable

Titanium Dioxide (13463-67-7)	
LC50 - Fish [1]	> 1000 mg/l
EC50 - Crustacea [1]	> 1000 mg/l
EC50 - Other aquatic organisms [1]	> 100 mg/l Test organisms (species):
EC50 72h - Algae [1]	> 100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	5 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 2.92 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Calcium carbonate (471-34-1)	
LC50 - Fish [1]	> 10000
EC50 - Crustacea [1]	> 1000
EC50 72h - Algae [1]	> 200 mg/l

12.2. Persistence and Degradability

No additional information available

12.3. Bioaccumulative potential

Astro Coat - Spray Grade	
Bioaccumulative potential	Not potentially bioaccumulable.

Calcium carbonate (471-34-1)	
Partition coefficient n-octanol/water (Log Pow)	< 1

12.4. Mobility in soil

Astro Coat - Spray Grade	
Ecology - soil	Product adsorbs onto the soil. Liquid product : Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

Section 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself. Non-contaminated packages may be recycled.

European List of Waste (LoW) code : 08 01 12 - waste paint and varnish other than those mentioned in 08 01 11

Section 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

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

Not applicable

Section 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)
Contains no REACH substances with Annex XVII restrictions
REACH Annex XIV (Authorisation List)
Contains no REACH Annex XIV substances
REACH Candidate List (SVHC)
Contains no substance on the REACH candidate list
PIC Regulation (Prior Informed Consent)
Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.
POP Regulation (Persistent Organic Pollutants)
Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants
Ozone Regulation (1005/2009)
Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.
Explosives Precursors Regulation (2019/1148)
Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.
Drug Precursors Regulation (273/2004)
Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

Germany

Employment restrictions	:	Observe restrictions according Act on the Protection of Working Mothers (MuSchG). Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
Water hazard class (WGK)	:	WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).
Hazardous Incident Ordinance (12. BImSchV)	:	Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

ABM category	:	Z(1) - non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or persistence)
SZW-lijst van kankerverwekkende stoffen	:	None of the components are listed
SZW-lijst van mutagene stoffen	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	:	None of the components are listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	:	None of the components are listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Section 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
2.3	Other hazards which do not result in classification	Added	Dust formation hazard added
3	Composition/information on ingredients	Modified	Inclusion of isothiazolinones and titanium dioxide
4.2	Additional information	Added	Included additional information on symptoms and effects
5.2	Hazardous decomposition products in case of fire	Modified	
6.3	Methods for cleaning up	Modified	Included further information on the correct clean up process
7.1	Precautions for safe handling	Modified	Avoid dust formation added
7.2	Incompatible products	Added	Strong acids added
8.2	Personal protective equipment	Modified	Modified the information to include PPE requirement for spraying
8.2	Respiratory protection	Modified	Detailed the required mask and filter type
12.3	Bioaccumulative potential	Added	
12.4	Ecology - soil	Modified	
13.1	Additional information	Added	Information added in regards to packaging and recycling
13.1	European List of Waste (LoW) code	Added	

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

According to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
EUH208	Contains reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A

The classification complies with : ATP 12

Safety Data Sheet (SDS) CUSTOM 2020/878

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