



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

Manufacturer 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 (EC 1272/2008)

Physical and Chemical Hazards	Flam. Liq. 2 - H225
Human health	EUH066; Eye Irrit. 2 - H319; STOT SE 3 - H336
Environment	Not classified.

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

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

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

TETRION WOOD HARDENER

Signal Word	Danger		
Hazard Statements	H225	Highly flammable liquid and vapour.	
	H319	Causes serious eye irritation.	
	H336	May cause drowsiness or dizziness.	
Precautionary Statements	P101	If medical advice is needed, have product container or label at hand.	
	P102	Keep out of reach of children.	
	P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.	
	P233	Keep container tightly closed.	
	P271	Use only outdoors or in a well-ventilated area.	
	P261	Avoid breathing vapour/spray.	
	P280	Wear eye and face protection.	
	P305+351+338	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 or doctor/physician if you feel unwell.	
	P313	Get medical advice/attention.	
	P403+235	Store in a well-ventilated place. Keep cool.	
	P405	Store locked up.	
	P501	Dispose of contents/container in accordance with local regulations.	
	Supplementary Precautionary Statements	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.	
P264		Wash contaminated skin thoroughly after handling.	
P370+378		In case of fire: Use foam, carbon dioxide, dry powder or water fog for extinction.	
P303+361+353		IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P304+340		IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	
P337		If eye irritation persists:	
P403+233	Store in a well-ventilated place. Keep container tightly closed.		
Supplemental label information	EUH066	Repeated exposure may cause skin dryness or cracking.	

2.3. Other hazards**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

TETRION WOOD HARDENER

2-METHOXY-1-METHYLETHYL ACETATE		0.5 - < 1.0%
CAS-No.: 108-65-6	EC No.: 203-603-9	
Classification (EC 1272/2008) Flam. Liq. 3 - H226		Classification (67/548/EEC) R10
ACETONE		50.0 - <75.0%
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		3.0 - <5.0%
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		0.5 - < 1.0%
CAS-No.: 100-41-4	EC No.: 202-849-4	
Classification (EC 1272/2008) Flam. Liq. 2 - H225 Acute Tox. 4 - H332		Classification (67/548/EEC) F;R11 Xn;R20
ISO-BUTANOL		0.5 - < 1.0%
CAS-No.: 78-83-1	EC No.: 201-148-0	Registration Number: 01-2119484609-23-XXXX
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335 STOT SE 3 - H336		Classification (67/548/EEC) R10 Xi;R37/38,R41 R67

TETRION WOOD HARDENER

XYLENE		1.0 - <3.0%
CAS-No.: 1330-20-7	EC No.: 215-535-7	
Classification (EC 1272/2008)	Classification (67/548/EEC)	
Flam. Liq. 3 - H226	R10	
Acute Tox. 4 - H312	Xn;R20/21	
Acute Tox. 4 - H332	Xi;R38	
Skin Irrit. 2 - H315		

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

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General information

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.

TETRION WOOD HARDENER

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

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.

TETRION WOOD HARDENER**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**8.1. Control parameters**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
2-METHOXY-1-METHYLETHYL ACETATE	WEL	50 ppm(Sk)	274 mg/m3(Sk)	100 ppm(Sk)	548 mg/m3(Sk)	
ACETONE	WEL	500 ppm	1210 mg/m3	1500 ppm	3620 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	
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.

TETRION WOOD HARDENER**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.
Colour	Colourless.
Odour	Acetone, ketone.
Solubility	Soluble in water. Miscible with: Organic solvents.
Initial boiling point and boiling range (°C)	56°C
Melting point (°C)	-94°C
Relative density	0.845 20°C
Vapour density (air=1)	2.0
Vapour pressure	24.66 kPa 20°C
Evaporation rate	2 (EtEt=1)
pH-Value, Conc. Solution	7
Viscosity	<100 cP 20°C
Solubility Value (G/100G H ₂ O@20°C)	100
Decomposition temperature (°C)	Not determined.
Odour Threshold, Lower	Not determined.
Odour Threshold, Upper	Not determined.
Flash point (°C)	-17°C CC (Closed cup).
Auto Ignition Temperature (°C)	540°C
Flammability Limit - Lower(%)	2.5
Flammability Limit - Upper(%)	13
Partition Coefficient (N-Octanol/Water)	-0.24/0.58
Oxidising properties	Not available.

9.2. Other information

None.

Mol. Weight 58.09

Saturation Concentration 589

(ppm)

TETRION WOOD HARDENER**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**11.1. Information on toxicological effects**

Toxic Dose 1 - LD 50
>2000 mg/kg (oral rat)

Acute toxicity:

Acetone

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

Gas or vapour is harmful on prolonged exposure or in high concentrations.

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

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

This chemical can be hazardous when inhaled and/or touched. This chemical may cause skin/eye irritation and burns (corrosive). May cause severe internal injury. Vapour from this chemical can be hazardous when inhaled.

TETRION WOOD HARDENER

Route of entry

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

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

LC 50, 96 Hrs, Fish mg/l >100mg/l

Acetone

EC 50, 48 Hrs, Daphnia, mg/l >100mg/l

IC 50, 72 Hrs, Algae, mg/l >100mg/l

12.2. Persistence and degradability

Degradability

The product is easily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential

The product does not contain any substances expected to be bioaccumulating.

Partition coefficient -0.24/0.58

12.4. Mobility in soil

Mobility:

The product is soluble in water.

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

TETRION WOOD HARDENER

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 hazardsEnvironmentally Hazardous Substance/Marine Pollutant
No.**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

Not applicable.

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.

TETRION WOOD HARDENER**SECTION 16: OTHER INFORMATION**

Revision Comments

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

Revision Date 13/01/2015
Revision 18
Supersedes date 30/09/2011 v17
Safety Data Sheet Status Approved.

Risk Phrases In Full

R10 Flammable
R20/21 Harmful by inhalation and in contact with skin.
R20 Harmful by inhalation.
R11 Highly flammable
R36 Irritating to eyes.
R37/38 Irritating to respiratory system and skin.
R38 Irritating to skin.
R66 Repeated exposure may cause skin dryness or cracking.
R41 Risk of serious damage to eyes.
R67 Vapours may cause drowsiness and dizziness.

Hazard Statements In Full

H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H315 Causes skin irritation.
H226 Flammable liquid and vapour.
H332 Harmful if inhaled.
H312 Harmful in contact with skin.
H225 Highly flammable liquid and vapour.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
EUH066 Repeated exposure may cause skin dryness or cracking.