

AQUATHERM OFFERS NEW SOLUTIONS FOR PAINTING THE AQUATHERM PP-R PIPE SYSTEMS

Since it occurs again and again that due to architectural, optical or protective reasons freely installed pipes must be painted in colors, aquatherm now offers a specific solution matched to the aquatherm PP-R pipe systems.

The aquatherm PP-Primer provides the adhesion-promoting basis that allows the subsequent painting/varnishing of aquatherm-PP-R pipe systems with the aquatherm topcoat.

Due to the special formulation of the aquatherm PP-primer excellent adhesion properties on the PP-primer are achieved. The primer is available in two different package sizes:

- aquatherm PP-Primer 1l can Art.No. 0050230
- aquatherm PP-Primer 10l can Art.No. 0050231

The aquatherm PP-special topcoat is particularly matched with the adhesive bond with the aquatherm PP-primer. The topcoat is available by default in white or black color, but aquatherm also provides it in all RAL-colors on demand:

- aquatherm PP-special topcoat 2,5l bucket Art.No. 0050233 white
- aquatherm PP-special topcoat 2,5l bucket Art.No. 0050232 black

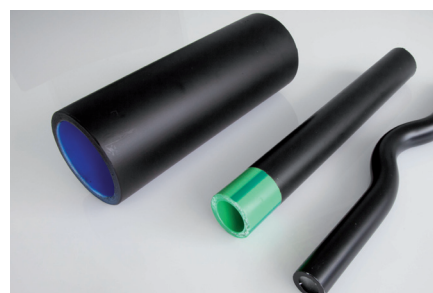
In extensive external and internal tests as well as in practical field tests, the product has been tested satisfactorily. The performed Cold-check-Test with aquatherm-PP-R-pipes was positive. There were 20 cycles each of 12 hours at temperatures of -10°C to +50°C. No changes were visible in the coating such as cracking and brittleness after the test.

Even the aquatherm black system was heated after curing of the coatings 7 days each 24 hours. The measured temperatures amounted to 42-47 °C. Here also no defects in the coating were found.

Technical information, safety and processing instructions regarding the products are enclosed.

We are delighted that we can finally, after many trials of a variety of ways, offer a compelling and unique solution for the coating of our PP-R pipe systems.

As the manual processing of primer and topcoat is very important for the persistence of the coating, we ask for your understanding that the aquatherm PP-Primer and the aquatherm PP-special topcoats are excluded from our warranty and guarantee conditions.



Painted samples



Primer, 1 liter can

Art.No. 0050230



Primer, 10 liters can

Art.No. 0050231



Topcoat, 2,5 liters paint bucket

Art.No. 0050233

**aquatherm**

state of the pipe

aquatherm PP- Primer (Art.- No. 50230/50231)

A thin-layer, solvent-based, chlorine-free bonding agent for polypropylene. Can be used on new substrates and those already exposed to the weather.

With the aquatherm PP-primer aquatherm offers a bonding agent, which enables the painting/lacquering of aquatherm PP-R pipe systems with colored or intumescent (solvent containing 2K polyurethane-based) paints.

Thus, the aquatherm green, blue, red and lilac pipes and fittings and also the aquatherm black system grids can be coated by a cup gun (nozzle size 0.5 mm) with the PP-primer effortlessly.

In extensive tests and examinations in the aquatherm's own laboratory the product has been tested satisfactorily.

The performed Cold-check-test with the aquatherm PP-R pipes were more than favorable. There were each 20 cycles of 12 hours with temperatures (differences): -10° C up to +50° C tested. No change in the coatings such as cracking and brittleness could be detected after completion of the tests.

Even the aquatherm black system was heated after the curing of the coating system for 24 hours at 7 days. The measured temperatures amounted to 42 °C – 47 °C. Also here no defects in the coating system were noted.

General data:

Thin-layer, solvent-based, chlorine-free, bonding agent for polypropylene. Can be used on new or already weather exposed Polypropylene. Special designed formulation for use with aquatherm PP Special Topcoat.

Colours: Clear white / milky	Rate of consumption / DFT: Theoretical: 8,0-12,0g / m ² at 12 microns DFT 8,0-12,0ml / m ² at 12 microns DFT	Handling: Paint, brushing, spraying	Can Sizes: 1l, 10l
Binding System: Specially modified polypropylene	Gloss: Satin gloss/ satin	Thinner: Ready to use	Temperature resistance: Max. 60°C
Surface preparation: The surface must be completely clean, dry and free from dust, grease, oil and all other substances which cause a failure of adhesion. Sanding (Grain >150) of surface is supportive. For best results allow a flame treatment according to all local and national safety and health regulations.	Object, processing and environmental conditions: Apply the primer to the prepared surface and let flash off until it is tack free. For best adhesion results heat up the primed surface to 50 – 60°C for 2 Minutes. The temperature of the surface should be above the dew point to avoid condensation. After cooling down the surface to 10-35°C apply the aquatherm PP Special Topcoat.	Drying (65% relative humidity): Forced Drying @ 60°C Dust dry: about 2 min. Drying @ RT: Dust Dry: Intervall 24 hours	Painting specification: 1x aquatherm PP primer max. 20 microns DFT (closed film) 1-2x aquatherm PP special topcoat (See TI aquatherm PP special topcoat) In case of overcoating by weight adhesion failures may appear. These instructions do not release the purchaser/ applicator of these products from the responsibility to determine the suitability of the product in consideration of the project characteristics.
Spray:	Air Pressure: Injection pressure: 2-3 bar Nozzle size: 0,2-0,5mm Coats: 1 Thinner: no	Airless: Atomizing pressure: 3-4bar Nozzle size: 0.007 inches max. Coats: 1 Thinner: no	Coverage: theoretically) at 12 microns DFT Approximately 32,0m ² / kg Approximately 32,0m ² / l
Density: 1,000g/cm ³	Viscosity (+20°C) : 13 sec. DIN 4 viscosimeter	Solid content by weight 3,0%	VOC: 840g/l
Storage: Cool and dry in original sealed containers for max. 6 months	Cleaner: Butylacetate	Flash point: 25°C Ignition temperature: 450°C	Notes: For detailed information, please refer to the Safety Data Sheet (MSDS)

Warranty: Product is not subject to the general aquatherm warranty conditions.

Safety: Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult the Safety Data Sheets and follow all local or national safety regulations. All suggestions and application instructions are based on our latest technical experience. Due to the wide variety of individual conditions, we cannot be held responsible for their content. Always use PSA and refer to all regulations.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

Article No.: 50230/50231
Print date: 16.06.2015
Version:

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

1.1. Product identifiers

Article No. (manufacturer/supplier) LPB-3PP-001GR - 50230/50231
Identification of the substance or mixture Aquatherm PP Primer

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

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/downstream user/distributor):
aquatherm

1.4.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs through prolonged or repeated exposure.

Classification according to Directive 67/548/EEC or 1999/45/EC

This mixture is classified as hazardous according to 1999/45/EC.

R10		Flammable
Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
Xi; R38	Irritant	Irritating to skin.

2.2. Label elements

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

Hazard pictograms



Warning

Hazard statements

H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapour.
P271	Use only outdoors or in a well-ventilated area.
P370 + P378	In case of fire: Use Extinguishing powder or sand to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to industrial incineration plant.

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contains:

xylene

Supplemental Hazard information (EU)

Labelling (67/548/EEC or 1999/45/EC)



Xn Harmful

Hazard statements

10 Flammable
20/21 Harmful by inhalation and in contact with skin.
38 Irritating to skin.

Precautionary statements

2 Keep out of reach of children.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
36/37 Wear suitable protective clothing and gloves.
46 If swallowed, seek medical advice immediately and show this container or label.
51 Use only in well-ventilated areas.

contains:

xylene, mixture of isomers

Special provisions concerning the labelling of certain mixtures

2.3. Other hazards

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Product description / chemical characterization

Description

Hazardous ingredients

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

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32-xxxx xylene Flam. Liq. 3 H226 / Acute Tox. 4 H312 / Acute Tox. 4 H332 / Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Asp. Tox. 1 H304 / STOT RE 2 H373 / STOT SE 3 H335	50 - 100
202-849-4 100-41-4 601-023-00-4	01-2119489370-35-xxxx ethylbenzene Flam. Liq. 2 H225 / Acute Tox. 4 H332 / STOT RE 2 H373 / Asp. Tox. 1 H304	20 - 25

Classification according to Directive 67/548/EEC or 1999/45/EC

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
215-535-7 1330-20-7 601-022-00-9	xylene, mixture of isomers R10 / Xn; R20/21 / Xi; R38	50 - 100

Additional information

Full text of R-phrases: see section 16.
Full text of H-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) No 453/2010

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In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours. See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

SECTION 7: Handling and storage

Due to the content of organic solvents in the preparation:

7.1. Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

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Precautions against fire and explosion:

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRBS 2153)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

DNEL:

xylene

INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

DNEL acute dermal, short-term (local), Workers: 174 mg/kg

DNEL long-term dermal (systemic), Workers: 180 mg/kg

DNEL acute inhalative (systemic), Workers: 289 mg/m³

DNEL long-term inhalative (systemic), Workers: 77 mg/m³

PNEC:

xylene

INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

PNEC aquatic, freshwater: 0,327 mg/L

PNEC aquatic, marine water: 0,327 mg/L

PNEC aquatic, intermittent release: 0,327 mg/L

PNEC sediment, freshwater: 12,46 mg/kg

PNEC sediment, marine water: 12,46 mg/kg

PNEC, Soil: 2,31 mg/kg

PNEC sewage treatment plant (STP): 6,58 mg/L

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

For prolonged or repeated handling the following glove material must be used: polymeric diphenylmethane diisocyanate

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

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Protective clothing

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state

Colour colourless
Odour redolent solvent

Safety relevant basis data	Unit	Method	Remark
Flash point (°C):	25 °C		
Ignition temperature in °C:	450 °C		
Lower explosion limit:	1,7 Vol-%		
Upper explosion limit:	7,5 Vol-%		
Vapour pressure at 20 °C:	1,00 mbar		
Density at 20 °C:	1,000 g/cm³		
Water solubility (g/L):	Immiscible		
pH at 20 °C:	n.b.		
Viscosity at 20 °C:	13 s 4 mm	DIN 53211	
Solvent separation test (%):	< 3 %	ADR/RID	
Solid content (%):	3 Wt %		
solvent content:			
Organic solvents:	98 Wt %		
Water:	0 Wt %		

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

No data on preparation itself available.

11.1. Information on toxicological effects

Acute toxicity

ethylbenzene

oral, LD50, Rat: 3500 mg/kg

dermal, LD50, Rabbit: 5000 mg/kg

xylene

dermal, LD50, Rabbit: 1100 mg/kg

inhalative (vapours), LC50, Rat: 11 mg/L (4 h)

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Irritant and corrosive effects

xylene

Skin (4 h)

Causes skin irritation.

Sensitisation

Toxicological data are not available.

Specific target organ toxicity

xylene

Specific target organ toxicity (single exposure), Irritation:

May cause respiratory irritation.

Specific target organ toxicity (repeated exposure):

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

xylene

Aspiration hazard

May be fatal if swallowed and enters airways.

Practical experience/human evidence

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

There is no information available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and has not been classified.

SECTION 12: Ecological information

overall evaluation

There is no information available on the preparation itself.

Do not allow to enter into surface water or drains.

12.1. Toxicity

ethylbenzene

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 4,2 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 1,8 mg/L (48 h)

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 4,6 mg/L (72 h)

xylene

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 19,6 mg/L (96 h)

Method: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): > 1 mg/L (48 h)

Method: OECD 202

Algae toxicity, IC50, Algae: 2,2 mg/L (72 h)

Bacteria toxicity, EC50, Activated sludge: 1000 mg/L (15 h)

Long-term Ecotoxicity

Toxicological data are not available.

12.2. Persistence and degradability

ethylbenzene

Biodegradation: 70 - 80 %

Readily biodegradable (according to OECD criteria).

xylene

Biodegradation: > 60 % (28 d)

Method: OECD 301 F

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Readily biodegradable (according to OECD criteria).

12.3. Bioaccumulative potential

Toxicological data are not available.

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product

Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080111 waste paint and varnish containing organic solvents or
other dangerous substances

packaging

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1. UN number

1307

14.2. UN proper shipping name

Land transport (ADR/RID):

Xylenes

Sea transport (IMDG):

XYLENES

Air transport (ICAO-TI / IATA-DGR):

Xylenes

14.3. Transport hazard class(es)

3

14.4. Packing group

III

14.5. Environmental hazards

Land transport (ADR/RID)

Marine pollutant

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Additional information

Land transport (ADR/RID)

tunnel restriction code

D/E

Sea transport (IMDG)

EmS-No.

F-E, S-D

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

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SECTION 15: Regulatory information

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

EU legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2: 0

VOC-value (in g/L) ASTM D 2369: 0

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

SECTION 16: Other information

Relevant R-and H-phrases (Number and full text):

Flam. Liq. 3 / H226	flammable liquids	Flammable liquid and vapour.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Asp. Tox. 1 / H304	Aspiration hazard	May be fatal if swallowed and enters airways.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Flam. Liq. 2 / H225	flammable liquids	Highly flammable liquid and vapour.
R10		Flammable
Xn; R20/21	Harmful	Harmful by inhalation and in contact with skin.
Xi; R38	Irritant	Irritating to skin.

Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

Additional information

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.



aquatherm

state of the pipe



aquatherm PP- Special-Topcoat

(Art.- No. 50232/50233)

Aqueous silk-gloss topcoat for polypropylene and polyethylene coordinated on the aquatherm PP-primer. Can be used in the system on new substrates and those already exposed to the weather.

General data:

Waterborne Topcoat for application on pretreated surfaces (with aquatherm pp primer only). Available in High-, Semi- and Satin Gloss with good weathering properties. Specially designed formulation for good weathering and adhesion results.

Colours: white, black, RAL on request	Rate of consumption / DFT: Theoretical: 121g/m ² at 50µm DFT 120ml/m ² at 50µm DFT	Handling: roller, brushing, spraying	Can size: 2,5l
Binding System: acrylate emulsion	Gloss: High Gloss Semi Gloss Satin Gloss	Thinner: Water	Temperature resistance: Max. 60 °C Short-term(change of color can occur)
Surface preparation: surface must be properly pretreated with aquatherm PP Primer (see technical information of aquatherm pp primer)	Object and ambient conditions: Air and object temperature must be in the range of +10°C up to +30°C. Humidity: max. 85% Surface temperature must be min. 3 °C above the dew point.	Drying times under standard conditions (+ 20 ° C 65% relative humidity): Dust dry: about 1 hour Recoat: min. 6 Hours Fully Dry: about 48 hours Forced drying at 50 °C for 10-15 minutes possible.	Painting specification: 1x aquatherm PP Primer (See TI)max.20 microns DFT in a closed film. 1-2x aquatherm PP special topcoat For two layers a color change is supposed.
Spray:	Air Pressure: Injection pressure: 3-4 bar Nozzle size: 1,2-1,5mm Coats: 1 Dilution: max.10% water	Airless: Atomizing pressure: 3-4bar Nozzle size: 0,013- 0,018 inch Coats: 1 Dilution: max. 5% water	Coverage: (theoretically) at 50 microns DFT Approximately 8,28m ² / kg Approximately 10,60m ² / l
Density: 1,28g/cm ³	Viscosity (+20°C) : shear thinning	Solid Contents (Volume%) 53%	VOC: 83g/l
Storage: Cool and dry in original sealed containers for max. 12 months	Cleaner: Water	Comment: Please note our additional technical information for polypropylene.	Notes: For detailed information, please refer to the Safety Data Sheet (MSDS)

Warranty: Product is not subject to the general aquatherm warranty conditions.

Safety: Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult the Safety Data Sheets and follow all local or national safety regulations. All suggestions and application instructions are based on our latest technical experience. Due to the wide variety of individual conditions, we cannot be held responsible for their content. Always use PSA and refer to all regulations.

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

1.1. Product identifiers

Article No. (manufacturer/supplier) SDB-V1155 - 50233/50232
Identification of the substance or mixture Aquatherm PP Special Topcoat

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

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/downstream user/distributor):
aquatherm

1.4.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

2.2. Label elements

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

Hazard pictograms

Hazard statements

Precautionary statements

contains:

Supplemental Hazard information (EU)

EUH208 Contains 1,2-benzisothiazol-3(2H)-one; 2,4,7,9-Tetramethyl-5-decyne-4,7-diol. May produce an allergic reaction.
EUH210 Safety data sheet available on request.

2.3. Other hazards

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Product description / chemical characterization

Description acrylate polymer lacquer, rafiablen mit Wasser

Hazardous ingredients

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

EC No.	REACH No.	Wt %
CAS No.	Chemical name	Remark
INDEX No.	classification:	

Additional information

Full text of classification: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

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Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

After ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

Extinguishing media which must not be used for safety reasons:

strong water jet

5.2. Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

5.3. Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate affected area. Do not breathe vapours. See protective measures under point 7 and 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

6.4. Reference to other sections

Observe protective provisions (see chapter 7 and 8).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

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Further information on storage conditions

Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

8.2. Exposure controls

Provide good ventilation. This can be achieved with local or room suction.

Occupational exposure controls

Respiratory protection

Not applicable.

Hand protection

For prolonged or repeated handling the following glove material must be used: NR (natural rubber, natural latex)

Thickness of the glove material 0,4 mm Breakthrough time (maximum wearing time) 30 min

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin: Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye protection

Wear closely fitting protective glasses in case of splashes.

Protective clothing

Wear suitable protective clothing and gloves.

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical state	liquid
Colour	refer to label
Odour	slightly like acrylate

Safety relevant basis data	Unit	Method	Remark
Flash point:	Not applicable		
Ignition temperature in °C:	190 °C		
Lower explosion limit:	0,7 Vol-%		
Upper explosion limit:	33,6 Vol-%		
Vapour pressure at 20 °C:	9,07 mbar		
Density at 20 °C:	1,280 g/cm³		
Water solubility (g/L):	partially miscible		
pH at 20 °C:	8,5 +/- 0,5		
Viscosity at °C:	strukturviskos		
Solvent separation test (%):	< 3 %	ADR/RID	
Solid content (%):	53 Wt %		
solvent content:			
Organic solvents:	7 Wt %		
Water:	38 Wt %		

9.2. Other information

SECTION 10: Stability and reactivity

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10.1. Reactivity

10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4. Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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

No data on preparation itself available.

11.1. Information on toxicological effects

Acute toxicity

Toxicological data are not available.

skin corrosion/irritation; Serious eye damage/eye irritation

Toxicological data are not available.

Respiratory or skin sensitisation

Toxicological data are not available.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Toxicological data are not available.

Specific target organ toxicity

Toxicological data are not available.

Aspiration hazard

Toxicological data are not available.

Practical experience/human evidence

Other observations:

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself .

SECTION 12: Ecological information

overall evaluation

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

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

12.1. Toxicity

No information available.

Long-term Ecotoxicity

Toxicological data are not available.

12.2. Persistence and degradability

Toxicological data are not available.

12.3. Bioaccumulative potential

Toxicological data are not available.

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Bioconcentration factor (BCF)

Toxicological data are not available.

12.4. Mobility in soil

Toxicological data are not available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal / Product

Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080112 waste paint and varnish other than those mentioned in 080111

packaging

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

This mixture is not classified as dangerous according to international transport regulations (ADR/RID, IMDG, ICAO/IATA).

No dangerous good in sense of this transport regulation.

14.1. UN number

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

Land transport (ADR/RID)

Marine pollutant

14.6. Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

Additional information

Land transport (ADR/RID)

tunnel restriction code

Sea transport (IMDG)

EmS-No.

14.7.

not applicable

SECTION 15: Regulatory information

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

EU legislation

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).

VOC-value (in g/L) ISO 11890-2:

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VOC-value (in g/L) ASTM D 2369: 162

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

Other regulations, restrictions and prohibition regulations

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

SECTION 16: Other information

Full text of classification in section 3:

Abbreviations and acronyms

Not contained in the list of poisonous chemicals and precursor of the agreement governing chemical weapons (CWC)

Additional information

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

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

Annex

At present, data / information on exposure scenarios are not available, so that an evaluation of the preparation cannot yet be made.