Report Date : 04/01/2012 Revision Date 30/09/2011

Revision 17

Supersedes date 18/01/2006 v16



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# SAFETY DATA SHEET TETRION WOOD HARDENER

# SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

# 1.1. Product identifier

Product name TETRION WOOD HARDENER

Product No. TWH500

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

# 1.3. Details of the supplier of the safety data sheet

Supplier TETROSYL LIMITED

**BEVIS GREEN WORKS** 

WALMERSLEY

BURY BL9 6RE 0161 764 5981 0161 797 5899 info@tetrosyl.com

# 1.4. Emergency telephone number

0161 764 5981

# **SECTION 2: HAZARDS IDENTIFICATION**

# 2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xi;R36. F;R11. R66, R67.

#### 2.2. Label elements

**Detergent Labelling:** 

5 - < 15% Aromatic hydrocarbons.

Labelling





Irritant Highly flammable

Risk Phrases

R11 Highly flammable R36 Irritating to eyes.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Safety Phrases

S2 Keep out of the reach of children.

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition - No smoking.

S25 Avoid contact with eyes.

S26 In case of contact with eyes, rinse immediately with plenty of

water and seek medical advice.

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conscious).

S37 Wear suitable gloves. S46 If swallowed, seek medical advice immediately and show this container or label. S51 Use only in well-ventilated areas. S56 Dispose of this material and its container to hazardous or special waste collection point. S64 If swallowed, rinse mouth with water (only if the person is

# 2.3. Other hazards

Classification (EC 1272/2008)

Flam. Liq. 2 - H225

Acute Tox. 4 - H332

# SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures			
2-METHOXY-1-METHYLETHYL	<0.5		
CAS-No.: 108-65-6	EC No.: 203-603-9		
Classification (EC 1272/2008) Flam. Liq. 3 - H226		Classification (67/548/EEC) R10	
ACETONE			60-100%
CAS-No.: 67-64-1	EC No.: 200-662-2		
Classification (EC 1272/2008) Flam. Liq. 2 - H225 EUH066 Eye Irrit. 2 - H319 STOT SE 3 - H336		Classification (67/548/EEC) F;R11 Xi;R36 R66 R67	
BUTYL ACETATE -norm			<1%
CAS-No.: 123-86-4	EC No.: 204-658-1		
Classification (EC 1272/2008) Flam. Liq. 3 - H226 EUH066 STOT SE 3 - H336		Classification (67/548/EEC) R10 R66 R67	
ETHYLBENZENE			1-5%
CAS-No.: 100-41-4	EC No.: 202-849-4		

Classification (67/548/EEC)

F;R11

Xn;R20

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METHYL METHACRYLATE			<0.1%
CAS-No.: 80-62-6	EC No.: 201-297-1		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Flam. Liq. 2 - H225		F;R11	
Skin Irrit. 2 - H315		R43	
Skin Sens. 1 - H317		Xi;R37/38	
STOT SE 3 - H335			

CAS-No.: 108-88-3	EC No.: 203-625-9		
Classification (EC 1272/2008)		Classification (67/548/EEC)	
Flam. Liq. 2 - H225		F;R11	
Skin Irrit. 2 - H315		Repr. Cat. 3;R63	
Repr. 2 - H361d		Xn;R48/20,R65	
STOT SE 3 - H336		Xi;R38	
STOT RE 2 - H373		R67	
Asp. Tox. 1 - H304			

1-5%

XYLENE			5-10%
CAS-No.: 1330-20-7	EC No.: 215-535-7		
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 4 - H312		Classification (67/548/EEC) R10 Xn;R20/21	
Acute Tox. 4 - H332 Skin Irrit. 2 - H315		Xi;R38	

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

# **SECTION 4: FIRST AID MEASURES**

# 4.1. Description of first aid measures

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# General information

Remove affected person from source of contamination. NOTE! Effects may be delayed. Keep affected person under observation. Get medical attention. CAUTION! First aid personnel must be aware of own risk during rescue! Move the exposed person to fresh air at once. NOTE! Keep affected person away from heat, sparks and flames! Perform artificial respiration if breathing has stopped. Place unconscious person on the side in the recovery position and ensure breathing can take place.

Inhalation

Remove victim immediately from source of exposure. Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions. Place unconscious person on the side in the recovery position and ensure breathing can take place. Perform artificial respiration if breathing has stopped.

Ingestion

Get medical attention immediately! Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Transport immediately to hospital and bring along these instructions. Do not give victim anything to drink if he is unconscious. NOTE! Keep affected person away from heat, sparks and flames! When risk of unconsciousness, place and transport the victim in secured side position.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Rinse with water. Use suitable lotion to moisturise skin. Get medical attention promptly if symptoms occur after washing.

Eye contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Do not rub eye. Get medical attention if any discomfort continues.

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

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure. NOTE! Effects may be delayed. Keep affected person under observation.

Inhalation.

In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death. Vapours may cause headache, fatigue, dizziness and nausea. In high concentrations, vapours are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.

Ingestion

May cause discomfort if swallowed. May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication. May cause chemical burns in mouth and throat. Central nervous system depression. Fumes from the stomach contents may be inhaled resulting in the same symptoms as inhalation.

Skin contact

Prolonged contact may cause redness, irritation and dry skin.

Eye contact

Irritation, burning, lachrymation, blurred vision after liquid splash.

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

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

#### **SECTION 5: FIREFIGHTING MEASURES**

# 5.1. Extinguishing media

Extinguishing media

Use: Foam, carbon dioxide or dry powder. Water. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

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

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

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#### **TETRION WOOD HARDENER**

Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

Unusual Fire & Explosion Hazards

HIGHLY FLAMMABLE! Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground to sources of ignition. May travel considerable distance to source of ignition and flash back. Specific hazards

Vapours may form explosive air mixtures even at room temperature. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

#### 5.3. Advice for firefighters

Special Fire Fighting Procedures

Avoid breathing fire vapours. Keep up-wind to avoid fumes. Be aware of risk of fire re-starting, and risk of explosion. Cool containers exposed to flames with water until well after the fire is out. Use water SPRAY only to cool containers! Do not put water on leaked material.

Protective equipment for fire-fighters

Leave danger zone immediately.

#### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet. In case of inadequate ventilation, use respiratory protection. Take precautionary measures against static discharges. Do not smoke, use open fire or other sources of ignition. Do not breathe vapour. Avoid contact with skin and eyes. In case of spills, beware of slippery floors and surfaces.

#### 6.2. Environmental precautions

Do not discharge into drains, water courses or onto the ground. Prevent entry into drains. Avoid discharge to the aquatic environment.

#### 6.3. Methods and material for containment and cleaning up

For waste disposal, see section 13. Stop leak if possible without risk. Collect with absorbent, non-combustible material into suitable containers. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Provide ventilation and confine spill. Do not allow runoff to sewer. Cover large spillages with alcohol-resistant foam.

# 6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see section 13.

#### **SECTION 7: HANDLING AND STORAGE**

#### 7.1. Precautions for safe handling

Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Keep away from heat, sparks and open flame. Risk of vapour concentration on the floor and in low-lying areas. Static electricity and formation of sparks must be prevented. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes. Observe good chemical hygiene practices. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Mechanical ventilation or local exhaust ventilation may be required.

# 7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks and open flame. Keep containers tightly closed. Keep upright. Keep in original container. Avoid contact with oxidising agents. Do not store near heat sources or expose to high temperatures. Store separated from: Oxidising material.

Storage Class

Flammable liquid storage.

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

The identified uses for this product are detailed in Section 1.2.

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### **TETRION WOOD HARDENER**

#### 8.1. Control parameters

Name	STD	TWA	- 8 Hrs	STEL -	- 15 Min	Notes
2-METHOXY-1-METHYLETHYL	WEL	50	274	100	548	
ACETATE		ppm(Sk)	mg/m3(Sk)	ppm(Sk)	mg/m3(Sk)	
ACETONE	WEL	500 ppm	1210	1500 ppm	3620	
			mg/m3		mg/m3	
BUTYL ACETATE -norm	WEL	150 ppm	724 mg/m3	200 ppm	966 mg/m3	
ETHYLBENZENE	WEL	100 ppm	441 mg/m3	125 ppm	552 mg/m3	Sk
ISO-BUTANOL	WEL	50 ppm	154 mg/m3	75 ppm	231 mg/m3	
METHYL METHACRYLATE	WEL	50 ppm	208 mg/m3	100 ppm	416 mg/m3	
TOLUENE	WEL	50 ppm	191 mg/m3	100 ppm	384 mg/m3	Sk
XYLENE	WEL	50 ppm	220 mg/m3	100 ppm	441 mg/m3	Sk

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

#### 8.2. Exposure controls

Protective equipment













Process conditions

Provide eyewash station.

Engineering measures

Provide explosion proof ventilation for high concentrations. Observe occupational exposure limits and minimize the risk of inhalation of vapours. All handling to take place in well-ventilated area.

Respiratory equipment

If ventilation is insufficient, suitable respiratory protection must be provided. Check that mask fits tight and change filter regularly. Use respiratory equipment with gas filter, type AX.

Hand protection

For prolonged or repeated skin contact use suitable protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

Eye protection

Wear approved, tight fitting safety glasses where splashing is probable.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke. Isolate contaminated clothing and wash before reuse.

#### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

# 9.1. Information on basic physical and chemical properties

Appearance

Colourless-pale yellow liquid.

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#### **TETRION WOOD HARDENER**

Initial boiling point and boiling 55.5-57.1

range

Melting point (°C)

Scientifically unjustified.

Relative density 0.865

Vapour density (air=1) Scientifically unjustified.

Vapour pressure

Scientifically unjustified.

Evaporation rate

Scientifically unjustified.

Decomposition temperature (°C)

Scientifically unjustified. Odour Threshold, Lower Scientifically unjustified. Odour Threshold, Upper

Scientifically unjustified.

Flash point Technically not feasible.

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Auto Ignition Temperature (°C)

Scientifically unjustified.

Flammability Limit - Lower(%)

Scientifically unjustified.

Flammability Limit - Upper(%)

Scientifically unjustified.

**Partition Coefficient** 

(N-Octanol/Water)

Scientifically unjustified.

Oxidising properties

Not available.

# 9.2. Other information

None.

# **SECTION 10: STABILITY AND REACTIVITY**

#### 10.1. Reactivity

The product may form explosive vapours/air mixtures even at normal room temperatures.

#### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

#### 10.3. Possibility of hazardous reactions

Not relevant

# 10.4. Conditions to avoid

Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.

### 10.5. Incompatible materials

Materials To Avoid

Strong oxidising substances.

# 10.6. Hazardous decomposition products

None at ambient temperatures. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

#### **SECTION 11: TOXICOLOGICAL INFORMATION**

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#### **TETRION WOOD HARDENER**

### 11.1. Information on toxicological effects

Toxicological information No information available

#### Aspiration hazard:

General information

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Contains small amounts of organic solvents. Extensive use of the product in areas with inadequate ventilation may result in hazardous vapour concentrations.

Inhalation

Vapours may irritate throat and respiratory system and cause headache, dizziness and dullness. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Contains organic solvents which in case of overexposure may depress the central nervous system causing dizziness and intoxication.

Ingestion

May cause internal injury. May cause nausea, headache, dizziness and intoxication. Harmful: may cause lung damage if swallowed. Pneumonia may be the result if vomited material containing solvents reaches the lungs. Skin contact

Prolonged contact may cause dryness of the skin. Repeated exposure may cause skin dryness or cracking. Eye contact

Irritating and may cause redness and pain. Spray and vapour in the eyes may cause irritation and smarting. Health Warnings

Prolonged and repeated contact with solvents over a long period may lead to permanent health problems.

Route of entry

Inhalation. Skin absorption. Ingestion. Skin and/or eye contact.

**Medical Symptoms** 

Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

**Medical Considerations** 

Risk of chemical pneumonia after aspiration.

# **SECTION 12: ECOLOGICAL INFORMATION**

#### **Ecotoxicity**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

#### 12.1. Toxicity

Acute Toxicity - Fish

Not available.

Acute Toxicity - Aquatic Invertebrates

Not available.

#### 12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

# 12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

Partition coefficient

Scientifically unjustified.

#### 12.4. Mobility in soil

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#### **TETRION WOOD HARDENER**

Adsorption/Desorption Coefficient

Not available.

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

Not Classified as PBT/vPvB by current EU criteria.

#### 12.6. Other adverse effects

Not available.

#### **SECTION 13: DISPOSAL CONSIDERATIONS**

General information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority. Do not puncture or incinerate even when empty.

#### 13.1. Waste treatment methods

Confirm disposal procedures with environmental engineer and local regulations. Make sure containers are empty before discarding (explosion risk). Empty containers must not be burned because of explosion hazard. Recover and reclaim or recycle, if practical.

#### **SECTION 14: TRANSPORT INFORMATION**

# 14.1. UN number

UN No. (ADR/RID/ADN) 1993 UN No. (IMDG) 1993 UN No. (ICAO) 1993

#### 14.2. UN proper shipping name

Proper Shipping Name FLAMMABLE LIQUID, N.O.S. (ACETONE, XYLENE)

#### 14.3. Transport hazard class(es)

ADR/RID/ADN Class 3

ADR/RID/ADN Class Class 3: Flammable liquids.

ADR Label No. 3
IMDG Class 3
ICAO Class/Division 3

Transport Labels



#### 14.4. Packing group

ADR/RID/ADN Packing group II
IMDG Packing group II
ICAO Packing group II

#### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant No.

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#### **TETRION WOOD HARDENER**

# 14.6. Special precautions for user

EMS F-E, S-E

Emergency Action Code 3YE Hazard No. (ADR) 33

# 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

#### **SECTION 15: REGULATORY INFORMATION**

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

**EU** Legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

#### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

#### **SECTION 16: OTHER INFORMATION**

**Revision Comments** 

NOTE: Lines within the margin indicate significant changes from the previous revision.

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Risk Phrases In Full

R10 Flammable

R20/21 Harmful by inhalation and in contact with skin.

R20 Harmful by inhalation.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through

inhalation.

R65 Harmful: may cause lung damage if swallowed.

R11 Highly flammable R36 Irritating to eyes.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R43 May cause sensitisation by skin contact.
R63 Possible risk of harm to the unborn child.

R66 Repeated exposure may cause skin dryness or cracking.

R41 Risk of serious damage to eyes.

R67 Vapours may cause drowsiness and dizziness.

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# **TETRION WOOD HARDENER**

#### Hazard Statements In Full

H319

EUH066 Repeated exposure may cause skin dryness or cracking.

Causes serious eye irritation.

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

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.

H373 May cause damage to organs << Organs>> through prolonged or repeated exposure.