AQUIMAX FLAMESHIELD BARRIER COAT

HEALTH AND SAFETY DATA SHEET
Revision nr.9
Dated 04/08/2025
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Replaced revision :8 (Dated 29/1/2019)
According to Annex II to REACH - Regulation 2015/830

1. PRODUCT AND COMPANY IDENTIFICATION

1.01 Product Identifier:	Aquimax Flamesheild Barrier Coat AFS3600
1.02 Manufacturer/Supplier:	Ultrimax Coatings Ltd
1.03 Address	Shaw Lane Industrial Estate, Ogden Road, Doncaster, DN2 4SE
1.04 Contact	www.ultrimaxstore.com
1.05 Phone Number	01302 856666
1.6 Email Address	sales@ultrimaxstore.com
1.7 Emergency Phone Number	01302 856666

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2015/830.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Hazard Identification

Hazard classification and indication:

Flammable liquid, category 2	H2 25	Highly flammable liquid and vapour.
Reproductive toxicity, category 2	H361d	Suspected of damaging the unborn child.
Aspiration hazard, category 1	H304	May be fatal if swallowed and enters air ways.
Specific target organ toxicity - repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
Eye irritation, category 2	H319	Causes serious eye irritation.
Skin irritation, category 2	H315	Causes skin irritation.
Specific target organ toxicity - single exposure, category 3	H336	May cause drowsiness or dizziness.

2.2 Label Elements
Hazard labelling pursuant to EC Regulation 12 72/2 008 (CLP) and subsequent amendments and supplements.

Hazard pictograms:

Signal words: Danger

Hazard statements:
H225: Highly flammable liquid and vapour.
H361d: Suspected of damaging the unborn child.
H304: May be fatal if swallowed and enters airways.
H373: May cause damage to organs through prolonged or repeated exposure.
H319: Causes serious eye irritation.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.

Precautionary statements:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P331: Do NOT induce vomiting.
P280: Wear protective gloves/ protective clothing / eye protection / face protection.
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P370+P378: In case of fire: use carbon dioxide, foam, powder and water spray to extinguish.
P261: Avoid breathing dust/ fume I gas I mist/ vapours / spray.

Contains: TOLUENE BUTANONE, N-BUTYL ACETATE, XYLENE (MIXTURE OF ISOMERS)

2.3. Other hazards: On the basis of available data, the product does not contain any PBT or vPvB in percentage ⩾ than 0, 1 %.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures
Contains:

Identification	x= Cone.%	Classification 1272/2008 (CLP)
BUTANONE		
CAS: 78-93-3	35 ⩽ X < 50	Flam. Liq. 2 H225, Eye lrrit. 2 H319, STOT SE 3 H336, EUH066
EC: 201-159-0		
INDEX: 606-002-00-3		
Reg. no.: 01-2119457290-43-XXXX		

TOLUENE

CAS: 108-88-3	30 ⩽ x< 35	Flam. Liq. 2 H225, Repr. 2 H361d, Asp. Tox. 1 H304, STOT RE 2 H373, Skin lrrit. 2 H315, STOT SE 3 H336
EC: 203-625-9		
INDEX: 601-021-00-3		
Reg. no.: 01-2119471310-51-XXXX		

N-BUTYL ACETATE

CAS: 123-86-4	5 ⩽ x < 10	Flam. Liq. 3 H226, STOT SE 3 H336, EUH066
EC: 204-658-1		
INDEX: 607-025-00-1		
Reg. no.: 01- 2119485493-29-XXXX		

XYLENE (MIXTURE OF ISOMERS)

CAS 1330-20-7 2,5 ≤ x < 5 — Flam. Liq. 3 H226, Acute Tox. 4 H312, Acute Tox. 4 H332, Asp. Tox. 1 H304, STOT RE 2 H373, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H335, Aquatic Chronic 3 H412, Classification note/notes according to Annex VI to the CLP Regulation: C

EC: 215-535-7

INDEX: 601-022-00-9

Reg. no.: 01-2119488216-32-XXXX

2-METHOXY-1-METHYLETHYL ACETATE

CAS: 108-65-6 2,5 ≤ x < 5 EC 203-603-9 — Flam. Liq. 3 H226, STOT SE 3 H336
INDEX 607-195-00-7
Reg. no. 01-2119475791-29-XXXX

ETHYL ACETATE

CAS 141-78-6 0 ≤ x<0,15 EC 205-500-4 — Flam. Liq. 2 H225, Eye Irrit. 2 H319, STOT SE 3 H336, EUH066
INDEX 607-022-00-5
Reg. no. 01-2119475103-46-XXXX

The full wording of hazard (H) phrases is given in section 16 of the sheet.

4. FIRST AID MEASURES

4.1. Description of first aid measures

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.
SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention immediately. Wash contaminated clothing before using it again.
INHALATION: Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.
INGESTION: Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

Specific information on symptoms and effects caused by the product are unknown.

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

Information not available

5. FIREFIGHTING MEASURES

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT
Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.
UNSUITABLE EXTINGUISHING EQUIPMENT
Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE
Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

Send away individuals who are not suitably equipped. Use explosion-proof equipment. Eliminate all sources of ignition (cigarettes, flames, sparks, etc.) from the leakage site.

6.2. Environmental precautions

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

7. HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s)

Information not available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Regulatory References:

GBR United Kingdom — EH40/2005 Workplace exposure limits (Third edition, published 2018)

EU OEL EU — Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directiv (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.

XYLENE (MIXTURE OF ISOMERS)

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	220	50	441	100	SKIN
OEL	EU	221	50	442	100	SKIN

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	0,327	mg/l
Normal value in marine water	0,327	mg/l
Normal value for fresh water sediment	12,46	mg/kg
Normal value for marine water sediment	12,46	mg/kg
Normal value for water, intermittent release	0,327	mg/l
Normal value of STP microorganisms	6,58	mg/l
Normal value for the terrestrial compartment	2,31	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral				12,5 mg/kg/d				
Inhalation	260 mg/ m3	260 mg/m3	65,3 mg/ m3 VND	65,3 mg/ m3	442 mg/ m3	442 mg/ m3	221 mg/m3 VND	221 mg/m3 212 mg/kg
Skin				125 mg/kg				

AQUIMAX FLAMESHIELD BARRIER COAT

2-METHOXY-1-METHYLETHYL ACETATE

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	274	50	548	100	SKIN
OEL	EU	275	50	550	100	SKIN

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	0,635	mg/l
Normal value in marine water	0,0635	mg/l
Normal value for fresh water sediment	3,29	mg/kg
Normal value for marine water sediment	0,329	mg/kg
Normal value for water, intermittent release	6,35	mg/l
Normal value of STP microorganisms	100	mg/l
Normal value for the terrestrial compartment	0,29	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral			500 mg/kg bw/d	36 mg/kg bw/d				
Inhalation	NPI	33 mg/mg	NPI	33 mg/m3	550 mg/ m3	NPI	NPI	275 mg/m3
Skin			NPI	320 mg/ kg/d			NPI	796 mg/kg/ bw/d

Ultrimax Coatings Ltd
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Ogden Road
Doncaster DN2 4SE

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TOLUENE

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	191	50	384	100	SKIN
OEL	EU	192	50	384	100	SKIN

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	0,68	mg/l
Normal value in marine water	0,68	mg/l
Normal value for fresh water sediment	16,39	mg/kg
Normal value for marine water sediment	16,39	mg/kg
Normal value for water, intermittent release	0,68	mg/l
Normal value of STP microorganisms	13,61	mg/l
Normal value for the terrestrial compartment	2,89	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of expo-sure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral			VND	8,13 mg/ kg				
Inhalation	226 mg/ m3	226 mg/m3	56,5 mg/ m3	56,5 mg/ m3	384 mg/ m3	384 mg/ m3	192 mg/m3	192 mg/m3
Skin			VND	226 mg/kg			VND	384 mg/m3

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BUTANONE

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	600	200	899	300	SKIN
OEL	EU	600	200	900	300	

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	55,8	mg/l
Normal value in marine water	55,8	mg/l
Normal value for fresh water sediment	284,74	mg/kg
Normal value for marine water sediment	284,7	mg/kg
Normal value for water, intermittent release	55,8	mg/l
Normal value of STP microorganisms	1000	mg/l
Normal value for the terrestrial compartment	22,5	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral				31mg/kg bw/d				
Inhalation			VND	106 mg/ m3			VND	600 mg/m3
Skin				412 mg/kg bw/d			VND	1161 mg/kg bw/d

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ETHYL ACETATE

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	734	200	1468	400	
OEL	EU	734	200	1468	400	

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	0,24	mg/l
Normal value in marine water	0,024	mg/l
Normal value for fresh water sediment	1,15	mg/kg
Normal value for marine water sediment	1,65	mg/kg
Normal value for water, intermittent release	650	mg/l
Normal value of STP microorganisms	200	mg/l
Normal value for the terrestrial compartment	0,148	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral				4'5 mg/kg bw/d				
Inhalation	734 mg/ m3	734 mg/m3	367 mg/ m3	367 mg/ m3	1468 mg/ m3	1468 mg/ m3	734 mg/m3	734 mg/m3
Skin				37 mg/kg bw/d			37 mg/kg bw/d	63 mg/kg bw/d

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N-BUTYL ACETATE

Threshold Limit Value						
Type	Country	TWA/8h mg/m3	ppm	STEL/15min mg/m4	ppm	Remarks/ Observations
WEL	GBR	724	150	966	200	
OEL	EU	241	50	723	150	

PREDICTED NO-EFFECT CONCENTRATION - PNEC		
Normal value in fresh water	0,18	mg/l
Normal value in marine water	0,018	mg/l
Normal value for fresh water sediment	0,981	mg/kg
Normal value for marine water sediment	0,0981	mg/kg
Normal value for water, intermittent release	0,36	mg/l
Normal value of STP microorganisms	35,6	mg/l
Normal value for the terrestrial compartment	0,0903	mg/kg

Health - Derived no-effect level - DNEL / DMEL								
	Effects on consumers				Effects on workers			
Route of exposure	Acute Local	Acute Systemic	Chronic local	Chronic Systemic	Acute Local	Acute Systemic	Chonic Local	Chronic Systemic
Oral		2 mg/kg/d		2 mg/kg/d				
Inhalation	300 mg/m3	300 mg/m3	35,7 mg/m3	35,7 mg/m3	600 mg/m3	600 mg/m3	300 mg/m3	300 mg/m3
Skin		6 mg/kg/d	VND	6 mg/kg/d		11 mg/kg/d		11 mg/kg/d

Legend:
(C) = CEILING ; INHAL = Inhalable Fraction ; RESP= Respirable Fraction ; THORA= Thoracic Fraction.
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

8.2. Exposure controls

Take the normal precautions for handling chemicals and apply an adequate standard of workplace hygiene. Users must assess the risks in their workplace and adopt:
-Primary collective protective measures such as adequate natural ventilation and local extraction
-Personal protective equipment to manage the combination of residual risks
Personal protective equipment varies according to the possible exposure and hazardousness of the working conditions, so the final choice depends on the risk assessment.

HAND PROTECTION
Use category III chemical resistant gloves according to the EN 374 standard
Brief contact (splash protection) - non-exhaustive list
Suitable material: NITRILE RUBBER (NBR)
Glove thickness: greater than 0.4 mm
Breakthrough time: from 30 to 60 minutes
Breakthrough index: at least 2

The gloves must be replaced if there are signs of deterioration. In any case, users must assess the risks to determine the most suitable type of glove for the conditions of use

SKIN PROTECTION
Wear antistatic work clothes and safety footwear that complies with EN ISO 20344.

EYE PROTECTION
Wear safety mask glasses (EN 166).

RESPIRATORY PROTECTION
Use a mask with EN140 and/or EN136 approval, with a type A filter (for organic vapours with boiling points> 65°C; EN 14387) of a class (1, 2, 3) to be chosen according to the risk assessment in the workplace.

ENVIRONMENTAL EXPOSURE CONTROLS
The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Properties	Value	Information
Appearance	Liquid	
Colour	Colourless	
Odour	Solvent	
Odour Threshold	Not Available	
pH	Not Available	
Melting Point/Freezing Point	Not Available	
Initial boiling point	>65 °C	
Boiling range	Not available	
Flash point	-9 °C	
Evaporation Rate	Not available	
Flammability of solids and gases	Not applicable	
Lower inflammability limit	Not available	
Upper inflammability limit	Not available	
Lower explosive limit	Not available	
Upper explosive limit	Not available	
Vapour pressure	Not available	
Vapour density	Not available	

9.1. cont

Properties	Value	Information
Relative Density	0,89	
Solubility	soluble in organic solvents	
Partition coefficient: n-octanol/water	Not Available	
Auto-ignition temperature	Not Available	
Decomposition temperature	Not Available	
Viscosity	Not Available	
Explosive properties	Not applicable	
Oxidising properties	Not applicable	

9.2. Other information

Total solids (250°C / 482° F)	17,01%	
VOC (Directive 2010/75/EC)	82,51 % - 734,32	g/litre
VOC (volatile carbon):	62,65 % - 557,57	g/litre

SECTION 10. PHYSICAL AND CHEMICAL PROPERTIES

10.1 Reactivty

There are no particular risks of reaction with other substances in normal conditions of use.

2-METHOXY-1-METHYLETHYL ACETATE
Stable in normal conditions of use and storage.
With the air it may slowly develop peroxides that explode with an increase in temperature.

TOLUENE
Avoid exposure to: light.
BUTANONE
Reacts with: light metals.strong oxidants.Attacks various types of plastic materials.Decomposes under the effect of heat. ETHYL ACETATE

Decomposes slowly into acetic acid and ethanol under the effect of light, air and water.

N-BUTYL ACETATE
Decomposes on contact with: water.

10.2. Chemical stability
The product is stable in normal conditions of use and storage.
10.3. Possibility of hazardous reactions
The vapours may also form explosive mixtures with the air.

XYLENE (MIXTURE OF ISOMERS)
Stable in normal conditions of use and storage.Reacts violently with: strong oxidants.strong acids.nitric acid,perchlorates.May form explosive mixtures with: air.

2-METHOXY-1-METHYLETHYL ACETATE
May react violently with: oxidising substances.strong acids.alkaline metals.
TOLUENE
Risk of explosion on contact with: fuming sulphuric acid,nitric acid,silver perchlorate.nitrogen dioxide.non-metal halogenates,acetic acid.organic nitrocompounds.May form explosive mixtures with: air.May react dangerously with: strong oxidising agents,strong acids.sulphur.

BUTANONE
May form peroxides with: air,light,strong oxidising agents.Risk of explosion on contact with: hydrogen peroxide.nitric acid.sulphuric acid.May react dangerously with: oxidising agents,trichloromethane,alkalis.Forms explosive mixtures with: air.

ETHYL ACETATE
Risk of explosion on contact with: alkaline metals,hydrides,oleum.May react violently with: fluorine.strong oxidising agents,chlorosulphuric acid,potassium tert-butoxide.Forms explosive mixtures with: air.

N-BUTYL ACETATE
Risk of explosion on contact with: strong oxidising agents.May react dangerously with: alkaline hydroxides.potassium tert-butoxide.
Forms explosive mixtures with: air.

10.4. Conditions to avoid
Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.
BUTANONE
Avoid exposure to: sources of heat.
ETHYL ACETATE
Avoid exposure to: light.sources of heat.naked flames.
N-BUTYL ACETATE
Avoid exposure to: moisture.sources of heat,naked flames.

10.5. Incompatible materials
2-METHOXY-1-METHYLETHYL ACETATE
Incompatible with: oxidising substances.strong acids.alkaline metals.
BUTANONE
Incompatible with: strong oxidants.inorganic acids,ammonia,copper,chloroform.
ETHYL ACETATE
Incompatible with: acids,bases,strong oxidants,aluminium,nitrates,chlorosulphuric acid.Incompatible materials: plastic materials.
N-BUTYL ACETATE
Incompatible with: water,nitrates,strong oxidants,acids,alkalis,zinc.

10.6. Hazardous decomposition products
In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. TOXICOLOGICAL INFORMATION

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.
It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects
Metabolism, toxicokinetics, mechanism of action and other information

Information on likely routes of exposure
XYLENE (MIXTURE OF ISOMERS)
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air.

2-METHOXY-1-METHYLETHYL ACETATE
WORKERS: inhalation; contact with the skin.

TOLUENE
WORKERS: inhalation; contact with the skin.
POPULATION: ingestion of contaminated food or water; inhalation of ambient air; contact with the skin of products containing the substance.

N-BUTYL ACETATE
WORKERS: inhalation; contact with the skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

XYLENE (MIXTURE OF ISOMERS)
Toxic effect on the central nervous system (encephalopathy); irritating for the skin, conjunctiva, cornea and respiratory apparatus.

2-METHOXY-1-METHYLETHYL ACETATE
Above 100 ppm causes irritation of the eye, nose and oropharynx mucous membranes. At 1000 ppm, disturbance of equilibrium and severe eye irritation can be noticed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and eye irritation with direct contact. No chronic effects on humans have been reported (INCR, 2010).

TOLUENE
Toxic effect on the central and peripheral nervous system with encephalopathy and polyneuritis; irritating for the skin, conjunctiva, cornea and respiratory apparatus.

N-BUTYL ACETATE
In humans, the substance's vapours cause irritation of the eyes and nose. In the event of repeated exposure, skin irritation, dermatitis (dryness and cracking of the skin) and keratitis appear.

Interactive effects

XYLENE (MIXTURE OF ISOMERS)
Intake of alcohol interferes with the metabolism of the substance, inhibiting ii. Ethanol consumption (0.8 g/kg) before a 4-hour exposure to xylene vapours (145 and 280 ppm) causes a 50% reduction in the excretion of methyl hippuric acid, whereas the concentration of xylenes in the blood increases approx. 1.5-2 times. At the same time there is an increase in the secondary side effects of the ethanol. The metabolism of the xylenes is increased by phenobarbital and 3-methyl-colantrene type enzyme inducers. Aspirin and xylenes mutually inhibit their conjugation with the glycine, which results in a decrease in urinary excretion of methyl hippuric acid. Other industrial products can interfere with the metabolism of xylenes.
TOLUENE
Certain drugs and other industrial products can interfere with the metabolism of the toluene.
N-BUTYL ACETATE
A case of acute intoxication been reported involving a 33 year old worker while cleaning a tank with a preparation containing xylenes, butyl acetate and ethylene glycol acetate. The person had irritation of the conjunctiva and upper respiratory tract, drowsiness and motor coordination disorders, which disappeared within 5 hours. The symptoms are attributed to poisoning by mixed xylenes and butyl acetate, with a possible synergistic effect responsible for the neurological effects. Cases of vacuolar keratitis are reported in workers exposed to a mixture of butyl acetate and isobutanol vapours, but with uncertainty concerning the responsibility of a particular solvent (INRC, 2011).

ACUTE TOXICITY

ATE (Inhalation) of the mixture:	>20 mg/l
ATE (Oral) of the mixture:	Not classified (no significant component)
ATE (Dermal) of the mixture:	2000 mg/kg

XYLENE (MIXTURE OF ISOMERS)

LD50 (Oral)	3523 mg/kg
LD50 (Dermal)	4200 mg/kg
LC50 (Inhalation)	29 mg/l/4h

AQUIMAX FLAMESHIELD BARRIER COAT

2-METHOXY-1-METHYLETHYL ACETATE

LD50 (Oral)	8530 mg/kg
LD50 (Dermal)	>5000 mg/kg

TOLUENE

LD50 (Oral)	4328 mg/kg
LD50 (Dermal)	12124 mg/kg
LC50 (Inhalation)	19,07 mg/l/4h

BUTANONE

LD50 (Oral)	2193 mg/kg
LD50 (Dermal)	> 5000 mg/kg
LC50 (Inhalation)	23,5 mg/l/8h

ETHYL ACETATE

LD50 (Oral)	4100 mg/kg
LD50 (Dermal)	> 2000 mg/kg

N-BUTYL ACETATE

LD50 (Oral)	> 6400 mg/kg
LD50 (Dermal)	> 5000 mg/kg
LC50 (Inhalation)	21, 1 mg/l/4h

SKIN CORROSION / IRRITATION
Causes skin irritation
SERIOUS EYE DAMAGE / IRRITATION
Causes serious eye irritation
RESPIRATORY OR SKIN SENSITISATION
Does not meet the classification criteria for this hazard class
GERM CELL MUTAGENICITY
Does not meet the classification criteria for this hazard class
CARCINOGENICITY
Does not meet the classification criteria for this hazard class

XYLENE (MIXTURE OF ISOMERS)
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".
TOLUENE
Classified in Group 3 (not classifiable as a human carcinogen) by the International Agency for Research on Cancer (IARC) - (IARC, 1999).
The US Environmental Protection Agency (EPA) affirms that "the data is inadequate for an assessment of the carcinogenic potential".

REPRODUCTIVE TOXICITY
Suspected of damaging the unborn child STOT
SINGLE EXPOSURE
May cause drowsiness or dizziness STOT
REPEATED EXPOSURE
May cause damage to organs
ASPIRATION HAZARD
Toxic for aspiration

AQUIMAX FLAMESHIELD BARRIER COAT

SECTION 12. ECOLOGICAL INFORMATION

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

XYLENE (MIXTURE OF ISOMERS)	
LC50 - for Fish	2,6 mg/l/96h Oncorhyncus mykiss
EC50 - for Crustacea	3,82 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	2,2 mg/l/72h
Chronic NOEC for Fish	> 1,3 mg/l 56 d
Chronic NOEC for Crustacea	0,96 mg/l7 d
Chronic NOEC for Algae / Aquatic Plants	0,44 mg/l 72 h
2-METHO XY-1-METHYLETHYL ACETATE	
LC50 - for Fish	134 mg/l/96h Oncorhyncus mykiss
EC50 - for Crustacea	408 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	> 1000 mg/l/
Chronic NOEC for Fish	47,5 mg/l (14 days) Oryzias lapites
Chronic NOEC for Crustacea	> 100 mg/l (21 days) Daphnia magna
Chronic NOEC for Algae / Aquatic Plants	> 1000 mg/l Selenastrum capricornutum
TOLUENE	
LC50 - for Fish	5,5 mg/l/96h Oncorhynchus kisutch
EC50 - for Crustacea	3,78 mg/l/48h Ceriodaphnia dubia
Chronic NOEC for Fish	1,4 mg/l40 d
Chronic NOEC for Crustacea	0,74 mg/l7 d
BUTANONE	
LC50 - for Fish	2993 mg/l/96h Pimephales promelas
EC50 - for Crustacea	308 mg/l/48h Daphnia
ETHYL ACETATE	
LC50 - for Fish	230 mg/l/96h Pimephales promelas
EC50 - for Crustacea	260 mg/l/48h Daphnia magna
Chronic NOEC for Fish	< 9,65 mg/l Pimephales promelas
Chronic NOEC for Crustacea	2,4 mg/l Daphnia magna (21 d)
N-BUTYL ACETATE	
LC50 - for Fish	17 mg/l/96h Pimephales promelas
EC50 - for Crustacea	44 mg/l/48h Daphnia magna
EC50 - for Algae / Aquatic Plants	674,7 mg/l/72h Desmodesmus subspicatus
Chronic NOEC for Crustacea	23 mg/l21 d

12.2. Persistence and degradability

XYLENE (MIXTURE OF ISOMERS)	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	
2-METHO XY-1-METHYLETHYL ACETATE	
Solubility in water	>10000 mg/l
Rapidly degradable	
TOLUENE	
Solubility in water	100 - 1000 mg/l
Rapidly degradable	
BUTANONE	
Solubility in water	> 10000 mg/l
Rapidly degradable	

ETHYL ACETATE	
Solubility in water	>10000 mg/l
Rapidly degradable	70%
N-BUTYL ACETATE	
Solubility in water	1000 - 10000 mg/l
Rapidly degradable	83%

12.3. Bioaccumulative potential

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: n-octanol/water	3,12
BCF	25,9
2-METHOXY-1-METHYLETHYL ACETATE	
Partition coefficient: n-octanol/water	1.2
TOLUENE	
Partition coefficient: n-octanol/water	2,73
BCF	90
BUTANONE	
Partition coefficient: n-octanol/water	0,3
ETHYL ACETATE	
Partition coefficient: n-octanol/water	0,68
BCF	30
N-BUTYL ACETATE	
Partition coefficient: n-octanol/water	2,3
BCF	15.3

12.4. Mobility in soil

XYLENE (MIXTURE OF ISOMERS)	
Partition coefficient: soil/water	2,73
N-BUTYL ACETATE	
Partition coefficient: soil/water	<3

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage than 0, 1 %.

12.6. Other adverse effects

Information not available

SECTION 13. ECOLOGICAL INFORMATION

For disposal or recovery in EU countries , use the relevant waste code (EWC code) identified in the European Waste Catalogue. The producer of the waste must assign the EWC code according to the sector and type of process. Disposal must be carried out by an authorised waste management company.

After the producer of the waste has assigned the EWC code, the contaminated packaging must be sent for recovery or disposal in compliance with the European waste management regulations. Disposal must be carried out by an authorised waste management company. For waste disposal or recovery in countries outside the EU, comply with the national or local regulations in force. For disposal or recovery of contaminated packaging in countries outside the EU, comply with the national or local regulations in force. Waste transportation may be subject to regulations on transportation of hazardous goods.

AQUIMAX FLAMESHIELD BARRIER COAT

SECTION 14. TRANSPORT INFORMATION

14.1. UN number
/ RID, IMDG, IATA: 1263

14.2. UN proper shipping name

ADR/RID:	PAINT
IMDG:	PAINT
IATA:	PAINT

14.3. Transport hazard class(es)

ADR/RID: Class: 3	Label: 3
IMDG: Class 3	Label: 3
IATA: Class 3	Label: 3

14.4. Packing group
ADR / RID, IMDG, IATA: II

14.5. Environmental hazards

ADR/RID:	No
IMDG:	No
IATA	No

14.6. Special precautions for user

ADR/RID:	HIN - Kemler: 33 Special Provision: 640 D	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-E	Limited Quantities: 5 L	
IATA:	Cargo:	Maximum quantity: 60 L	Packaging instructions: 364
	Pass.:	Maximum quantity: 5 L	Packaging instructions: 353
	Special Instructions:	A3, A7 2, A19 2	

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Information not relevant

SECTION 15. REGULATORY INFORMATION

Only for uses exempt from EU DIRECTIVE 2004/4 2/CE.

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

Seveso Category - Directive 201 2/18/EC: P5c
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product
Point 3-40
Contained Sumbstance
Point 48 TOLUENE
Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage <!: than 0, 1 %.

Substances subject to authorisation (Annex XIV REACH)
None

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:
None

Substances subject to the Rotterdam Convention:
None

Substances subject to the Stockholm Convention:
None

Healthcare controls
Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

SECTION 16. OTHER INFORMATION

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Repr. 2	Reproductive toxicity, category 2
AcuteTox. 4	Acute toxicity, category 4
Asp. Tox. 1	Aspiration hazard, category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, category 2
Eye lrrit. 2	Eye irritation, category 2
Skin lrrit. 2	Skin irritation, category 2
STOTSE3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 3	Hazardous to the aquatic environment, chronic toxicity, category 3
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H361d	Suspected of damaging the unborn child.
H312	Harmful in contact with skin.
H332	Harmful if inhaled.
H304	May be fatal if swallowed and enters airways.
H373	May cause damage to organs through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

AQUIMAX FLAMESHIELD BARRIER COAT

LEGEND:

-ADR: European Agreement concerning the carriage of Dangerous goods by Road
-CAS NUMBER: Chemical Abstract Service Number
-CE50: Effective concentration (required to induce a 50% effect)
-CE NUMBER: Identifier in ESIS (European archive of existing substances)
-CLP: EC Regulation 1272/2008
-DNEL: Derived No Effect Level
-EmS: Emergency Schedule
-GHS: Globally Harmonized System of classification and labeling of chemicals
-IATA DGR: International Air Transport Association Dangerous Goods Regulation
-IC50: Immobilization Concentration 50%
-IMDG: International Maritime Code for dangerous goods
-IMO: International Maritime Organization
-INDEX NUMBER: Identifier in Annex VI of CLP
-LCS0: Lethal Concentration 50%
-LD50: Lethal dose 50%- OEL: Occupational Exposure Level
-PBT: Persistent bioaccumulative and toxic as REACH Regulation
-PEC: Predicted environmental Concentration
-PEL: Predicted exposure level
-PNEC: Predicted no effect concentration
-REACH: EC Regulation 1907/2006
-RID: Regulation concerning the international transport of dangerous goods by train
-TLV: Threshold Limit Value
-TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
-TWA STEL: Short-term exposure limit
-TWA: Time-weighted average exposure limit
-VOC: Volatile organic Compounds
-vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
-WGK: Water hazard classes (German).

GENERAL BIBLIOGRAPHY

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Alp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Alp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (Ill Atp. CLP) of the European Parliament
7.Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Alp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10.Regulation (EU) 2015/1221 (VII Alp. CLP) of the European Parliament
11.Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13.Regulation (EU) 2017/776 (X Atp. CLP)
14.Regulation (EU) 2018/669 (XI Alp. CLP)
15.Regulation (EU) 2018/1480 (XIII Atp. CLP)
16.Regulation (EU) 2019/521 (XII Alp. CLP)

Ultrimax Coatings Ltd
Shaw Lane Industrial Estate
Ogden Road
Doncaster DN2 4SE

T. 01302 856666
E. sales@ultrimaxstore.com
www.ultrimaxstore.com

-The Merck Index. - 10th Edition
-Handling Chemical Safety
-INRS - Fiche Toxicologique (toxicological sheet)
-Patty - Industrial Hygiene and Toxicology
-N.1. Sax - Dangerous properties of Industrial Materials-?, 1989 Edition
-IFA GESTIS website
-ECHA website
-Database of SOS models for chemicals - Ministry of Health and ISS (lstituto Superiore di Sanita) - Italy

Note for users:
The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.
This document must not be regarded as a guarantee on any specific product property.
The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.
Provide appointed staff with adequate training on how to use chemical products.
CALCULATION METHODS FOR CLASSIFICATION
Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.
Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.
Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.
Changes to previous review:
The following sections were modified:
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