

**STANDARD CELLULOSE THINNER**

# 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: 03

Revision: 16.08.2015  
(Previous revision 26.09.2012)

Print date: 15.09.2015

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

### 1.1 Product Identifier;

**Product Name** Standard Cellulose Thinner

**Product Code:** 0106

**Product Synonyms:**

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

**Product use** Professional use only. Industrial applications

**Use of the  
Substance/mixture** Thinner 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](mailto: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. 2, H225

**Health hazards** Skin Irrit. 2, H315



## STANDARD CELLULOSE THINNER

Eye Dam. 1, H318  
 STOT SE 3, H336  
 Carc. 2, H351  
 Repr. 2, H361f  
 STOT RE 2, H373

### *Environmental hazards*

Aquatic Chronic 2, H411

### *Most important adverse effects*

Highly flammable. Harmful by inhalation and in contact with skin. Irritating to skin. Limited evidence of a carcinogenic effect. Risk of serious damage to eyes. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of impaired fertility. Possible risk of harm to the unborn child.

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*

Danger

### *Hazard statements*

H225 - Highly flammable liquid and vapour.  
 H315 - Causes skin irritation.  
 H318 - Causes serious eye damage.  
 H336 - May cause drowsiness or dizziness.  
 H351 - Suspected of causing cancer.  
 H361f - Suspected of damaging fertility.  
 H373 - May cause damage to organs through prolonged or repeated exposure.  
 H411 - Toxic to aquatic life with long lasting effects.

### *Precautionary Statements*

#### *Prevention*

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P241 - Use explosion-proof electrical/ventilating/lighting equipment.  
 P260 - Do not breathe dust/fumes/gas/mist/vapours/spray.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.

#### *Response*

P302+352 - IF ON SKIN: Wash with plenty of water/  
 P303+361+353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

#### *Storage*

P403 + P235 – Store in a well-ventilated place. Keep cool.

**STANDARD CELLULOSE THINNER**

*Disposal* Not applicable

*Hazardous Ingredients* Not applicable

*Supplemental label elements* Not applicable

*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.

<b>3. SECTION 3: Composition/information on ingredients</b>
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**3.2 Mixtures** Mixture

<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>
01-2119471310-51	<b>Toluene</b>	≥5 - <10	108-88-3	203-625-9	601-021-00-3	Flam. Liq. 2: H225; Repr. 2: H361d; Asp. Tox. 1: H304; STOT RE 2: H373; Skin Irrit. 2: H315; STOT SE 3: H336
01-2119475146-36	<b>Butan-2-ol</b>	< 5%	78-92-2	201-158-5	603-127-00-5	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336

**STANDARD CELLULOSE THINNER**

01-2119484630-38	<b>Butan-1-ol</b>	< 5%	71-36-3	200-751-6	603-004-00-6	Flam. Liq. 3, H226; Acute Tox. 4, H302; STOT SE 3, H335; Skin Irrit. 2, H315; Eye Dam. 1, H318; STOT SE 3, H336
01-2119463273-41	<b>Cyclohexane</b>	< 5%	110-82-7	203-806-2	601-017-00-1	Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 1, H410; Aquatic Acute 1, H400
01-2119489370-35	<b>Ethylbenzene</b>	< 5%	100-41-4	202-849-4	601-023-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; STOT RE 2, H373; Asp. Tox. 1, H304
01-2119457603-38	<b>Heptane</b>	< 5%	142-82-5	205-563-8	601-008-00-2	Flam. Liq. 2: H225; Asp. Tox. 1: H304; Skin Irrit. 2: H315; STOT SE 3: H336; Aquatic Acute 1: H400; Aquatic Chronic 1: H410
01-2119480412-44	<b>n-Hexane</b>	< 5%	110-54-3	203-777-6	601-037-00-0	Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 2, H411
01-2119457558-25	<b>Propan-2-ol</b>	< 5%	67-63-0	200-661-7	603-117-00-0	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
01-2119486761-29	<b>Propan-1-ol</b>	< 5%	71-23-8	200-746-9	603-003-00-0	Flam. Liq. 2, H225; Eye Dam. 1, H318;



## STANDARD CELLULOSE THINNER

						STOT SE 3, H336
01-2119488216-32	<b>Xylene (mixture of isomers)</b>	< 5%	1330-20-7	215-535-7	601-022-00-9	Acute Tox. 4, H312+H332 Flam. Liq. 3, H226 Skin Irrit. 2, H315
01-2119457610-43	<b>Ethanol</b>	< 5%	64-17-5	200-578-6	603-002-00-5	Flam. Liq. 2, H225
01-2119471330-49	<b>Acetone</b>	< 5%	67-64-1	200-662-2	606-001-00-8	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066
01-2119457290-43	<b>Methyl Ethyl Ketone</b>	< 5%	78-93-3	201-159-0	606-002-00-3	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066
01-2119485493-29	<b>n-Butyl Acetate Butyl ethanoate</b>	< 5%	123-86-4	204-658-1	607-025-00-1	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066
01-2119475103-46	<b>Ethyl acetate</b>	< 5%	141-78-6	205-500-4	607-022-00-5	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066
01-2119433307-44	<b>Methanol</b>	< 5%	67-56-1	200-659-6	603-001-00-X	Flam. Liq. 2, H225; Acute Tox. 3, H331; Acute Tox. 3, H311; Acute Tox. 3, H301; STOT SE 1, H370
01-2119451095-43	<b>Methyl Acetoacetate</b>	< 5%	105-45-3	203-299-8	607-137-00-0	Eye Irrit. 2, H319
01-2119473980-30	<b>4-Methyl- Pentan-2-One</b>	< 5%	108-10-1	203-550-1	606-004-00-4	Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; EUH066
01-2119484620-39	<b>Propyl acetate</b>	< 5%	109-60-4	203-686-1	607-024-00-6	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336; EUH066

**STANDARD CELLULOSE THINNER**

01-2119444314-46	<b>Tetrahydrofuran</b>	< 5%	109-99-9	203-726-8	603-025-00-0	Flam. Liq. 2, H225; Eye Irrit. 2, H319; Carc. 2, H351; STOT SE 3, H335; EUH019
	<b>Water</b>	< 5%	7732-18-5			Not classified

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

## **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.

#### **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.

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

#### **Eye contact**

There may be irritation and pain. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

#### **Inhalation**

There may be irritation of the throat with a feeling of tightness in the chest. There may be a feeling of tightness in the chest with shortness of breath.

#### **Skin contact**

There may be redness or whiteness of the skin in the area of exposure. An itchy rash may occur at the site of contact.

#### **Ingestion**

Severe poisoning can cause unconsciousness and severe and persistent nausea and vomiting.



## STANDARD CELLULOSE THINNER

### *Delayed / immediate effects*

There may be drowsiness, slurred speech, muscular weakness, muscle twitching, tremor, blurred vision, dilated pupils and shock. There may be vomiting and diarrhoea.

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

*Notes to physician* Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### *Immediate / special treatment:*

Eye bathing equipment should be available on the premises.

## 5. SECTION 5: Firefighting measures

### 5.1. *Extinguishing media*

#### *Suitable extinguishing media*

Carbon dioxide. Dry chemical powder. Alcohol resistant foam.

#### *Unsuitable extinguishing media*

Do not use water jet.

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

#### *Hazards from the Mixture*

Highly flammable. Vapour may travel considerable distance to source of ignition and flash back. Forms explosive air-vapour mixture.

#### *Hazardous combustion products*

Decomposition products may include the following materials:

Carbon dioxide  
Carbon monoxide

### 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.



## STANDARD CELLULOSE THINNER

### *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





## STANDARD CELLULOSE THINNER

licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

### 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** 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.

### 7.3. *Specific end use(s)*

Not available.

## 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).

**STANDARD CELLULOSE THINNER***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/m<sup>3</sup></i>	<i>ppm.</i>	<i>mg/m<sup>3</sup></i>
Toluene	Sk	50	191	100	384
Butan-2-ol		50	154	75	231
Butan-1-ol	Sk			50	154
Cyclohexane		100	350	300	1050
Ethylbenzene	Sk	100	441	125	552
Heptane		500	2085		
n-Hexane		20	72		
Propan-2-ol		400	999	500	1250
Propan-1-ol	Sk	200	500	250	625
Xylene	Sk	50	220	100	441
Ethanol		1000	1920		
Acetone		500	1210	1500	3620
Methyl Ethyl Ketone	Sk	200	600	300	899
n-Butyl Acetate Butyl ethanoate		150	724	200	966
Ethyl acetate		200		400	
Methanol	Sk	200	266	250	333
Methyl Acetoacetate	No data available	No data available	No data available	No data available	No data available
4-Methyl-Pentan-2-One	Sk	50	208	100	416
Propyl acetate		200	849	250	1060
Tetrahydrofuran	Sk	50	150	100	300

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

Sk : Can be absorbed through skin



## STANDARD CELLULOSE THINNER

## DNELs (Workers)

Ingredient name:	Exposure	Short term		Long term	
		Systemic	Local	Systemic	Local
Toluene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	384 mg/kg	Non-applicable
	Inhalation	384 mg/m <sup>3</sup>	384 mg/m <sup>3</sup>	192 mg/m <sup>3</sup>	192 mg/m <sup>3</sup>
Butan-2-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	405 mg/kg	Non-applicable
	Inhalation	Non-applicable	Non-applicable	212 mg/m <sup>3</sup>	Non-applicable
Butan-1-ol	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Inhalation	Non-applicable	Non-applicable	Non-applicable	310 mg/m <sup>3</sup>
Cyclohexane	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	2016 mg/kg	Non-applicable
	Inhalation	700 mg/m <sup>3</sup>	700 mg/m <sup>3</sup>	700 mg/m <sup>3</sup>	700 mg/m <sup>3</sup>
Ethylbenzene	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	180 mg/kg bw/day	Non-applicable
	Inhalation	Non-applicable	293 mg/m <sup>3</sup>	77 mg/m <sup>3</sup>	Non-applicable
Heptane	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	Dermal	Non-applicable	Non-applicable	300 mg/kg bw/day	Non-applicable
	Inhalation	Non-applicable	Non-applicable	2085 mg/m <sup>3</sup>	Non-applicable



## STANDARD CELLULOSE THINNER

<b>n-Hexane</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	11 mg/kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	75 mg/m <sup>3</sup>	Non-applicable
<b>Propan-2-ol</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	888 mg/kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	500 mg/m <sup>3</sup>	Non-applicable
<b>Propan-1-ol</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	136 mg/kg bw/day	Non-applicable
	<i>Inhalation</i>	1723 mg/m <sup>3</sup>	Non-applicable	268 mg/m <sup>3</sup>	Non-applicable
<b>Xylene</b>	<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 <sup>3</sup>	289 mg/m <sup>3</sup>	77 mg/m <sup>3</sup>	Non-applicable
<b>Ethanol</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	343 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	1900 mg/m <sup>3</sup>	950 mg/m <sup>3</sup>	Non-applicable
<b>Acetone</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	185 mg/Kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	2420 mg/m <sup>3</sup>	1210 mg/m <sup>3</sup>	Non-applicable
<b>Methyl Ethyl Ketone</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	1161 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	600 mg/m <sup>3</sup>	Non-applicable



## STANDARD CELLULOSE THINNER

<b>n-Butyl Acetate Butyl ethanoate</b>	<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 <sup>3</sup>	960 mg/m <sup>3</sup>	480 mg/m <sup>3</sup>	480 mg/m <sup>3</sup>
<b>Ethyl acetate</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	63 mg/kg	Non-applicable
	<i>Inhalation</i>	1468 mg/m <sup>3</sup>	1468 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>
<b>Methanol</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	6.83 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	12.05 mg/m <sup>3</sup>	Non-applicable
<b>Methyl Acetoacetate</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	8.33 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	29.17 mg/m <sup>3</sup>	Non-applicable
<b>4-Methyl-Pentan-2-One</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	11.8 mg/kg	Non-applicable
	<i>Inhalation</i>	208 mg/m <sup>3</sup>	208 mg/m <sup>3</sup>	83 mg/m <sup>3</sup>	83 mg/m <sup>3</sup>
<b>Propyl acetate</b>	<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>	840 mg/m <sup>3</sup>	840 mg/m <sup>3</sup>	420 mg/m <sup>3</sup>	420 mg/m <sup>3</sup>
<b>Tetrahydrofuran</b>	<i>Oral</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	25 mg/kg	Non-applicable
	<i>Inhalation</i>	300 mg/m <sup>3</sup>	300 mg/m <sup>3</sup>	150 mg/m <sup>3</sup>	150 mg/m <sup>3</sup>

**STANDARD CELLULOSE THINNER***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>
<b>Toluene</b>	<i>Oral</i>	Non-applicable	Non-applicable	8.13 mg/Kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	226 mg/Kg	Non-applicable
	<i>Inhalation</i>	226 mg/m <sup>3</sup>	226 mg/m <sup>3</sup>	56.5 mg/m <sup>3</sup>	56.5 mg/m <sup>3</sup>
<b>Butan-2-ol</b>	<i>Oral</i>	Non-applicable	Non-applicable	15 mg/kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	203 mg/kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	52 mg/m <sup>3</sup>	Non-applicable
<b>Butan-1-ol</b>	<i>Oral</i>	Non-applicable	Non-applicable	3125 mg/kg	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	Non-applicable	55 mg/m <sup>3</sup>
<b>Cyclohexane</b>	<i>Oral</i>	Non-applicable	Non-applicable	59.4 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	1186 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	412 mg/m <sup>3</sup>	412 mg/m <sup>3</sup>	206 mg/m <sup>3</sup>	206 mg/m <sup>3</sup>
<b>Ethylbenzene</b>	<i>Oral</i>	Non-applicable	Non-applicable	1.6 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	Non-applicable	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	15 mg/m <sup>3</sup>	Non-applicable
<b>Heptane</b>	<i>Oral</i>	Non-applicable	Non-applicable	149 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	149 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	447 mg/m <sup>3</sup>	Non-applicable



## STANDARD CELLULOSE THINNER

<b>n-Hexane</b>	<i>Oral</i>	Non-applicable	Non-applicable	4 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	5.3 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	16 mg/m <sup>3</sup>	Non-applicable
<b>Propan-2-ol</b>	<i>Oral</i>	Non-applicable	Non-applicable	26 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	319 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	89 mg/m <sup>3</sup>	Non-applicable
<b>Propan-1-ol</b>	<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>	1036 mg/m <sup>3</sup>	Non-applicable	14.8 mg/m <sup>3</sup>	Non-applicable
<b>Xylene (mixture of isomers)</b>	<i>Oral</i>	Non-applicable	Non-applicable	1.6 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	108 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	174 mg/m <sup>3</sup>	174 mg/m <sup>3</sup>	14.8 mg/m <sup>3</sup>	Non-applicable
<b>Ethanol</b>	<i>Oral</i>	Non-applicable	Non-applicable	87 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	206 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	950 mg/m <sup>3</sup>	114 mg/m <sup>3</sup>	Non-applicable
<b>Acetone</b>	<i>Oral</i>	Non-applicable	Non-applicable	62 mg/m <sup>3</sup>	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	62 mg/Kg	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	200 mg/m <sup>3</sup>	Non-applicable
<b>Methyl Ethyl Ketone</b>	<i>Oral</i>	Non-applicable	Non-applicable	31 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	412 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	106 mg/m <sup>3</sup>	Non-applicable



## STANDARD CELLULOSE THINNER

<b>n-Butyl Acetate Butyl ethanoate</b>	<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 <sup>3</sup>	859.7 mg/m <sup>3</sup>	102.34 mg/m <sup>3</sup>	102.34 mg/m <sup>3</sup>
<b>Ethyl acetate</b>	<i>Oral</i>	Non-applicable	Non-applicable	4.5 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	37 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	734 mg/m <sup>3</sup>	734 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>	367 mg/m <sup>3</sup>
<b>Methanol</b>	<i>Oral</i>	Non-applicable	Non-applicable	6.87 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	3.42 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	2.97 mg/m <sup>3</sup>	Non-applicable
<b>Methyl Acetoacetate</b>	<i>Oral</i>	Non-applicable	Non-applicable	4.17 mg/Kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	4.17 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	Non-applicable	Non-applicable	6.25 mg/m <sup>3</sup>	Non-applicable
<b>4-Methyl-Pentan-2- One</b>	<i>Oral</i>	Non-applicable	Non-applicable	4.2 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	4.2 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	155.2 mg/m <sup>3</sup>	155.2 mg/m <sup>3</sup>	14.7 mg/m <sup>3</sup>	14.7 mg/m <sup>3</sup>
<b>Propyl acetate</b>	<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>	298 mg/m <sup>3</sup>	298 mg/m <sup>3</sup>	149 mg/m <sup>3</sup>	149 mg/m <sup>3</sup>
<b>Tetrahydrofuran</b>	<i>Oral</i>	Non-applicable	Non-applicable	15 mg/kg bw/day	Non-applicable
	<i>Dermal</i>	Non-applicable	Non-applicable	15 mg/Kg bw/day	Non-applicable
	<i>Inhalation</i>	150 mg/m <sup>3</sup>	150 mg/m <sup>3</sup>	62 mg/m <sup>3</sup>	75 mg/m <sup>3</sup>



**STANDARD CELLULOSE THINNER***PNEC*

<i>Ingredient name:</i>	<i>Environmental sphere</i>	<i>PNEC value</i>
<b>Toluene</b>	<i>Fresh water</i>	0.68 mg/L
	<i>Marine water</i>	0.68 mg/L
	<i>Fresh water sediment</i>	16.39 mg/kg
	<i>Marine water sediment</i>	16.39 mg/kg
	<i>Sewage Treatment</i>	13.61 mg/L
	<i>Soil</i>	2.89 mg/kg
<b>Butan-2-ol</b>	<i>Fresh water</i>	47.1 mg/L
	<i>Marine water</i>	47.1 mg/L
	<i>Fresh water sediment</i>	196.19 mg/kg
	<i>Marine water sediment</i>	196.19 mg/kg
	<i>Sewage Treatment</i>	761 mg/L
	<i>Soil</i>	11.58 mg/kg
<b>Butan-1-ol</b>	<i>Fresh water</i>	0.082 mg/L
	<i>Marine water</i>	0.0082 mg/L
	<i>Fresh water sediment</i>	0.178 mg/kg
	<i>Marine water sediment</i>	0.0178 mg/kg
	<i>Sewage Treatment</i>	2476 mg/L
	<i>Soil</i>	0.015 mg/kg
<b>Cyclohexane</b>	<i>Fresh water</i>	0.207 mg/L
	<i>Marine water</i>	0.207 mg/L
	<i>Fresh water sediment</i>	3267 mg/kg
	<i>Marine water sediment</i>	3267 mg/kg
	<i>Sewage Treatment</i>	No data available
	<i>Soil</i>	2.99 mg/kg

**STANDARD CELLULOSE THINNER**

<b>Ethylbenzene</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.1 mg/L 0.01 mg/L 13.7 mg/kg No data available 9.6 mg/L 2.68 mg/kg
<b>Heptane</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.03 mg/L 0.03 mg/L 4.4 mg/kg 4.4 mg/kg No data available 1.8 mg/kg
<b>n-Hexane</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.086 mg/L 0.086 mg/L 1.0 mg/kg 1.0 mg/kg No data available 0.44 mg/kg
<b>Propan-2-ol</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	140.9 mg/L 140.9 mg/L 552 mg/kg 552 mg/kg 2251 mg/L 28 mg/kg
<b>Propan-1-ol</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	10 mg/L 1.0 mg/L 22.8 mg/kg 2.28 mg/kg 96 mg/L 2.2 mg/kg

**STANDARD CELLULOSE THINNER**

<b>Xylene</b> (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
<b>Ethanol</b>	<i>Fresh water</i>	0.96 mg/L
	<i>Marine water</i>	0.79 mg/L
	<i>Fresh water sediment</i>	3.6 mg/kg
	<i>Marine water sediment</i>	2.9 mg/kg
	<i>Sewage Treatment</i>	580 mg/L
	<i>Soil</i>	0.63 mg/kg
<b>Acetone</b>	<i>Fresh water</i>	10.6 mg/L
	<i>Marine water</i>	1.06 mg/L
	<i>Fresh water sediment</i>	30.4 mg/kg
	<i>Marine water sediment</i>	3.04 mg/kg
	<i>Sewage Treatment</i>	100 mg/L
	<i>Soil</i>	29.5 mg/kg
<b>Methyl Ethyl Ketone</b>	<i>Fresh water</i>	55.8 mg/L
	<i>Marine water</i>	55.8 mg/L
	<i>Fresh water sediment</i>	284.7 mg/kg
	<i>Marine water sediment</i>	284.7 mg/kg
	<i>Sewage Treatment</i>	709 mg/L
	<i>Soil</i>	22.5 mg/kg
<b>n-Butyl Acetate</b> <b>Butyl ethanoate</b>	<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

**STANDARD CELLULOSE THINNER**

<b>Ethyl acetate</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.26 mg/L 0.026 mg/L 0.34 mg/kg 0.034 mg/kg No data available 0.22 mg/kg
<b>Methanol</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	154 mg/L 15.4 mg/L 570.4 mg/kg No data available 100 mg/L 23.5 mg/kg
<b>Methyl Acetoacetate</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.1 mg/L 0.01 mg/L 0.0801 mg/kg 0.008 mg/kg 50 mg/L 0.0183 mg/kg
<b>4-Methyl-Pentan-2-One</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.6 mg/L 0.06 mg/L 8.27 mg/kg 0.83 mg/kg 27.5 mg/L 1.3 mg/kg
<b>Propyl acetate</b>	<i>Fresh water</i> <i>Marine water</i> <i>Fresh water sediment</i> <i>Marine water sediment</i> <i>Sewage Treatment</i> <i>Soil</i>	0.06 mg/L 0.006 mg/L 0.16 mg/kg 0.016 mg/kg 1.0 mg/L 0.0215 mg/kg

**STANDARD CELLULOSE THINNER**

<b>Tetrahydrofuran</b>	<i>Fresh water</i>	4.32 mg/L
	<i>Marine water</i>	0.432 mg/L
	<i>Fresh water sediment</i>	23.3 mg/kg
	<i>Marine water sediment</i>	2.33 mg/kg
	<i>Sewage Treatment</i>	4.6 mg/L
	<i>Soil</i>	2.13 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.

**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/manufacturer 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.

**STANDARD CELLULOSE THINNER**

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.

<b>9. SECTION 9: Physical and Chemical Properties</b>
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**9.1. Information on basic physical and chemical properties*****Appearance***

<b><i>Physical State</i></b>	Liquid
<b><i>Colour</i></b>	Various
<b><i>Odour</i></b>	Unpleasant
<b><i>Odour threshold</i></b>	Not available
<b><i>pH</i></b>	Not available
<b><i>Melting point</i></b>	Not available
<b><i>Freezing point</i></b>	Not available
<b><i>Initial boiling point</i></b>	Not available
<b><i>Boiling range</i></b>	55 - 160
<b><i>Flash point</i></b>	< 21C
<b><i>Evaporation rate</i></b>	Not available
<b><i>Flammability (solid, gas)</i></b>	Not available
<b><i>Upper/lower Flammability or Explosive limits</i></b>	36.5 / 1
<b><i>Vapour pressure</i></b>	Not available
<b><i>Vapour density</i></b>	Not available
<b><i>Relative density</i></b>	0.8 – 0.9
<b><i>Solubility(ies)</i></b>	Not available
<b><i>Partition coefficient n-octanol/water</i></b>	Not available
<b><i>Auto-ignition temperature</i></b>	> 203C
<b><i>Decomposition</i></b>	

**STANDARD CELLULOSE THINNER**

<i>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.

**10.6 Hazardous decomposition products**

Decomposition products may include the following materials: carbon monoxide, carbon dioxide and smoke.

**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>
<b>Toluene</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>3500 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>4200 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>20 mg/L	4 hrs
<b>Butan-2-ol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	2193 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rat	>2000 mg/kg bw	24hrs
	<i>Inhalation – LC<sub>50</sub></i>	No data available	No data available	



## STANDARD CELLULOSE THINNER

<b>Butan-1-ol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	790 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rat	>2000 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	No data available	No data available	
<b>Cyclohexane</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>5000 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>2000 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>5540 ppm	4 hrs
<b>Ethylbenzene</b>	<i>Oral – LD<sub>50</sub></i>	Rat	3500 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>5000 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rabbit	4000 ppm	4 hrs
<b>Heptane</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>5000 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>2000 mg/kg bw	
	<i>Inhalation – LC<sub>0</sub></i>	Rat	>29.29 mg/L air	4 hrs
<b>n-Hexane</b>	<i>Oral – LD<sub>50</sub></i>	Rat	25000 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	3000 mg/kg bw	
	<i>Inhalation – LC<sub>0</sub></i>	Rat	73680 ppm	4 hrs
<b>Propan-2-ol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	5045 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rat	12800 mg/kg bw	
	<i>Inhalation – LC<sub>0</sub></i>	Rat	72.6 mg/L	4 hrs
<b>Propan-1-ol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	1870 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	4032 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	13548 ppm	4 hrs



**STANDARD CELLULOSE THINNER**

<b>Xylene</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>3500 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>4200 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>20 mg/L	4 hrs
<b>Ethanol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>7000 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>15800 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	51 mg/L	4 hrs
<b>Acetone</b>	<i>Oral – LD<sub>50</sub></i>	Rat	5800 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>2000 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>20 mg/L	4 hrs
<b>Methyl Ethyl Ketone</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>2193 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>5000 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Mouse	32000 mg/m <sup>3</sup>	4 hrs
<b>n-Butyl Acetate Butyl ethanoate</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>10700 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	17600 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>21 mg/L	4 hrs
<b>Ethyl acetate</b>	<i>Oral – LD<sub>50</sub></i>	Rat	5620 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>2000 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Mouse	45000 mg/m <sup>3</sup>	2 hrs
<b>Methanol</b>	<i>Oral – LD<sub>50</sub></i>	Rat	>5620 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	17100 mg/kg	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	128.2 mg/L	4 hrs



## STANDARD CELLULOSE THINNER

Methyl Acetoacetate	<i>Oral – LD<sub>50</sub></i>	Rat	3228 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rat	>2000 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rabbit	49 mg/L air	4 hrs
4-Methyl-Pentan-2-One	<i>Oral – LD<sub>50</sub></i>	Rat	2080 mg/kg	
	<i>Dermal – LD<sub>0</sub></i>	Rat	>2000 mg/kg bw	24 hrs
	<i>Inhalation – LC<sub>50</sub></i>	Rat	11.6 mg/L air	4 hrs
Propyl acetate	<i>Oral – LD<sub>50</sub></i>	Rat	9370 mg/kg	
	<i>Dermal – LD<sub>50</sub></i>	Rabbit	>17800 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	32 mg/L air	4 hrs
Tetrahydrofuran	<i>Oral – LD<sub>50</sub></i>	Rat	>1650 mg/kg bw	
	<i>Dermal – LD<sub>50</sub></i>	Rat	>2000 mg/kg bw	
	<i>Inhalation – LC<sub>50</sub></i>	Rat	>5000 ppm	6 hrs

***Skin corrosion/  
irritation***

There may be redness or whiteness of the skin in the area of exposure. An itchy rash may occur at the site of contact.

***Serious eye  
damage/irritation***

There may be irritation and pain.

***Respiratory or  
skin sensitization***

There may be irritation of the throat with a feeling of tightness in the chest. There may be a feeling of tightness in the chest with shortness of breath.

***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.

**STANDARD CELLULOSE THINNER***Specific target organ toxicity - single exposure*

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 - 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, as it does not 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>
<b>Toluene</b>	<i>LC<sub>50</sub></i>	Fish - <i>Oncorhynchus mykiss</i> (Rainbow Trout)	7.63 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	8 mg/L	24 hrs
	<i>EC<sub>50</sub></i>	Algae – <i>Chlorella vulgaris</i> (Fresh water algae)	245 mg/L	24 hrs
<b>Butan-2-ol</b>	<i>LC<sub>50</sub></i>	Fish - <i>Pimephales promelas</i> (fathead minnow)	3670 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	3750 mg/L	24 hrs
	<i>EC<sub>50</sub></i>	Algae – <i>Scenedesmus quadricauda</i>	95 mg/L	168 hrs
<b>Butan-1-ol</b>	<i>LC<sub>50</sub></i>	Fish - <i>Pimephales promelas</i> (fathead minnow)	100 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	100 mg/L	7 days
	<i>EC<sub>50</sub></i>	Algae	No data available	



## STANDARD CELLULOSE THINNER

Cyclohexane	<i>LC<sub>50</sub></i>	Fish - Pimephales promelas (fathead minnow)	4.53 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	0.9 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – Selenastrum capricornutum	9.317 mg/L	72 hrs
Ethylbenzene	<i>LC<sub>50</sub></i>	Fish	4.2 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	2.93 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae	7.2 mg/L	48 hrs
Heptane	<i>LL<sub>50</sub></i>	Fish - Oncorhynchus mykiss (Rainbow Trout)	7.738 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	1.5 mg/L	48 hrs
	<i>EL<sub>50</sub></i>	Algae	4.338 mg/L	72 hrs
n-Hexane	<i>LC<sub>50</sub></i>	Fish - Oryzias latipes (Killifish)	>1 mg/L	48 hrs
	<i>LC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	45 mmol/m <sup>3</sup>	48 hrs
	<i>EC<sub>50</sub></i>	Algae - C. pyreniodosa	2.66% v/v	10-14 days
Propan-2-ol	<i>LC<sub>50</sub></i>	Fish - Pimephales promelas (fathead minnow)	9640 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	13299 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae - Scenedesmus subspicatus	1000 mg/L	72 hrs
Propan-1-ol	<i>LC<sub>50</sub></i>	Fish - Pimephales promelas (fathead minnow)	4555 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	>100 mg/L	21 days
	<i>EC<sub>50</sub></i>	Algae - Pseudokirchneriella subcapitata	9170 mg/L	48 hrs

**STANDARD CELLULOSE THINNER**

<b>Xylene (mixture of isomers)</b>	<i>LC<sub>50</sub></i>	Fish - Oncorhynchus mykiss	13.5 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Gammarus lacustris	0.6 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Algae – Skeletonema costatum	10 mg/L	72 hrs
<b>Ethanol</b>	<i>LC<sub>50</sub></i>	Fish - Oncorhynchus mykiss	13000 mg/L	96 hrs
	<i>LC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	12340 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – Chlorella vulgaris	275 mg/L	72 hrs
<b>Acetone</b>	<i>LC<sub>50</sub></i>	Fish - Salmo gairdneri,	>100 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	>100 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – Pseudokirchneriella subcapitata	>100 mg/L	96 hrs
<b>Methyl Ethyl Ketone</b>	<i>LC<sub>50</sub></i>	Fish - Pimephales promelas (fathead minnow)	3,130 - 3,320 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	7,060 mg/L	24 hrs
	<i>EC<sub>50</sub></i>	Algae	No data available	
<b>n-Butyl Acetate Butyl ethanoate</b>	<i>LC<sub>50</sub></i>	Fish - Lepomis macrochirus (Bluegill)	100 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Daphnia magna (Water flea)	44 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – Desmodesmus subspicatus (Scenedesmus subspicatus)	674.7 mg/L	72 hrs
<b>Ethyl acetate</b>	<i>LC<sub>50</sub></i>	Fish - Salmo gairdneri,	>100 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - Daphnia magna (Water flea)	>100 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – Desmodesmus subspicatus	>100 mg/L	72 hrs



## STANDARD CELLULOSE THINNER

Methanol	<i>LC<sub>50</sub></i>	Fish - <i>Leopomis macrochirus</i> :	15400 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	>10000 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – <i>Selenastrum capricornutum</i> :	22000 mg/L	96 hrs
Methyl Acetoacetate	<i>LC<sub>50</sub></i>	Fish - <i>Pimephales promelas</i> (fathead minnow)	> 111.4 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	>100 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – <i>Desmodesmus subspicatus</i>	100 mg/L	72 hrs
4-Methyl-Pentan-2-One	<i>LC<sub>50</sub></i>	Fish - <i>Danio rerio</i> (Zebrafish)	>179 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	3623 mg/L	24 hrs
	<i>TGK (8d)</i>	Algae – <i>Scenedesmus quadricauda</i>	725 mg/L	8 days
Propyl acetate	<i>LC<sub>50</sub></i>	Fish - <i>Pimephales promelas</i> (fathead minnow)	60 mg/L	96 hrs
	<i>EC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	91.5 mg/L	48 hrs
	<i>EC<sub>50</sub></i>	Algae – <i>Pseudokirchneriella subcapitata</i>	672 mg/L	72 hrs
Tetrahydrofuran	<i>LC<sub>50</sub></i>	Fish - <i>Pimephales promelas</i> (fathead minnow)	2160 mg/L	96 hrs
	<i>LC<sub>50</sub></i>	Crustacean - <i>Daphnia magna</i> (Water flea)	3485 ppm	48 hrs
	<i>TTC (8d)</i>	Algae – <i>Scenedesmus quadricauda</i>	3700 mg/L	8 days

## 12.2. Persistence and degradability

<i>Ingredient name:</i>	<i>Concentration</i>	<i>Duration of test</i>	<i>% Biodegradability</i>
Toluene	100 mg/L	14 days	100
Butan-2-ol	100 mg/L	14 days	73.5
Butan-1-ol	3 mg/L	15 days	92

**STANDARD CELLULOSE THINNER**

Cyclohexane	34 mg/L	28 days	77
Ethylbenzene	22 mg/L	28 days	70
Heptane	3.3 mg/L	10 days	70
n-Hexane	100 mg/L	10 days	83
Propan-2-ol	100 mg/L	14 days	86
Propan-1-ol	3 mg/L	20 days	75
Xylene	100 mg/L	28 days	100
Ethanol	3 mg/L	20 days	96
Acetone	7.8 µg/L	28 days	90.9
Methyl Ethyl Ketone	2 mg/L	28 days	98
n-Butyl Acetate Butyl ethanoate	3 mg/L	28 days	83
Ethyl acetate	3 mg/L	20 days	69
Methanol			Readily biodegradable
Methyl Acetoacetate	50 mg/L	28 days	94
4-Methyl-Pentan-2-One	102 mg/L	28 days	83
Propyl acetate	3 mg/L	20 days	62
Tetrahydrofuran		52 days	61

**12.3. Bioaccumulative potential**

<i>Ingredient name:</i>	<i>BCF</i>	<i>Log P<sub>ow</sub></i>	<i>Potential</i>
Toluene	13	2.73	Low
Butan-2-ol	3	0.61	Low
Butan-1-ol	1	0.88	Low
Cyclohexane	167	3.44	
Ethylbenzene	1	3.15	Low

**STANDARD CELLULOSE THINNER**

Heptane	552	4.66	High
n-Hexane	501.187	4	High
Propan-2-ol	3	0.05	Low
Propan-1-ol	0.88		Low
Xylene	25.9	3.2	Low
Ethanol	10	3	Low
Acetone	3	-0.24	Not bioaccumulative
Methyl Ethyl Ketone	0.64	0.61	Not bioaccumulative
n-Butyl Acetate Butyl ethanoate	15.3	2.3	Low
Ethyl acetate	30		Low
Methanol	10	-0.77	Low
Methyl Acetoacetate		-0.69	Low
4-Methyl-Pentan-2-One	No data available	No data available	No data available
Propyl acetate	No data available	No data available	No data available
Tetrahydrofuran	1		Not bioaccumulative

**12.4. Mobility in soil**

<i>Ingredient name:</i>	<i>K<sub>oc</sub></i>	<i>HLC</i> <i>(Henry's law constant)</i>	<i>Surface tension</i>
Toluene	178	6.728E+2 Pa.m <sup>3</sup> /mol	27930 N/m (25 °C)
Butan-2-ol	No data available	No data available	24330 N/m (25 °C)
Butan-1-ol	2.44	5.39E-2 Pa·m <sup>3</sup> /mol	25670 N/m (25 °C)



**STANDARD CELLULOSE THINNER**

Cyclohexane	770	14, 900 Pa m <sup>3</sup> /mol @ 20°C	No data available
Ethylbenzene	446.1	800 Pa m <sup>3</sup> /mol @ 25°C	No data available
Heptane	239.7	No data available	No data available
n-Hexane	2187.76	No data available	No data available
Propan-2-ol	1.5	8.207E-1 Pa·m <sup>3</sup> /mol	22400 N/m (25 °C)
Propan-1-ol	No data available	No data available	No data available
Xylene (mixture of isomers)	202	524.9 Pa·m <sup>3</sup> /mol	No data available
Ethanol	1	0.461 Pa m <sup>3</sup> /mol @ 25°C	No data available
Acetone	No data available	2.929 Pa m <sup>3</sup> /mol	0.0237 N/m
Methyl Ethyl Ketone	30	5.765E+0 Pa·m <sup>3</sup> /mol	23960 N/m (25 °C)
n-Butyl Acetate Butyl ethanoate	< 70	41.6 Pa m <sup>3</sup> /mol @ 25°C	No data available
Ethyl acetate	No data available	No data available	No data available
Methanol	9	0.461 Pa m <sup>3</sup> /mol @ 25°C	No data available
Methyl Acetoacetate	1.035	0.012 Pa m <sup>3</sup> /mol @ 25°C	No data available
4-Methyl-Pentan-2-One	19	13.983 Pa m <sup>3</sup> /mol @ 25°C	No data available
Propyl acetate	11.31	22.08994 Pa m <sup>3</sup> /mol @ 25°C	No data available
Tetrahydrofuran	23.32	7.1 x 10 <sup>-5</sup> atm·m <sup>3</sup> /mole	No data available

**12.5. Results of PBT and vPvB assessment**

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

**STANDARD CELLULOSE THINNER****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.

**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>
<b>14.1.</b>	<i>UN number</i>	<b>UN1263</b>	<b>UN1263</b>	<b>UN1263</b>	<b>UN1263</b>
<b>14.2.</b>	<i>UN proper shipping name</i>	Paint related material	Paint related material	Paint related material	Paint related material
<b>14.3.</b>	<i>Transport hazard class(es)</i>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>14.4.</b>	<i>Packing group</i>	<b>II</b>	<b>II</b>	<b>II</b>	<b>II</b>
<b>14.5.</b>	<i>Environmental hazards -----</i>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
	<i>Marine pollutant -----</i>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

**STANDARD CELLULOSE THINNER**

14.6	<i>Special precautions for user</i>				
	<i>Tunnel restriction code</i>	D/E			
	<i>Limited quantities</i>	5L		5L	

<b>15. SECTION 15: Regulatory information</b>
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**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.

<b>16. SECTION 16: Other information</b>
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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.*

**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.
RID	-	International carriage of dangerous goods by rail
ADN	-	European Agreement concerning the International carriage of Dangerous Goods by Inland Waterways.
IMDG	-	International maritime dangerous goods code.
IATA	-	International Air Transport Association.
ICAO	-	International Civil Aviation Organisation.
BCF	-	Bio Concentration Factor
LD <sub>50</sub>	-	Lethal Dose 50
LL <sub>50</sub>	-	Lethal Load 50
CL <sub>50</sub>	-	Lethal Concentration 50
EC <sub>50</sub>	-	Effective Concentration 50
EL <sub>50</sub>	-	Effective Load 50



## STANDARD CELLULOSE THINNER

Log P <sub>ow</sub>	-	Octanol-water partition coefficient
K <sub>oc</sub>	-	Partition coefficient of organic carbon
TTC	-	Threshold of Toxicological Concern.
TGK	-	Toxicity Threshold.

### *Full Text of Physical Hazards*

H225 – Highly flammable liquid and vapour.  
H226 - Flammable liquid and vapour.

### *Full Text of Health Hazards*

H301 – Toxic if swallowed.  
H302 – Harmful if swallowed.  
H304 – May be fatal if swallowed and enters airways.  
H311 – Toxic in contact with skin.  
H312 - Harmful in contact with skin.  
H315 - Causes skin irritation.  
H318 – Causes serious eye damage.  
H319 – Causes serious eye irritation.  
H331 – Toxic if inhaled.  
H332 – Harmful if inhaled.  
H335 – May cause respiratory irritation.  
H336 - May cause drowsiness or dizziness.  
H351 – Suspected of causing cancer.  
H361d – Suspected of damaging the unborn child.  
H361f - Suspected of damaging fertility.  
H370 – Causes damage to organs.  
H373 – May cause damage to organs through prolonged or repeated exposure.

### *Full Text of Environmental Hazards*

H400 – Very toxic to aquatic life.  
H410 – Very toxic to aquatic life with long lasting effects.  
H411 – Toxic to aquatic life with long lasting effects.

### *Full Text of CLP/GHS Classifications*

Flam. Liq. 2,	H225	Highly flammable liquid and vapour.
Flam. Liq. 3	H226	Flammable liquid and vapour
Acute Tox. 4	H312+H332	Harmful in contact with skin or if inhaled.
Skin Irrit. 2	H315	Causes skin irritation.
Eye Dam. 1,	H318	Causes serious eye damage.
Acute Tox. 3,	H331	Toxic if inhaled.
Acute Tox. 4	H332	Harmful if inhaled.
STOT SE 3	H335	May cause respiratory irritation.
STOT SE 3,	H336	May cause drowsiness or dizziness.
Carc. 2,	H351	Suspected of causing cancer.
Repr. 2,	H361f	Suspected of damaging fertility.
STOT RE 2,	H373	May cause damage to organs through prolonged or repeated exposure.

**STANDARD CELLULOSE THINNER**

Aquatic Chronic 2,	H411	Toxic to aquatic life with long lasting effects.
EUH 019 EUH066		May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.

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**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.

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