SAFETY DATA SHEET
ViterShield 178/178M Clear

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

1.1. Product identifier

Product name ViterShield 178/178M Clear

Product number 6400003

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

Identified uses Hardener.

1.3. Details of the supplier of the safety data sheet

Supplier

Axalta Coating Systems West Bromwich UK Ltd
Kelvin Way
West Bromwich
West Midlands B70 7JZ
t: +44 (0)121 525 5665
f: +44 (0)121 553 2787
info-westbromwich@axaltacs.com

1.4. Emergency telephone number

Emergency telephone +44 121 524 2245 (not 24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226

Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens. 1 - H317 STOT SE 3 - H335 STOT RE 2 - H373 Asp. Tox. 1 - H304

Environmental hazards Not Classified

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

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Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take precautionary measures against static discharge.
P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314 Get medical advice/ attention if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog 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 in accordance with national regulations.

Contains

xylene, 2,4,6-tris(dimethylaminomethyl)phenol, ethylbenzene, BIS[(DIMETHYLAMINO) METHYL]PHENOL, 3,6-diazaoctanethylenediamin

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

xylene **10-30%**

CAS number: 1330-20-7 EC number: 215-535-7 REACH registration number: 01-2119488216-32-XXXX

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315

benzyl alcohol **10-30%**

CAS number: 100-51-6 EC number: 202-859-9 REACH registration number: 01-2119492630-38-XXXX

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Eye Irrit. 2 - H319

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2,4,6-tris(dimethylaminomethyl)phenol		**10-30%**
CAS number: 90-72-2	EC number: 202-013-9	REACH registration number: 01-2119560597-27-XXXX

Classification
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

ethylbenzene		**1-5%**
CAS number: 100-41-4	EC number: 202-849-4	REACH registration number: 01-2119489370-35-XXXX

Classification
Flam. Liq. 2 - H225
Acute Tox. 4 - H332
Eye Irrit. 2 - H319
STOT RE 2 - H373
Asp. Tox. 1 - H304
Aquatic Chronic 3 - H412

BIS[(DIMETHYLAMINO) METHYL]PHENOL		**1-5%**
CAS number: 71074-89-0	EC number: 275-162-0	

Classification
Skin Corr. 1B - H314
Eye Dam. 1 - H318

3,6-diazaoctanethylenediamin		**1-5%**
CAS number: 112-24-3	EC number: 203-950-6	

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information If in doubt, get medical attention promptly. Never give anything by mouth to an unconscious person.

Inhalation Move affected person to fresh air at once. If breathing stops, provide artificial respiration.

Ingestion Get medical attention immediately. Keep affected person warm and at rest. Do not induce vomiting.

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Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Do not use organic solvents.

Eye contact Rinse immediately with plenty of water. Continue to rinse for at least 10 minutes.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves.

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

Inhalation Harmful if inhaled. May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Prolonged or repeated exposure may cause the following adverse effects: Coughing. May cause nausea, headache, dizziness and intoxication. Delayed, often serious, breathing problems.

Ingestion Pneumonia may be the result if vomited material containing solvents reaches the lungs. May be fatal if swallowed and enters airways. Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. May cause stomach pain or vomiting.

Skin contact Causes skin irritation. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation. Prolonged or repeated exposure may cause the following adverse effects: Pain or irritation. Profuse watering of the eyes. Redness.

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

Notes for the doctor Treat symptomatically.

Specific treatments No specific chemical antidote is known to be required after exposure to this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards The product is flammable. Fire-water run-off in sewers may create fire or explosion hazard. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Control run-off water by containing and keeping it out of sewers and watercourses.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Acrid smoke or fumes. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting In case of fire: Evacuate area. No action shall be taken without appropriate training or involving any personal risk. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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For non-emergency personnel No action shall be taken without appropriate training or involving any personal risk. Evacuate area. Keep unnecessary and unprotected personnel away from the spillage. Do not touch or walk into spilled material. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not breathe gas, fume, vapours or spray. Provide adequate ventilation. If ventilation is inadequate, suitable respiratory protection must be worn. Use protective equipment appropriate for surrounding materials.

For emergency responders Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Contain spillage with sand, earth or other suitable non-combustible material.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Small Spillages: Stop leak if safe to do so. Move containers from spillage area. Absorb spillage with non-combustible, absorbent material. Place waste in labelled, sealed containers. Large Spillages: Eliminate all ignition sources if safe to do so. Stop leak if safe to do so. Move containers from spillage area. No smoking, sparks, flames or other sources of ignition near spillage. Avoid the spillage or runoff entering drains, sewers or watercourses. Dispose of waste via a licensed waste disposal contractor. The contaminated absorbent may pose the same hazard as the spilled material.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Note: The information in this section contains generic advise and guidance.

Usage precautions For professional users only. Eliminate all sources of ignition. Use only in well-ventilated areas. Wear protective clothing as described in Section 8 of this safety data sheet. Earth container and transfer equipment to eliminate sparks from static electricity. For the greatest protection, clothing should include anti-static overalls, boots and gloves. Use only non-sparking tools. Keep away from heat, sparks and open flame. Avoid inhalation of vapours/spray and contact with skin and eyes. Inhalation of dust during cutting, grinding or sanding operations involving this product may cause irritation of the respiratory tract. Do not empty into drains.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Good personal hygiene procedures should be implemented. Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and protective equipment before entering eating areas. Change work clothing daily before leaving workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store at temperatures between 5°C and 25°C. Store in accordance with national regulations. Store in tightly-closed, original container. Avoid contact with oxidising agents. Avoid contact with acids and alkalis. Read label before use. Avoid exposure to high temperatures or direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly sealed when not in use.

Storage class Flammable liquid storage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

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8.1. Control parameters

Occupational exposure limits

xylene

Long-term exposure limit (8-hour TWA): WEL 50 ppm 220 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 441 mg/m³
Sk

ethylbenzene

Long-term exposure limit (8-hour TWA): WEL 100 ppm 441 mg/m³
Short-term exposure limit (15-minute): WEL 125 ppm 552 mg/m³
Sk

WEL = Workplace Exposure Limit
Sk = Can be absorbed through the skin.

xylene (CAS: 1330-20-7)

DNEL	Workers - Inhalation; Long term systemic effects: 77 mg/m³ Workers - Inhalation; Short term systemic effects: 289 mg/m³ Workers - Inhalation; Short term local effects: 289 mg/m³
PNEC	- Fresh water; 0.327 mg/l - Marine water; 0.327 mg/l - Intermittent release; 0.327 mg/l - STP; 6.58 mg/l - Sediment (Freshwater); 12.46 mg/kg - Sediment (Marinewater); 12.46 mg/kg - Soil; 2.31 mg/kg

benzyl alcohol (CAS: 100-51-6)

DNEL	Industry - Dermal; Short term systemic effects: 47 mg/kg Industry - Inhalation; Short term systemic effects: 450 mg/m³ Industry - Dermal; Long term systemic effects: 9.5 mg/kg/day Industry - Inhalation; Long term systemic effects: 90 mg/m³

2,4,6-tris(dimethylaminomethyl)phenol (CAS: 90-72-2)

PNEC	- Fresh water; 0.084 mg/l - Marine water; 0.0084 mg/l - Intermittent release; 0.84 mg/l - STP; 0.2 mg/l

ethylbenzene (CAS: 100-41-4)

DNEL	Workers - Inhalation; Long term systemic effects: 77 mg/m³ Workers - Inhalation; Short term local effects: 293 mg/m³ Workers - Dermal; Long term systemic effects: 180 mg/kg/day

8.2. Exposure controls

Protective equipment

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Appropriate engineering controls	As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist. Use explosion-proof ventilating equipment.
Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Hand protection	To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact. Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist. For the greatest protection, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for information on material and design requirements and test methods.
Hygiene measures	Good personal hygiene procedures should be implemented. Wash hands thoroughly after handling. Wash promptly with soap and water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Remove contaminated clothing and protective equipment before entering eating areas. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
Respiratory protection	Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels. Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Colourless to pale yellow.
Odour	Characteristic.
Flash point	21 - 32°C
Vapour density	Heavier than air.
Relative density	0.90 - 1.00
Solubility(ies)	Immiscible with water.

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No test data specifically related to reactivity available for this product or its ingredients.

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10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition. Avoid the accumulation of vapours in low or confined areas.

10.5. Incompatible materials

Materials to avoid Avoid contact with the following materials: Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Acute toxicity - oral

ATE oral (mg/kg) 5,537.2

Acute toxicity - dermal

ATE dermal (mg/kg) 65,870.24

Acute toxicity - inhalation

ATE inhalation (gases ppm) 21,113.97

SECTION 12: Ecological Information

12.1. Toxicity

12.2. Persistence and degradability

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Do not empty into drains.

Waste class 08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned.
For further information, contact your local waste authority.

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SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID)	1263
UN No. (IMDG)	1263
UN No. (ICAO)	1263
UN No. (ADN)	1263

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	PAINT RELATED MATERIAL
Proper shipping name (IMDG)	PAINT RELATED MATERIAL
Proper shipping name (ICAO)	PAINT RELATED MATERIAL
Proper shipping name (ADN)	PAINT RELATED MATERIAL

14.3. Transport hazard class(es)

ADR/RID class	3
ADR/RID classification code	F1
ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels

14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ADN packing group	III
ICAO packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-E
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30

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Tunnel restriction code (D/E)

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

SECTION 15: Regulatory information

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

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Health and environmental listings None of the ingredients are listed.

Authorisations (Title VII Regulation 1907/2006) No specific authorisations are known for this product.

Restrictions (Title VIII Regulation 1907/2006) No specific restrictions on use are known for this product.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

Revision date 17/10/2019

Revision 3

Supersedes date 05/03/2018

SDS number 4971

Hazard statements in full
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful 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.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Hearing organs) through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.

Description Two Pack Epoxy High Solids Zinc Phosphate & MIO Primer

Component Hardener

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Mix Ratio	Mix 1:5 By Volume with Base 178/178M
Shelf life	2 year
EU Dir 2	