SAFETY DATA SHEET

TEKNOL AQUA 1412-01 - All variants

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

1.1 Product identifier

Product name : TEKNOL AQUA 1412-01 - All variants

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

Product use : Wood preservatives Apply this product only as specified on the label.

1.3 Details of the supplier of the safety data sheet

Teknos Group Oy, Takkatie 3, FI-00370 HELSINKI, FINLAND. Tel. +358 9 506 091.

e-mail address of person responsible for this SDS : Prod-safe@teknos.com

National contact

Teknos Ireland Limited, 52 Ballymoughan Road, Magherafelt, BT45 6HN, UK. Tel. +44 (0) 2879 301 472.

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : NHS: 111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Repr. 1B, H360D
Aquatic Chronic 2, H411

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 : H360D - May damage the unborn child.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection.
P273 - Avoid release to the environment.

Response : P391 - Collect spillage.
P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage : Not applicable.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

SECTION 2: Hazards identification

Hazardous ingredients : Contains: Propiconazole

Supplemental label elements : Contains Propiconazole and 3-iodo-2-propynyl-butyl carbamate. May produce an allergic reaction.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Restricted to professional users.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	REACH #: 01-2119489407-26 EC: 500-236-9 CAS: 68920-66-1	≤3	Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 3, H412	M [Acute] = 1	[1]
Propiconazole	EC: 262-104-4 CAS: 60207-90-1 Index: 613-205-00-0	<1	Acute Tox. 4, H302 Skin Sens. 1, H317 Repr. 1B, H360D Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1517 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]
3-iodo-2-propynyl-butyl carbamate	EC: 259-627-5 CAS: 55406-53-6 Index: 616-212-00-7	≤0.3	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 400 mg/kg ATE [Inhalation (dusts and mists)] = 0.67 mg/l M [Acute] = 10 M [Chronic] = 1	[1]
Tebuconazol	REACH #: 01-0000015329-67 EC: 403-640-2 CAS: 107534-96-3 Index: 603-197-00-7	≤0.3	Acute Tox. 4, H302 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 500 mg/kg M [Acute] = 1 M [Chronic] = 10	[1]
Bronopol	EC: 200-143-0 CAS: 52-51-7 Index: 603-085-00-8	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 307 mg/kg ATE [Dermal] = 1100 mg/kg M [Acute] = 10	[1]

SECTION 3: Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

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

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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.

Specific treatments : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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.

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. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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. Absorb with an inert 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

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.

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

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : 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. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. 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. 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. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200 tonnes	500 tonnes

7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific solutions : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
No exposure limit value known.	

Biological exposure indices

Product/ingredient name	Exposure indices
No exposure indices known.	

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be

required.

DNELs/DMELs

Product/ingredient name	Result
Dipropyleneglycolmethylether	**DNEL - General population - Long term - Oral** 36 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 37.2 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 121 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 283 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 308 mg/m³ Effects: Systemic
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	**DNEL - General population - Long term - Oral** 1.5 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 3.92 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Inhalation** 22.2 mg/m³ Effects: Systemic **DNEL - General population - Long term - Dermal** 75 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Dermal** 210 mg/kg bw/day Effects: Systemic
Propiconazole	**DNEL - General population - Long term - Oral** 0.08 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Dermal** 0.14 mg/kg bw/day Effects: Systemic **DNEL - General population - Long term - Inhalation** 0.24 mg/m³ Effects: Systemic **DNEL - Workers - Long term - Dermal** 0.38 mg/kg bw/day Effects: Systemic **DNEL - Workers - Long term - Inhalation** 1.35 mg/m³ Effects: Systemic
3-iodo-2-propynyl-butyl carbamate	**DNEL - Workers - Long term - Inhalation** 0.023 mg/m³

	Effects: Systemic **DNEL - Workers - Short term - Inhalation** 0.07 mg/m³ Effects: Systemic **DNEL - Workers - Short term - Inhalation** 1.16 mg/m³ Effects: Local **DNEL - Workers - Long term - Inhalation** 1.16 mg/m³ Effects: Local **DNEL - Workers - Long term - Dermal** 2 mg/kg bw/day Effects: Systemic
Bronopol	**DNEL - General population - Short term - Oral** 0.5 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 1.8 mg/m³ Effects: Systemic **DNEL - General population - Short term - Dermal** 2.1 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Dermal** 6 mg/kg bw/day Effects: Systemic **DNEL - Workers - Short term - Inhalation** 10.5 mg/m³ Effects: Systemic **DNEL - General population - Short term - Dermal** 4 µg/cm² Effects: Local **DNEL - General population - Long term - Dermal** 4 µg/cm² Effects: Local **DNEL - Workers - Short term - Dermal** 8 µg/cm² Effects: Local **DNEL - Workers - Long term - Dermal** 8 µg/cm² Effects: Local **DNEL - General population - Long term - Oral** 0.18 mg/kg bw/day Effects: Systemic **DNEL - General population - Short term - Inhalation** 0.6 mg/m³ Effects: Local **DNEL - General population - Long term - Inhalation** 0.6 mg/m³ Effects: Local

DNEL - General population - Long term - Inhalation
0.6 mg/m³
Effects: Systemic

DNEL - General population - Long term - Dermal
0.7 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Long term - Dermal
2 mg/kg bw/day
Effects: Systemic

DNEL - Workers - Short term - Inhalation
2.5 mg/m³
Effects: Local

DNEL - Workers - Long term - Inhalation
2.5 mg/m³
Effects: Local

DNEL - Workers - Long term - Inhalation
3.5 mg/m³
Effects: Systemic

PNECs

Not available.

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

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 : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Recommendations : Wear suitable gloves tested to EN374.

> 8 hours (breakthrough time):	Nitrile gloves. thickness > 0.3 mm
Not recommended	polyvinyl alcohol (PVA) gloves

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Filter type (spray application): A P

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.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Liquid.

Colour : Colourless.

Odour : Slight

Odour threshold : Not available.

Melting point/freezing point : Not available.

Initial boiling point and boiling range :

Ingredient name	°C	°F	Method
water	100	212	
Dipropyleneglycolmethylether	189.6	373.3	EU A.2

Flammability : Not available.

Lower and upper explosion limit : Lower: 1.1% ((2-methoxymethylethoxy)propanol)
Upper: 14% ((2-methoxymethylethoxy)propanol)

Flash point : Closed cup: >100°C (>212°F)

Auto-ignition temperature :

Ingredient name	°C	°F	Method
Dipropyleneglycolmethylether	207	404.6	EU A.15

Decomposition temperature : Not available.

pH : 7 to 9 [Conc. (% w/w): 100%]

Viscosity : Kinematic (40°C): >20.5 mm^2/s

Solubility(ies) :

Not available.

Solubility in water : Not available.

Partition coefficient: n-octanol/water : Not applicable.

Vapour pressure :

	Vapour Pressure at 20°C			Vapour pressure at 50°C		
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
water	17.5	2.3				

Relative density : Not available.

Density : 1 g/cm^3

Vapour density : Not available.

Particle characteristics

Median particle size : Not applicable.

SECTION 9: Physical and chemical properties

9.2 Other information

9.2.1 Information with regard to physical hazard classes

Explosive properties : Not available.

Oxidising properties : Not available.

9.2.2 Other safety characteristics

Not applicable.

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 : The 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 : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/ingredient name	Result
Propiconazole	**Rat - Oral - LD50** 1517 mg/kg **Rat - Dermal - LD50** >4000 mg/kg **Rat - Inhalation - LC50 Dusts and mists** 5.8 mg/l [4 hours]
3-iodo-2-propynyl-butyl carbamate	**Rat - Oral - LD50** 400 mg/kg **Rat - Dermal - LD50** >2000 mg/kg **Rat - Inhalation - LC50 Dusts and mists** 0.763 mg/l [4 hours] **Rat - Inhalation - LC50 Dusts and mists** 0.67 g/m³ [4 hours]
Tebuconazol	**Rat - Oral - LD50** 3352 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Ataxia Kidney, Ureter, and Bladder - Urine volume increased **Rat - Dermal - LD50** >5 g/kg **Rabbit - Dermal - LD50** >5000 mg/kg

	Rat - Inhalation - LC50 Vapour 0.371 g/m³ [4 hours]
Bronopol	**Rat - Dermal - LD50** 4750 mg/kg
	Rat - Oral - LD50 307 mg/kg
	Rat - Inhalation - LC50 Dusts and mists >0.588 mg/l [4 hours]

Conclusion/Summary [Product] : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
TEKNOL AQUA 1412-01	N/A	N/A	N/A	N/A	223.3
Propiconazole	1517	N/A	N/A	N/A	5.8
3-iodo-2-propynyl-butyl carbamate	400	N/A	N/A	N/A	0.67
Tebuconazol	500	N/A	N/A	N/A	N/A
Bronopol	307	1100	N/A	N/A	N/A

Skin corrosion/irritation

Product/ingredient name	Result
Dipropyleneglycolmethylether	**Rabbit - Skin - Mild irritant** Amount/concentration applied: 500 mg
Bronopol	**Human - Skin - Moderate irritant** Amount/concentration applied: 10 mg
	Rabbit - Skin - Mild irritant Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
	Rabbit - Skin - Moderate irritant Amount/concentration applied: 80 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Dipropyleneglycolmethylether	**Human - Eyes - Mild irritant** Amount/concentration applied: 8 mg
	Rabbit - Eyes - Mild irritant Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
3-iodo-2-propynyl-butyl carbamate	**Rabbit - Eyes - Severe irritant**

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

SECTION 11: Toxicological information

Respiratory or skin sensitization

Product/ingredient name	Result
Propiconazole	**Guinea pig - skin** Result: Sensitising
3-iodo-2-propynyl-butyl carbamate	**Guinea pig - skin** Result: Not sensitizing

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Product/ingredient name	Result
Propiconazole	**Bacteria** OECD [Bacterial Reverse Mutation Test] Result: Negative
3-iodo-2-propynyl-butyl carbamate	**In vitro - Bacteria** Result: Negative

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Reproductive toxicity

Product/ingredient name	Result
Propiconazole	**Mouse - Unreported** Maternal toxicity: Positive Developmental: Positive
3-iodo-2-propynyl-butyl carbamate	**Rabbit - Female - Oral** 50 mg/kg [7 days per week] [13 days] Maternal toxicity: Positive Developmental: Negative **Rabbit - Female - Oral** 20 mg/kg [7 days per week] [13 days] Maternal toxicity: Negative Developmental: Negative

Conclusion/Summary [Product] : May damage the unborn child.

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Bronopol	STOT SE 3, H335 (Respiratory tract irritation)

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
3-iodo-2-propynyl-butyl carbamate	STOT RE 1, H372 (larynx)

SECTION 11: Toxicological information

Aspiration hazard

Not available.

Information on likely routes of exposure

Not available.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage the unborn child.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result
Propiconazole	**LC50** Fish - *Oncorhynchus mykiss* 4.3 mg/l [96 hours] **EC50** Daphnia - *Daphnia magna* 10.2 mg/l [48 hours]
3-iodo-2-propynyl-butyl carbamate	**Acute - LC50 - Fresh water** EU Fish - Trout - *Oncorhynchus mykiss* 0.067 mg/l [96 hours] **Acute - NOEC - Fresh water** EU Fish - Trout - *Oncorhynchus mykiss* 0.049 mg/l [96 hours] **Acute - EC50 - Fresh water** EU Daphnia - Daphnia - *Daphnia magna* 0.16 mg/l [48 hours] **Chronic - NOEC - Fresh water** EU Daphnia - Daphnia - *Daphnia Magna* 0.05 mg/l [21 days] **Acute - EC50 - Fresh water** EU Algae - Algae - *Scenedemus subspicatus* 0.022 mg/l [72 hours]
Tebuconazol	**Chronic - NOEC - Fresh water** US EPA Daphnia - Water flea - *Daphnia magna* 0.12 ppm [21 days] Effect: Growth **Chronic - NOEC** US EPA Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 0.012 ppm [83 days] Effect: Growth **Acute - EC50 - Fresh water** US EPA Algae - Green algae - *Scenedesmus subspicatus* 1.45 ppm [4 days] Effect: Population **Acute - LC50 - Fresh water** Fish - common carp - *Cyprinus carpio* - Fingerling Age: 90 days; Weight: 2.1 g 2.37 mg/l [96 hours] Effect: Mortality **Chronic - IC10 - Fresh water** Algae - Green algae - *Pseudokirchneriella subcapitata* 1200 µg/l [72 hours] Effect: Population

SECTION 12: Ecological information

	Acute - LC50 - Fresh water Daphnia - Water flea - *Daphnia magna* - Neonate Age: 26 hours 750 µg/l [48 hours] Effect: Mortality
Bronopol	**Acute - EC50** Daphnia 1.4 mg/l [48 hours] **Acute - LC50** Fish 41.2 mg/l [96 hours] **Chronic - NOEC** US EPA Fish - Rainbow trout,donaldson trout - *Oncorhynchus mykiss* 1.94 ppm [49 days] Effect: Growth **Acute - EC50 - Fresh water** US EPA Algae - Green algae - *Scenedesmus subspicatus* 0.02 ppm [96 hours] **Acute - LC50 - Fresh water** US EPA Fish - Bluegill - *Lepomis macrochirus* Weight: 0.34 g 11.17 ppm [96 hours] Effect: Mortality

Conclusion/Summary [Product] : Harmful to aquatic life with long lasting effects.

12.2 Persistence and degradability

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3-iodo-2-propynyl-butyl carbamate	-	-	Not readily
Bronopol	-	-	Readily

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Dipropyleneglycolmethylether	0.004	-	Low
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	4.2	-	High
Propiconazole	3.72	-	Low
3-iodo-2-propynyl-butyl carbamate	>1	-	Low
Tebuconazol	3.7	-	Low
Bronopol	0.18	-	Low

12.4 Mobility in soil

Soil/water partition coefficient

SECTION 12: Ecological information

Product/ingredient name	logKoc	Koc
Propiconazole	3.39	2451.91
3-iodo-2-propynyl-butyl carbamate	1.13	13.4558
Tebuconazol	3	994.153
Bronopol	1.02	10.3771

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	No	No	No	No	No	No	No
Propiconazole	No	No	No	No	No	No	No
3-iodo-2-propynyl-butyl carbamate	No	No	No	No	No	No	No
Tebuconazol	No	No	No	No	No	No	No
Bronopol	No	No	No	No	No	No	No

Mobility : Not available.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	No	No	No	No	No	No	No
Propiconazole	No	No	No	No	No	No	No
3-iodo-2-propynyl-butyl carbamate	No	No	No	No	No	No	No
Tebuconazol	No	No	No	No	No	No	No
Bronopol	No	No	No	No	No	No	No

Regulation (EC) No. 1272/2008 [CLP]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
Dipropyleneglycolmethylether	No	No	No	No	No	No	No
Alcohols, C16-18 and C18-unsatd., ethoxylated (8 EO)	No	No	No	No	No	No	No
Propiconazole	No	No	No	No	No	No	No
3-iodo-2-propynyl-butyl carbamate	No	No	No	No	No	No	No
Tebuconazol	No	No	No	No	No	No	No
Bronopol	No	No	No	No	No	No	No

Conclusion/Summary Regulation (EC) No. 1272/2008 [CLP] : The product does not meet the criteria to be considered as a PBT or vPvB.

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : The product does not meet the criteria to be considered as having endocrine disrupting properties according to the criteria set out in either Regulation (EC) No. 1907/2006 or Regulation (EC) No 1272/2008.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products 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)

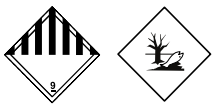
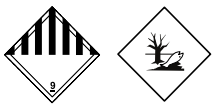
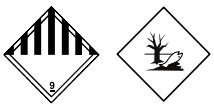
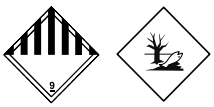
Waste code	Waste designation
03 02 02*	organochlorinated wood preservatives

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tebuconazole)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tebuconazole)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tebuconazole)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tebuconazole)
14.3 Transport hazard class(es)	9 	9 	9 	9 
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information

ADR/RID : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.
Tunnel code (-)

ADN : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IMDG : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA : This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

SECTION 14: Transport information

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Maritime transport in bulk according to IMO instruments : Not relevant/applicable due to nature of the product.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Product/ingredient name	%	Designation [Usage]
TEKNOL AQUA 1412-01	≥90	3 30
Propiconazole	<1	30

Labelling : Restricted to professional users.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Annex	Ingredient name	Status
Annex I - Part 1	propiconazole	Listed

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
E2

National regulations

Biocidal products regulation : This product is a biocidal product as defined in EU Regulation 528/2012. Its supply and use may be subject to certain requirements or restrictions specified in this regulation.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

SECTION 15: Regulatory information

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms :
ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Repr. 1B, H360D	Calculation method
Aquatic Chronic 2, H411	Calculation method

Full text of abbreviated H statements

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2

SECTION 16: Other information

Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

Date of issue/ Date of revision : 22/04/2025

Date of previous issue : No previous validation

Version : 1

TEKNOL AQUA 1412-01 All variants

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.