



ULTRA FAST AIR DRY HARDENER

SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830 - United Kingdom (UK).

Version: 01

Revision: 28.04.2016
(Previous revision None)

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

1.1 Product Identifier;

Product Name Ultra Fast Air Dry Hardener

Product Code: 0303

Product Synonyms:

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

Product use Professional use only. Spray application.

**Use of the
Substance/mixture** Hardener for coatings.

1.3 Details of the supplier of the safety data sheet;

Churchill Paints Ltd
Riverdane Road, Eaton Bank Trading Estate,
Congleton, Cheshire, CW12 1PN
Tel. +44(0)1260 290666, Fax. +44(0)1260 290 444

**e-mail address of
person responsible
for this SDS** sales@churchill-paints.co.uk

1.4 Emergency Telephone Number:

+44(0) 1260 290 666 (office hours only)

2. SECTION 2: Hazards identification;

2.1 Classification of the substance or mixture;

Product definition Mixture

Classification In accordance with the Classification, Labelling and Packaging Regulation (EC) No 1272/2008

Physical hazards Flam. Liq. 3, H226

Health hazards Skin Irrit. 2, H315



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Skin Sens. 1, H317
 Eye Irrit. 2, H319
 Acute Tox. 4, H332
 STOT SE 3, H335
 STOT SE 3, H336
 STOT RE 2, H373

Environmental hazards

Not Classified

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms



Signal word

Warning

Hazard statements

H226 – Flammable liquid and vapour.
 H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H319 – Causes serious eye irritation.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness.
 H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Nonsmoking.
 P240 - Ground/bond container and receiving equipment.
 P241 - Use explosion-proof electrical equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe vapour/spray.
 P261 - Avoid breathing vapour/spray.
 P264 - Wash contaminated skin thoroughly after handling.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing should not be allowed out of the workplace.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 IF ON SKIN: Wash with plenty of water.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.



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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.
 P312 - Call a POISON CENTER/doctor if you feel unwell.
 P314 - Get medical advice/attention if you feel unwell.
 P321 - Specific treatment (see medical advice on this label).
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 - If eye irritation persists: 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.

Storage

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.

Disposal

P501 - Dispose of contents/ container to an approved waste disposal plant.

Hazardous Ingredients

Hexamethylene-1,6-diisocyanate Homopolymer, xylene, n-butyl acetate, isophorondiisocyanate Homopolymer, Dibutyltin dilaurate, 4-isocyanatosulphonyltoluene.

Supplemental label elements

EUH204: Contains isocyanates. May produce an allergic reaction.

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Not applicable

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

3. SECTION 3: Composition/information on ingredients

3.2 Mixtures

Mixture

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<i>REACH Registration Number</i>	<i>Chemical name</i>	<i>% by wt.</i>	<i>CAS No.</i>	<i>EC No. (EINEC S)</i>	<i>Index No.</i>	<i>Classification Regulation (EC) No.1272/2008 [CLP]</i>
01-2119485796-17	Hexamethylene di-isocyanate, oligomers	≥10 - <30	28182-81-2	500-060-2	Non-applicable	Skin Sens. 1, H317 Acute Tox. 4, H332 STOT SE 3, H335
01-2119488216-32	Xylene (mixture of isomers)	≥30 - <60	1330-20-7	215-535-7	601-022-00-9	Acute Tox. 4, H312+H332 Flam. Liq. 3, H226 Skin Irrit. 2, H315
01-2119485493-29	n-Butyl Acetate Butyl ethanoate	≥10 - <30	123-86-4	204-658-1	607-025-00-1	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
	isophorondiisocyanate Homopolymer	≥5 - <10	53880-05-0	500-125-5		Skin Sens. 1B, H317 STOT SE 3, H335
01-2119475791-29	2-Methoxy-1-methylethyl acetate	≥ 5 - <10	108-65-6	203-603-9	607-195-00-7	Flam. Liq. 3, H226 Eye Irrit. 2, H319
	Dibutyltin dilaurate	< 1	77-58-7	201-039-8		Skin Corr. 1C, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Repr. 1B, H360FD STOT SE 1, H370 STOT RE 1, H372 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
01-2119489370-35	Ethyl benzene	< 1	100-41-4	202-849-4	601-023-00-4	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Acute Tox. 4, H332 STOT RE 2, H373
	4-isocyanatosulphonyltoluene	< 1	4083-64-1	223-810-8		Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335
	hexamethylene-di-isocyanate	< 1	822-06-0	212-485-8		Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 3, H331 Resp. Sens. 1, H334 STOT SE 3, H335

The Full Text for all Hazard Statements on this SDS is displayed in Section 16.



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4. SECTION 4: First aid measures

4.1. Description of first aid measures

Eye contact Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Inhalation If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. Get medical attention immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In serious cases see a doctor.

Ingestion If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

Protection of first-aiders No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Eye contact Causes serious eye irritation.

Inhalation Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.

Skin contact Defatting to the skin. May cause skin dryness and irritation. May cause an allergic skin reaction.

Ingestion No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.

Inhalation Adverse symptoms may include the following:
respiratory tract irritation
coughing

Skin contact Adverse symptoms may include the following:

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irritation
redness
dryness
cracking

Ingestion No specific data.

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

Notes to physician In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Immediate / special treatment: No specific treatment.

5. **SECTION 5: Firefighting measures**

5.1. *Extinguishing media*

Suitable extinguishing media

Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media

Do not use water jet.

5.2. *Special hazards arising from the substance or mixture*

Hazards from the Mixture

Flammable liquid and vapour. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous combustion products

Decomposition products may include the following materials:

Carbon dioxide
Carbon monoxide
Nitrogen oxides

5.3. *Advice for firefighters*

Protective actions during firefighting

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Use water to keep fire-exposed containers cool and disperse vapours. Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.



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Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency Personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Isolate leaks providing there is no additional risk to those performing this task. Personal protection equipment must be used to avoid direct contact with the spillage. Shut off all ignition sources. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2. Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3. Methods and material for containment and cleaning up

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

Special provisions

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Place in a suitable container. The contaminated



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area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

6.4. *Reference to other sections*

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

7. SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1. *Precautions for safe handling*

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

7.2. *Conditions for safe storage, including any incompatibilities*

Storage precautions Storage temperature: 0 to 35°C (32 to 95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Precautions should be taken to minimise exposure to atmospheric humidity or water. CO₂ will be formed, which, in closed containers, could result in pressurisation.

**ULTRA FAST AIR DRY HARDENER****7.3 Specific end use(s)**

Hardener.

8. SECTION 8: Exposure Controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1. Control parameters

<i>Occupational exposure limits to be monitored in the work environment</i>					
<i>Ingredient name:</i>	<i>Comment (from EH40)</i>	<i>Time-weighted average – 8 hrs (TWA).</i>		<i>Short-term exposure limits – 15min (STELs)</i>	
		<i>ppm.</i>	<i>mg/m³</i>	<i>ppm.</i>	<i>mg/m³</i>
Hexamethylene di-isocyanate, oligomers	Sen		0.02		0.07
Xylene (mixture of isomers)	Sk	50	220	100	441
n-Butyl Acetate Butyl ethanoate		150	724	200	966
isophorondiisocyanate Homopolymer	Sen		0.02		0.07
2-Methoxy-1-methylethyl acetate	Sk	50	274	100	548
Dibutyltin dilaurate	Sk		0.1 (As Tin)		0.2 (As Tin)
Ethyl benzene	Sk	100	441	125	552
hexamethylene-di-isocyanate	Sen		0.02		0.07

Comments are from HSE Guidance Note EH40/2005 Workplace exposure limits (WELs)

Sk - Can be absorbed through skin

Sen - Capable of causing occupational asthma.

**ULTRA FAST AIR DRY HARDENER***DNELs (Workers)*

<i>Ingredient name:</i>	<i>Exposure</i>	<i>Short term</i>		<i>Long term</i>	
		<i>Systemic</i>	<i>Local</i>	<i>Systemic</i>	<i>Local</i>
Hexamethylene di-isocyanate, oligomers	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	Non-applicable	1 mg/m ³	Non-applicable	0.5 mg/m ³
Xylene (mixture of isomers)	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	<i>Inhalation</i>	289 mg/m ³	289 mg/m ³	77 mg/m ³	Non-applicable
n-Butyl Acetate Butyl ethanoate	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	960 mg/m ³	960 mg/m ³	480 mg/m ³	480 mg/m ³
isophorondiisocyanate Homopolymer	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	Non-applicable	0.29 mg/m ³
2-Methoxy-1-methylethyl acetate	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	796 mg/kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	275 mg/m ³	Non-applicable

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Dibutyltin dilaurate	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	2.08 mg/kg bw/d	Non-applicable	0.42 mg/kg bw/d	Non-applicable
	<i>Inhalation</i>	960 mg/m ³	Non-applicable	0.02 mg/m ³	Non-applicable
Ethyl benzene	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	180 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	293 mg/m ³	77 mg/m ³	Non-applicable
4-isocyanatosulphonyltoluene	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	0.92 mg/kg bw/d	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	3.24 mg/m ³	Non-applicable
hexamethylene-diisocyanate	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	0.07 mg/m ³	0.07 mg/m ³	0.035 mg/m ³	0.035 mg/m ³

DNELs (General Population)

<i>Ingredient name:</i>	<i>Exposure</i>	<i>Short term</i>		<i>Long term</i>	
		<i>Systemic</i>	<i>Local</i>	<i>Systemic</i>	<i>Local</i>
Xylene (mixture of isomers)	<i>Oral</i>	Non-applicable	Non-applicable	1.6 mg/kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	108 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	14.8 mg/m ³	Non-applicable

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n-Butyl Acetate Butyl ethanoate	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	859.7 mg/m ³	859.7 mg/m ³	102.34 mg/m ³	102.34 mg/m ³
2-Methoxy-1-methylethyl acetate	<i>Oral</i>	Non-applicable	Non-applicable	1.67 mg/kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	54.8 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	33 mg/m ³	Non-applicable
Dibutyltin dilaurate	<i>Oral</i>	0.02 mg/kg bw/day	Non-applicable	0.002 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	1.0 mg/kg bw/day	Non-applicable	0.16 mg/kg bw/day	Non-applicable
	<i>Inhalation</i>	0.04 mg/m ³	Non-applicable	0.006 mg/m ³	Non-applicable
Ethyl benzene	<i>Oral</i>	Non-applicable	Non-applicable	1.6 mg/kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	15 mg/m ³	Non-applicable
4-isocyanatosulphonyltoluene	<i>Oral</i>	Non-applicable	Non-applicable	0.46 mg/kg bw/d	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	0.46 mg/kg bw/d	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	0.8 mg/m ³	Non-applicable

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<i>Ingredient name:</i>	<i>Environmental sphere</i>	<i>PNEC value</i>
Hexamethylene di-isocyanate, oligomers	<i>Fresh water</i>	0.127 mg/L
	<i>Marine water</i>	0.0127 mg/L
	<i>Fresh water sediment</i>	266700 mg/kg
	<i>Marine water sediment</i>	26670 mg/kg
	<i>Sewage Treatment</i>	38.3 mg/L
	<i>Soil</i>	53182 mg/kg
Xylene (mixture of isomers)	<i>Fresh water</i>	0.327 mg/L
	<i>Marine water</i>	0.327 mg/L
	<i>Fresh water sediment</i>	12.46 mg/kg
	<i>Marine water sediment</i>	12.46 mg/kg
	<i>Sewage Treatment</i>	6.58 mg/L
	<i>Soil</i>	2.31 mg/kg
n-Butyl Acetate Butyl ethanoate	<i>Fresh water</i>	0.18 mg/L
	<i>Marine water</i>	0.018 mg/L
	<i>Fresh water sediment</i>	0.981 mg/kg
	<i>Marine water sediment</i>	0.0981 mg/kg
	<i>Sewage Treatment</i>	35.6 mg/L
	<i>Soil</i>	0.0903 mg/kg
2-Methoxy-1-methylethyl acetate	<i>Fresh water</i>	0.635 mg/L
	<i>Marine water</i>	0.0635 mg/L
	<i>Fresh water sediment</i>	3.29 mg/kg
	<i>Marine water sediment</i>	0.329 mg/kg
	<i>Sewage Treatment</i>	100 mg/L
	<i>Soil</i>	0.29 mg/kg

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Dibutyltin dilaurate	<i>Fresh water</i>	0.463 µg/L
	<i>Marine water</i>	0.0463 µg/L
	<i>Fresh water sediment</i>	0.05 mg/kg
	<i>Marine water sediment</i>	0.005 mg/kg
	<i>Sewage Treatment</i>	100 mg/L
	<i>Soil</i>	0.0407 mg/kg
Ethyl benzene	<i>Fresh water</i>	0.1 mg/L
	<i>Marine water</i>	0.01 mg/L
	<i>Fresh water sediment</i>	13.7 mg/kg
	<i>Marine water sediment</i>	1.37 mg/kg
	<i>Sewage Treatment</i>	9.6 mg/L
	<i>Soil</i>	2.68 mg/kg
4-isocyanatosulphonyltoluene	<i>Fresh water</i>	0.03 mg/L
	<i>Marine water</i>	0.003 mg/L
	<i>Fresh water sediment</i>	0.172 mg/kg
	<i>Marine water sediment</i>	0.0172 mg/kg
	<i>Sewage Treatment</i>	0.4 mg/L
	<i>Soil</i>	0.0168 mg/kg
hexamethylene-di-isocyanate	<i>Fresh water</i>	0.0774 mg/L
	<i>Marine water</i>	0.00774 mg/L
	<i>Fresh water sediment</i>	0.01334 mg/kg
	<i>Marine water sediment</i>	0.001344 mg/kg
	<i>Sewage Treatment</i>	8.42 mg/L
	<i>Soil</i>	0.0026 mg/kg

8.2 Exposure controls:***Appropriate engineering controls***

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.



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8.3 Individual protection measures, such as personal protective equipment (PPE)

Hygiene measures Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles.



Skin protection

For hands, chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacture that can provide information about the breakthrough time of the glove material.

For body, Personal protective equipment should be selected based on the task being performed and the risks involved.

For feet, appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.



Protective gloves



Overall



Safety boots

Respiratory Protection

When spraying, use air-fed respirator. Gas/vapour filter, type A: organic vapours (EN141). Self-contained breathing apparatus must be available in case of emergency.

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.

9. SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance

Physical State

Liquid

Colour

Colourless to pale yellow

Odour

Characteristic

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<i>Odour threshold</i>	Not available
<i>pH</i>	Not available
<i>Melting point</i>	Not available
<i>Freezing point</i>	Not available
<i>Initial boiling point</i>	Not available
<i>Boiling range</i>	Not available
<i>Flash point</i>	Not available
<i>Evaporation rate</i>	Not available
<i>Flammability (solid, gas)</i>	Not available
<i>Upper/lower Flammability or Explosive limits</i>	Not available
<i>Vapour pressure</i>	Not available
<i>Vapour density</i>	Not available
<i>Relative density</i>	0.954
<i>Solubility(ies)</i>	Not available
<i>Partition coefficient n-octanol/water</i>	Not available
<i>Auto-ignition temperature</i>	Not available
<i>Decomposition temperature</i>	Not available
<i>Viscosity</i>	Not available
<i>Explosive properties</i>	Not available
<i>Oxidising properties</i>	Not available

10. SECTION 10: Stability and reactivity

10.1 Reactivity:

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

10.2 Chemical Stability:

This product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid

In a fire, hazardous decomposition products may be produced.

10.5 Incompatible materials

Keep away from: oxidising agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.

10.6 Hazardous decomposition products

Decomposition products may include the following materials: carbon monoxide,

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carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates.

11. SECTION 11: Toxicological information

11.1. Information on toxicological effects

<i>Ingredient name:</i>	<i>Acute toxicity test</i>	<i>Species</i>	<i>Dose</i>	<i>Exposure</i>
Xylene (mixture of isomers)	<i>Oral – LD₅₀</i>	Rat	>3500 mg/kg	
	<i>Dermal – LD₅₀</i>	Rabbit	>4200 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	>20 mg/L	4 hrs
n-Butyl Acetate Butyl ethanoate	<i>Oral – LD₅₀</i>	Rat	>10700 mg/kg	
	<i>Dermal – LD₅₀</i>	Rabbit	17600 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	>21 mg/L	4 hrs
isophorondiisocyanate Homopolymer	<i>Oral – LD₅₀</i>	Rat	>5 ml/kg bw	
	<i>Dermal – LD₅₀</i>	Rabbit	No data available	
	<i>Inhalation – LC₅₀</i>	Rat	> 5010 mg/m ³ air	4 hrs
2-Methoxy-1-methylethyl acetate	<i>Oral – LD₅₀</i>	Rat	8532 mg/kg	
	<i>Dermal – LD₅₀</i>	Rat	>2000 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	4345 ppm	6 hrs
Dibutyltin dilaurate	<i>Oral – LD₅₀</i>	Rat	2071mg/kg	
	<i>Dermal – LD₅₀</i>	Rat	>2000 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	No data available	

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Ethyl benzene	<i>Oral – LD₅₀</i>	Rat	3500 mg/kg	
	<i>Dermal – LD₅₀</i>	Rabbit	15354 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	17.2 mg/L	4 hrs
4-isocyanatosulphonyltoluene	<i>Oral – LD₅₀</i>	Rat	2330 mg/kg	
	<i>Dermal – LD₅₀</i>	Rat	>2000 mg/kg	
	<i>Inhalation – LC₅₀</i>	Rat	No data available	
hexamethylene-diisocyanate	<i>Oral – LD₅₀</i>		>2000 mg/kg	
	<i>Dermal – LD₅₀</i>		>2000 mg/kg (ATEi)	
	<i>Inhalation – LC₅₀</i>		3 mg/L (ATEi)	4 hrs

Skin corrosion/irritation

Ingestion – The consumption of a considerable dose can cause irritation of the throat, abdominal pain, nausea and vomiting.

Inhalation – Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

Serious eye damage/irritation

Based on available Data, the classification criteria are not met. The liquid splashed in the eyes may cause irritation and reversible damage.

Respiratory or skin sensitization

Skin irritation should not occur when used as recommended. Repeated exposure may cause skin dryness or cracking.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

Reproductive toxicity

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific target organ toxicity - single exposure

Based on available data, the classification criteria are not met, however, it does contain substances classified as dangerous for this effect. For more information see section 3.

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*Specific target
organ toxicity -
repeated exposure*

Based on available data, the classification criteria are not met, however, it does contain substances classified as dangerous with repeated exposure. For more information see section 3.

Aspiration hazard

Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

12. SECTION 12: Ecological Information

12.1. Toxicity

<i>Ingredient name:</i>	<i>Acute toxicity test</i>	<i>Genus - Species</i>	<i>Dose</i>	<i>Exposure</i>
Xylene (mixture of isomers)	<i>LC₅₀</i>	Fish - Oncorhynchus mykiss	13.5 mg/L	96 hrs
	<i>EC₅₀</i>	Crustacean - Gammarus lacustris	0.6 mg/L	96 hrs
	<i>EC₅₀</i>	Algae – Skeletonema costatum	10 mg/L	72 hrs
n-Butyl Acetate Butyl ethanoate	<i>LC₅₀</i>	Fish - Lepomis macrochirus (Bluegill)	100 mg/L	96 hrs
	<i>EC₅₀</i>	Daphnia magna (Water flea)	44 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Desmodesmus subspicatus (Scenedesmus subspicatus)	674.7 mg/L	72 hrs
isophorondiisocyanate Homopolymer	<i>LC₅₀</i>	Fish – Cyprinus carpio (Common carp)	>1.5 mg/L No mortality	96 hrs
	<i>EC₅₀</i>	Crustacean – Daphnia magna	2.4 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Desmodesmus subspicatus	3.1 mg/L No effects	72 hrs
2-Methoxy-1-methylethyl acetate	<i>LC₅₀</i>	Fish – Pimephales promelas	161 mg/L	96 hrs
	<i>EC₅₀</i>	Crustacean – Daphnia sp.	481 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Pseudokirchnerella subcapitata	> 1000 mg/L	96 hrs

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Dibutyltin dilaurate	<i>LC₅₀</i>	Fish - Danio rerio (Zebra fish)	3.1 mg/L (No mortality)	96 hrs
	<i>EC₅₀</i>	Daphnia magna (Water flea)	1.9 – 3.8 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Desmodesmus subspicatus (Scenedesmus subspicatus)	>1 mg/L	72 hrs
Ethyl benzene	<i>LC₅₀</i>	Fish – Pimephales promelas	42.3 mg/L	96 hrs
	<i>EC₅₀</i>	Crustacean – Daphnia magna	75 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Chlorella vulgaris	63 mg/L	3 hrs
4-isocyanatosulphonyltoluene	<i>LC₅₀</i>	Fish - Oncorhynchus mykiss (Rainbow trout)	>45 mg/L	72 hrs
	<i>EC₅₀</i>	Daphnia magna (Water flea)	>100 mg/L	48 hrs
	<i>EC₅₀</i>	Algae – Pseudokirchneriella subcapitata	30 mg/L	72 hrs

12.2. Persistence and degradability

<i>Ingredient name:</i>	<i>Concentration</i>	<i>Duration of test</i>	<i>% Biodegradability</i>
Xylene (mixture of isomers)			Readily biodegradable
n-Butyl Acetate Butyl ethanoate	3 mg/L	28 days	83
isophorondiisocyanate Homopolymer		28 days	0
2-Methoxy-1-methylethyl acetate	785 mg/L	8 days	100
Dibutyltin dilaurate	22.2 mg/L	39 days	23
Ethyl benzene	100 mg/L	14 days	90
4-isocyanatosulphonyltoluene	2 mg/L	28 days	86
hexamethylene-di-isocyanate	100 mg/L	28 days	28

**ULTRA FAST AIR DRY HARDENER***12.3. Bioaccumulative potential*

<i>Ingredient name:</i>	<i>BCF</i>	<i>Log P_{ow}</i>	<i>Potential</i>
Hexamethylene di-isocyanate, oligomers			No data available
Xylene (mixture of isomers)	9	2.77	Low
n-Butyl Acetate Butyl ethanoate	15.3	2.3	Low
isophorondiisocyanate Homopolymer		14.48	
2-Methoxy-1-methylethyl acetate	1	0.43	Low
Dibutyltin dilaurate	1.49 – 2.91	4.44	
Ethyl benzene	1	3.15	Low
4-isocyanatosulphonyltoluene	No data available	0.6	No data available
hexamethylene-di-isocyanate	3.2		Low

12.4. Mobility in soil

<i>Ingredient name:</i>	<i>K_{oc}</i>	<i>HLC</i> (Henry's law constant)	<i>Surface tension</i>
Xylene (mixture of isomers)	202	524.9 Pa.m ³ /mol	No data available
n-Butyl Acetate Butyl ethanoate	< 70	41.6 Pa m ³ /mol @ 25°C	No data available
2-Methoxy-1-methylethyl acetate	No data available	No data available	29.4 mN/m
Dibutyltin dilaurate	No data available	No data available	No data available
Ethyl benzene	520	798.4 Pa.m ³ /mol	28590 N/m (25C)

**ULTRA FAST AIR DRY HARDENER****12.5. Results of PBT and vPvB assessment**

This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

No known significant effects or critical hazards.

13. SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Disposal methods The generation of waste should be avoided or minimised wherever possible. Disposal of this product, should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Classification of waste according to Commission Regulation (EU) No 1357/2014**European waste catalogue (EWC)**

<i>Waste code</i>	<i>Description</i>
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances.

Packaging

<i>Waste code</i>	<i>Description</i>
15 01 04	Metallic cans

14. SECTION 14: Transport information

		<i>Land</i>	<i>Inland Waterways</i>	<i>Sea</i>	<i>Air</i>
		<i>ADR/RID</i>	<i>ADN</i>	<i>IMDG</i>	<i>ICAO</i>
14.1.	UN number	UN1866		UN1866	UN1866
14.2.	UN proper shipping name	Resin solution		Resin solution	Resin solution

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14.3.	<i>Transport hazard class(es)</i>	3		3	3
14.4.	<i>Packing group</i>	III		III	III
14.5.	<i>Environmental hazards</i> <i>Environmentally hazardous -</i> <i>Marine pollutant -----</i>	No -		- No	No -
14.6	<i>Special precautions for user</i>				
	<i>Special regulations</i>				
	<i>Tunnel restriction code</i>	D/E			
	<i>EmS codes</i>			F-E, S-E	
	<i>Physico-chemical properties</i>	See section 9		See section 9	See section 9
	<i>Limited quantities</i>	5L		5L	
14.7	<i>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</i>	Non-applicable		Non-applicable	Non-applicable

15. SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH) Annex XIV - List of substances subject to authorisation.

None of the ingredients of this mixture are listed in Annex XIV.

Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

Not applicable.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

16. SECTION 16: Other information
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This safety data sheet conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2015/830.

**ULTRA FAST AIR DRY HARDENER***Abbreviations and Acronyms*

DNEL	-	Derived No Effect Level
PNEC	-	Predicted No Effect Concentration
EUH statement	-	CLP-specific Hazard statement
ADR	-	European agreement concerning the international carriage of dangerous goods by road.
IMDG	-	International maritime dangerous goods code.
IATA	-	International Air Transport Association.
ICAO	-	International Civil Aviation Organisation.
BCF	-	Bio Concentration Factor
LD ₅₀	-	Lethal Dose 50
LC ₅₀	-	Lethal Concentration 50
EC ₅₀	-	Effective Concentration 50
Log P _{ow}	-	Octanol-water partition coefficient
K _{oc}	-	Partition coefficient of organic carbon

Full Text of Physical Hazards

H226 – Flammable liquid and vapour.

Full Text of Health Hazards

H315 - Causes skin irritation.
 H317 - May cause an allergic skin reaction.
 H319 – Causes serious eye irritation.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness.
 H373 - May cause damage to organs through prolonged or repeated exposure.

Full Text of Environmental Hazards

N/A

Full Text of CLP/GHS Classifications

Flam. Liq. 2	H225	Highly flammable liquid and vapour
Flam. Liq. 3	H226	Flammable liquid and vapour
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways
Acute Tox. 4	H312+H332	Harmful in contact with skin or if inhaled
Skin Corr. 1C,	H314	Causes severe skin burns and eye damage.
Skin Irrit. 2	H315	Causes skin irritation
Skin Sens. 1	H317	May cause an allergic skin reaction
Eye Dam. 1,	H318	Causes serious eye damage.
Eye Irrit. 2,	H319	Causes serious eye irritation.
Acute Tox. 3,	H331	Toxic if inhaled
Acute Tox. 4	H332	Harmful if inhaled
Resp.Sens. 1,	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3	H335	May cause respiratory irritation
STOT SE 3	H336	May cause drowsiness or dizziness.
Repr. 1B,	H360FD	May damage fertility. May damage the unborn

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STOT Single 1, H370	child.
STOT Rep. 1, H372	Causes damage to organs.
	Causes damage to organs through prolonged or repeated exposure.
STOT RE 2 H373	May cause damage to organs through prolonged or repeated exposure
Aquatic Acute 1, H400	Very toxic to aquatic life.
Aquatic Chronic 1, H410	Very toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

Disclaimer

The information contained in this safety data sheet is based on the state of knowledge and national legislation at the time of the 'revision date' shown on page 1. Further updates to this safety data sheet, in line with changes to legislation and technical knowledge, will be available from Churchill Paints or the Churchill website. Contact Churchill Paints for the latest revision. This safety data sheet provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. It is the user's responsibility to ascertain the suitability of the product for a specific use. As the specific conditions-of-use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.
