Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 1. Identification of the substance and of the company/undertaking

Company details:

Protectcoat International
Spinding 16
5431 SN CUIJK
The Netherlands
+31 (0)85-0655797
www.protectcoatint.com

Trade name : Protectcoat GRS4 Remover

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

Graffiti Removal

1.3 Emergency telephone number:

EU: call 112

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Skin Corr. 1A; H315
Eye Dam. 1; H318

2.2 Label elements

Signal word:

Danger

Hazard statements

Causes severe skin burns and eye damage. (H314)

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Precautionary statements

General	Keep out of reach of children. (P102).
Prevention	Do not breathe vapour/mist. (P260) Wear face protection/protective gloves/protective clothing. (P280)
Response	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338) Immediately call a POISON CENTER/doctor. (P310)
Storage	-
Disposal	Dispose of contents/container to an approved waste disposal plant. (P501).

Hazardous substances

potassium hydroxide 2-aminoethanol

Additional labelling

Not applicable.

2.3. Other hazards

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Section 3. Composition information on ingredients

NAME:	potassium hydroxide
IDENTIFICATION NOS.:	CAS No.: 1310-58-3, EC No.: 215-181-3, UK-REACH: Index No.: 019-002-00-8
%w/w:	15-25%
CLP CLASSIFICATION:	Met. Corr. 1, H290 Acute Tox. 4, H302 Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Corr. 1A, H314 Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Irrit. 2, H319 (SCL: 0.50 %)
NAME:	2,2',2''-nitrilotriethanol
IDENTIFICATION NOS.:	CAS No.: 102-71-6 EC No.: 203-049-8 UK-REACH: Index No.:
%w/w:	10 - <15%
CLP CLASSIFICATION:	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2 H226, H304, H335, H336, H411, EUH066
NAME:	2-butoxyethanol
IDENTIFICATION NOS.:	CAS No.: 111-76-2 EC No.: 203-905-0 UK-REACH: Index No.: 603-014-00-0
CONTENT:	5-10%
CLP CLASSIFICATION:	Acute Tox. 4, H302 (ATE: 1200.00 mg/kg) Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332
NAME:	2-aminoethanol
IDENTIFICATION NOS.:	CAS No.: 141-43-5 EC No.: 205-483-3 UK-REACH:
CONTENT:	1-3%
CLP CLASSIFICATION:	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Acute Tox. 4, H332

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Index No.: 603-030-00-8 STOT SE 3, H335 Aquatic Chronic 3, H412

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.
Other information [1] European occupational exposure limit.
Labelling of contents according to Detergents Regulation (EC) No 648/2004
-
NOTE:

NAME:	dimethyl succinate
IDENTIFICATION NOS.:	CAS-no: 627-93-0 EC-no: 211-020-6 REACH-no: 01-2119911093-50
CONTENT:	2.5 - <5%
CLP CLASSIFICATION:	

Section 4. First aid measures

4.1 Description of first aid measures

General information
In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation
Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her

Skin contact
Flush exposed area with water for a long time - at least 30 minutes. It may be necessary to flush for several hours. Use a comfortable water temperature (20-30 °C). Contact Poison Information/doctor/hospital for further advice on follow-up and treatment. Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. If skin irritation occurs: Get medical advice/attention

Eye contact
Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 30 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion
In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns
Not applicable

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According to EC-Regulation 2015/830

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

No special.

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

IF exposed or concerned: Get immediate medical advice/attention.

Information to medics Bring this safety data sheet

Section 5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters. If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are: Nitrogen oxides (NO_x) Carbon oxides (CO / CO2) Some metal oxides

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

Section 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Limit spillage and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste. Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 “Disposal considerations” on handling of waste. See section 8 "Exposure controls/personal protection" for protective measures.

Section 7. Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product. Smoking, drinking and consumption of food is not allowed in the work area. See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

Room temperature 18 to 23°C

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

Section 8. Exposure controls/personal protection

8.1. Control parameters

-

Potassium hydroxide
Short term exposure limit (15 minutes) (mg/m³): 2

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2-butoxyethanol
Long term exposure limit (8 hours) (ppm): 25
Long term exposure limit (8 hours) (mg/m³): 123
Short term exposure limit (15 minutes) (ppm): 50
Short term exposure limit (15 minutes) (mg/m³): 246
Annotations:
BMVG = Biological Monitoring Guidance Value exists
Sk = Can be absorbed through the skin and lead to systemic toxicity

__

2-aminoethanol
Long term exposure limit (8 hours) (ppm): 1
Long term exposure limit (8 hours) (mg/m³): 2,5
Short term exposure limit (15 minutes) (ppm): 3
Short term exposure limit (15 minutes) (mg/m³): 7,6
Annotations:
Sk = Can be absorbed through the skin and lead to systemic toxicity.
The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Dnel

2-aminoethanol

Duration	**Route of exposure**	**DNEL**
Long term – Systemic effects – General population	Dermal	0.24 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	1 mg/kg bw/day
Long term – Local effects - General population	Inhalation	2 mg/ m³
Long term – Local effects – Workers	Inhalation	3.3 mg/ m³
Long term – Systemic effects - General population	Inhalation	2 mg/ m³
Long term – Systemic effects – Workers	Inhalation	3.3 mg/ m³
Long term – Systemic effects - General population	Oral	3.75 mg/bw/dag

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Dnel

2- -butoxyethanol

Duration	**Route of exposure**	**DNEL**
Long term – Systemic effects - General population	Inhalation	59 mg/ m^3
Long term – Systemic effects – Workers	Inhalation	98 mg/ m^3
Short term – Local effects - General population	Inhalation	147 mg/ m^3
Short term – Local effects – Workers	Inhalation	246 mg/ m^3
Short term – Systemic effects - General population	Inhalation	426 mg/ m^3
Short term – Systemic effects – Workers	Inhalation	1091 mg/ m^3
Long term – Systemic effects - General population	Oral	6.3 mg/kg bw/day
Short term – Systemic effects - General population	Oral	26.7 mg/kg bw/day

potassium hydroxide

Duration	**Route of exposure**	**DNEL**
Long term – Local effects - General population	Inhalation	1mg/ m^3
Long term – Local effects – Workers	Inhalation	1 mg/m^3

PNEC

2-aminoethanol

Route of exposure	**Duration of Exposure**	**PNEC**
Freshwater		0.085 mg/L
Freshwater sediment		0.434 mg/kg
Intermittent release		0.028 mg/L
Marine water		0.0085 mg/L
Marine water sediment		0.0434 mg/kg
Sewage treatment plant		100 mg/L
Soil		1.29 mg/kg

2-butoxyethanol

Route of exposure	**Duration of Exposure**	**PNEC**
Freshwater		8.8 mg/L
Freshwater sediment		34.6 mg/kg
Intermittent release		26.4 mg/L
Marine water		0.88 mg/L
Marine water sediment		3.46 mg/kg
Sewage treatment plant		463 mg/L
Soil		2.33 mg/kg

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

8.2 Exposure Control

Compliance with the given occupational exposure limits values should be controlled on a regular basis..

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product..

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above).
Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended.
Ensure emergency eyewash and -showers are clearly marked.

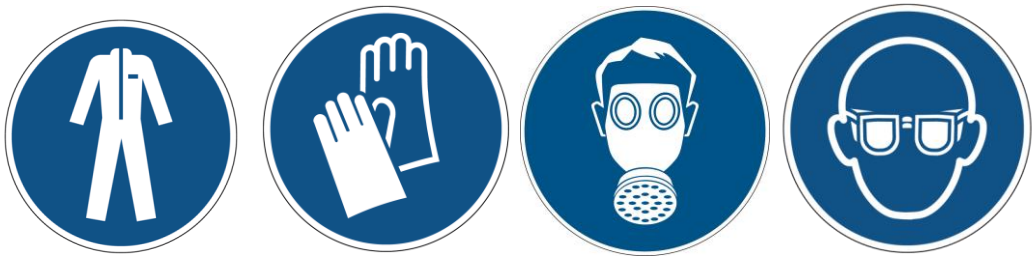
Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Use only UKCA marked protective equipment

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Liquid
Colour	Tan
Odour	Characteristic
Odour threshold (ppm)	No data available.
pH	14
Viscosity (40°C)	No data available.
Density (g/cm³)	1.1
Phase changes	
Melting point (°C)	Testing not relevant or not possible due to the nature of the product.
Boiling point (°C)	Testing not relevant or not possible due to the nature of the product.
Vapour pressure	Testing not relevant or not possible due to the nature of the product.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.
Data on fire and explosion hazards	
Flash point (°C)	Testing not relevant or not possible due to the nature of the product
Ignition (°C)	Testing not relevant or not possible due to the nature of the product.
Auto flammability (°C)	Testing not relevant or not possible due to the nature of the product
Explosion limits (% v/v)	No data available.
Explosive properties	No data available.
Solubility	
Solubility in water	Completely soluble
n-octanol/water coefficient	Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Solubility in fat (g/L)	No data available.

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 10. Stability and reactivity

10.1. Reactivity
No data available
10.2. Chemical stability
The product is stable under the conditions, noted in the section 7 “Handling and storage”.
10.3. Possibility of hazardous reactions
Nothing special
10.4. Conditions to avoid
Nothing special
10.5. Incompatible materials
Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.
10.6. Hazardous decomposition products
The product is not degraded when used as specified in section 1.

Section 11. Toxicological information

11.1 Informatie on toxicological effects

Acute toxicity

Substance: potassium hydroxide
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 333.0mg/kg

Substance: 2-butoxyethanol
Species: Guinea pig
Test: LD50
Route of exposure: Dermal
Result: 1414 mg/kg

Substance: 2-butoxyethanol
Species: Guinea pig, female
Test: LC0
Route of exposure: Inhalation
Result: >3.1 mg/l

Substance: 2-butoxyethanol
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 1300mg/kg

Substance: 2- aminoethanol
Species: Rat
Test: LD50
Route of exposure: Oral
Result: 1089mg/kg

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Substance: 2- aminoethanol
Species: Rat
Test: LD50
Route of exposure: Dermal
Result: 2504mg/kg

Substance: 2- aminoethanol
Species: Rat
Test: LD50
Route of exposure: Inhalation
Result: 1478mg/m^3

Substance: dimethyl succinate
Species: Daphnia
Test: EC50
Duration: 48h
Result: 112-150mg/l

Substance: dimethyl succinate
Species: Algae
Test: EC50
Duration: 72h
Result: >85mg/l

Substance: α^3-butyrolactone
Species: Fish
Test: LC50
Duration: 96h Result: 318 mg/l

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Skin corrosion/irritation
Causes severe skin burns and eye damage.
Serious eye damage/irritation
Causes serious eye damage.
Respiratory sensitisation
Based on available data, the classification criteria are not met.
Skin sensitisation
Based on available data, the classification criteria are not met.
Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Carcinogenicity
Based on available data, the classification criteria are not met.
Reproductive toxicity
Based on available data, the classification criteria are not met.
STOT-single exposure
Based on available data, the classification criteria are not met.
STOT-repeated exposure
Based on available data, the classification criteria are not met.
Aspiration hazard
Based on available data, the classification criteria are not met.

11.2. Information on other hazards
Long term effects
Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.
Endocrine disrupting properties
No special.
Other information
2-butoxyethanol has been classified by IARC as a group 3 carcinogen

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 12. Ecological information

12.1 Toxicity

Substance: potassium hydroxide
Species: Fish
Test: LC50
Duration: 96h
Result: 80mg/l

Substance: potassium hydroxide
Species: Daphnia, Daphnia magna
Test: EC50
Duration: 48h
Result: 40-240mg/l

Substance: 2-butoxyethanol
Species: Algae Pseudokirchneriella subcapitata
Test: EC50
Duration: 72h
Result: 1840 mg/l

Substance: 2-butoxyethano
Species: Fish Oncorhynchus mykiss
Test: LC50
Duration: 96h
Result: 1474 mg/l

Substance: 2-butoxyethanol
Species: Daphnia Daphnia magna
Test: EC50
Duration: 48h
Result: 1550mg/l

Substance: 2-butoxyethanol
Species: Fish, Danio rerio
Test: NOEC
Duration: 21days
Result: 100 mg/l

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Substance: 2-butoxyethano
Species: Daphnia, Daphnia magna
Test: NOEC
Duration: 21 days
Result: 100 mg/l

Substance: 2-aminoethanol
Species: Fish
Test: LC50
Duration: 96h
Result: >100 mg/l

Substance: 2-aminoethanol
Species: Daphnia, Daphnia magna
Test: EC50
Duration: 48h
Result: >65 mg/l

Substance: 2-aminoethanol
Species: Algae, Pseudokirchneriella subcapitata
Test: EC50
Duration: 72h
Result: 2.8 mg/l

Substance: 2-aminoethanol
Species: Daphnia, Daphnia magna
Test: NOEC
Duration: 21 days
Result: 0.85 mg/l

12.2 Persistence and degradability
Product/substance 2-butoxyethanol
Biodegradable Yes
Test method OECD 301 B
Result 90,4%

Product/substance 2-aminoethanol
Biodegradable Yes
Test method Result

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

12.3. Bioaccumulative potential

Product/substance	potassium hydroxide
Test method	
Potential bioaccumulation	No
LogPow	No data available.
BCF	No data available.
Other information	

Product/substance	2-butoxyethanol
Test method	
Potential bioaccumulation	No
LogPow	0.8100
BCF	No data available.
Other information.	

Product/substance	2-aminoethanol
Test method	
Potential bioaccumulation	No
LogPow	-1.9100
BCF	No data available.
Other information	

12.4. Mobility in soil

No data available mobility potential.

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special.

12.7. Other adverse effects

No special.

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 13. Disposal Considerations information

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste. HP 6 - Acute toxicity HP 8 – Corrosive Dispose of contents/container to an approved waste disposal plant. Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

07 06 04* Other organic solvents, washing liquids and mother liquors

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

Section 14. Transport information

14.1 UN / ID 14.2 UN proper shipping name 14.3 Hazard class(es) 14.4 PG* 14.5 Env** Other information

ADR	UN1814	POTASSIUM HYDROXIDE SOLUTION	Class: 8 Labels:8 Classification Code: C5	II	NO	Limited quantities 1L Tunnel restriction See below for additional information
IMDG	UN1814	POTASSIUM HYDROXIDE SOLUTION	Class: 8 Labels:8 Classification Code: C5	II	NO	Limited quantities 1L EmS: F-A-S-B See below for additional information
IATA	UN1814	POTASSIUM HYDROXIDE SOLUTION	Class: 8 Labels:8 Classification Code: C5	II	NO	See below additional information

Additional information ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport. IMDG / See the Dangerous Goods List, section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport. IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport. This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

-

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

No data available

(*) Packing group (**) Marine pollutant

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 15. Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product. Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

-

Additional information

Not applicable

Seveso

-

Biocidal reg. no.

Not applicable

Sources

The Management of Health and Safety at Work Regulations 1999. The Health and Safety at Work etc. Act 1974 Regulations 2013. Regulation (EC) No 648/2004 on detergents as retained and amended in UK law. Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law. Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law

15.2. Chemical safety assessment

No

Protectcoat GRS4 Remover

According to EC-Regulation 2015/830

Section 16. Other information

The full text of identified uses as mentioned in section 1

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The full text of identified uses as mentioned in section 3

H290, May be corrosive to metals.
H302, Harmful if swallowed.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H318, Causes serious eye damage.
H319, Causes serious eye irritation.
H332, Harmful if inhaled.
H335, May cause respiratory irritation.
H412, Harmful to aquatic life with long lasting effects..

Additional label elements

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle. The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products. It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification. Country-language: GB-en

16.6 Additional information available from:

Protectcoat International
Postbus 36
5430 AA CUIJK
+31(0)85 0655797
www.protectcoatint.com

Last update: 01/01/2022