

## Jotun Aqua Pro Metal Yarı Parlak

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

#### 1.1 Product identifier

Product name	: Jotun Aqua Pro Metal Yarı Parlak
Product code	: 51382
Product description	: Waterborne paint.
Product type	: Liquid.
Other means of identification	: Not available.

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

Use in coatings - Consumer use: Apply this product only as specified on the label.

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

Jotun Boya Sanayi ve Ticaret A.Ş.  
Balabandere Caddesi, Hilpark Suites Sitesi No: 10, İstinye 34460 Sarıyer, İstanbul

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#### 1.4 Emergency telephone number

##### National Poison Information Center

- +90 224 442 82 93 Uludağ Üniversitesi Zehir Danışma Merkezi ([www.uludag.edu.tr/uludag/zehir.html](http://www.uludag.edu.tr/uludag/zehir.html))  
a. ACİL DURUM TELEFONU: Zehirlenme durumlarında gerektiğinde ulusal zehir merkezinin (UZEM) 114 nolu telefonunu arayınız.  
b. ACİL İLK YARDIM MERKEZİ:112  
c. İTFAİYE:110

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Product definition : Mixture

##### Classification according to regulation SEA: RG.-10/12/2020-31330

Skin Sens. 1, H317  
Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation SEA: RG.-10/12/2020-31330.

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

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

#### 2.2 Label elements

Hazard pictograms :



Signal word : Warning.

## SECTION 2: Hazards identification

- Hazard statements** : H317 - May cause an allergic skin reaction.  
H412 - Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- General** : P102 - Keep out of reach of children.
- Prevention** : P280 - Wear protective gloves.  
P273 - Avoid release to the environment.  
P261 - Avoid breathing vapour.
- Response** : P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P302 + P352 - IF ON SKIN: Wash with plenty of water.  
P333 + P313 - If skin irritation or rash occurs: 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.
- Hazardous ingredients** : 3-aminopropyltriethoxysilane  
benzothiazole-2-thiol  
2,4,7,9-tetramethyldec-5-yne-4,7-diol  
2-methyl-2H-isothiazol-3-one  
1,2-benzisothiazol-3(2H)-one  
C(M)IT/MIT (3:1)
- Supplemental label elements** : Not applicable.
- Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

- Product meets the criteria for PBT or vPvB** : 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	%	SEA: RG.-10/12/2020-31330	Type
(2-methoxymethylethoxy) propanol	EC: 252-104-2 CAS: 34590-94-8	≤3	Not classified.	[2]
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	EC: 229-934-9 CAS: 6846-50-0	<1	Repr. 2, H361d Aquatic Chronic 3, H412	[1]
3-aminopropyltriethoxysilane	EC: 213-048-4 CAS: 919-30-2	<1	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1B, H317	[1]
benzothiazole-2-thiol	EC: 205-736-8 CAS: 149-30-4	≤0.38	Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]

### SECTION 3: Composition/information on ingredients

Alcohols, C16-18 and C18-unsatd., ethoxylated	EC: 500-236-9 CAS: 68920-66-1	≤0.16	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 3, H412	[1]
2,4,7,9-tetramethyldec-5-yne-4,7-diol	EC: 204-809-1 CAS: 126-86-3	≤0.3	Eye Dam. 1, H318 Skin Sens. 1B, H317 Aquatic Chronic 3, H412	[1]
ammonia, aqueous solution	EC: 215-647-6 CAS: 1336-21-6	≤0.15	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 2, H411	[1] [2]
pyrithione zinc	EC: 236-671-3 CAS: 13463-41-7	≤0.024	Acute Tox. 3, H301 Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=10)	[1] [2]
2-methyl-2H-isothiazol-3-one	EC: 220-239-6 CAS: 2682-20-4	≤0.014	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=1)	[1]
1,2-benzisothiazol-3(2H)-one	EC: 220-120-9 CAS: 2634-33-5	<0.05	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=1)	[1]
C(M)IT/MIT (3:1)	CAS: 55965-84-9	<0.001	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071 <b>See Section 16 for the full text of the H statements declared above.</b>	[1]

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 or vPvBs 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

[2] Substance with a workplace exposure limit

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 adverse health effects persist or are severe. 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** : Wash with plenty of soap and 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. In the event of any complaints or symptoms, avoid further exposure. 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 if adverse health effects persist or are severe. 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. 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****Potential acute health effects**

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : Adverse symptoms may include the following:  
irritation  
redness
- Ingestion** : No specific data.

**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 harmful 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 thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
metal oxide/oxides

### 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 spilled 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 spilled 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.

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

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

**SECTION 6: Accidental release measures**

- 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). 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. Avoid release to the environment. 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. 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.

See Technical Data Sheet / packaging for further information.

**7.3 Specific end use(s)**

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
(2-methoxymethylethoxy)propanol	<b>TR ISGGM OEL (Turkey, 12/2013). [(2-Methoxymethylethoxy) propanol] Absorbed through skin.</b> TWA: 308 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours.
ammonia, aqueous solution	<b>TR ISGGM OEL (Turkey, 12/2013). [ammonia]</b> TWA: 14 mg/m <sup>3</sup> 8 hours. TWA: 20 ppm 8 hours. STEL: 36 mg/m <sup>3</sup> 15 minutes. STEL: 50 ppm 15 minutes.
pyrithione zinc	<b>EU OEL (Europe, 2000).</b> TWA: 0.35 mg/m <sup>3</sup> 8 hours.

**Biological exposure indices**

No exposure indices known.

**SECTION 8: Exposure controls/personal protection**

**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	Type	Exposure	Value	Population	Effects
(2-methoxymethylethoxy)propanol	DNEL	Long term Dermal	65 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	310 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	37.2 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Oral	1.67 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	15 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Oral	36 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	37.2 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	121 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	283 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	308 mg/m <sup>3</sup>	Workers	Systemic
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	DNEL	Long term Inhalation	4.35 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	17.62 mg/m <sup>3</sup>	Workers	Systemic
3-aminopropyltriethoxysilane	DNEL	Short term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	59 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	8.3 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	59 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	17.4 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term	17.4 mg/m <sup>3</sup>	General	Systemic

**SECTION 8: Exposure controls/personal protection**

benzothiazole-2-thiol		Inhalation		population [Consumers]	
	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	3.5 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	14 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Oral	1.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	2.2 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	2.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	8.8 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Oral	10 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	17.6 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Dermal	20 mg/kg bw/day	General population	Systemic
	Alcohols, C16-18 and C18-unsatd., ethoxylated	DNEL	Short term Dermal	40 mg/kg bw/day	Workers
DNEL		Short term Inhalation	70.4 mg/m <sup>3</sup>	Workers	Systemic
DNEL		Long term Oral	25 mg/kg bw/day	General population	Systemic
DNEL		Long term Inhalation	87 mg/m <sup>3</sup>	General population	Systemic
DNEL		Long term Inhalation	294 mg/m <sup>3</sup>	Workers	Systemic
2,4,7,9-tetramethyldec-5-yne-4,7-diol	DNEL	Long term Dermal	1250 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2080 mg/ kg bw/day	Workers	Systemic
	DNEL	Long term Oral	0.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.25 mg/ kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.43 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	0.5 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Oral	0.75 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.75 mg/ kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	1.29 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Dermal	1.5 mg/kg bw/day	Workers	Systemic
pyrithione zinc	DNEL	Long term Inhalation	1.76 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	5.28 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.01 mg/ kg bw/day	Workers	Systemic



**SECTION 8: Exposure controls/personal protection**

2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0.021 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.021 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.027 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.043 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0.043 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Oral	0.053 mg/kg bw/day	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0.345 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2 mg/m <sup>3</sup>	General population	Systemic
C(M)IT/MIT (3:1)	DNEL	Long term Inhalation	6.81 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	0.02 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.02 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0.04 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	0.04 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Oral	0.09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.11 mg/kg bw/day	General population	Systemic

**PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
(2-methoxymethylethoxy)propanol	Fresh water	19 mg/l	Assessment Factors
	Marine	1.9 mg/l	Assessment Factors
	Fresh water sediment	70.2 mg/kg dwt	Assessment Factors
	Marine water sediment	7.02 mg/kg dwt	Assessment Factors
	Soil	2.74 mg/kg	Assessment Factors
	Sewage Treatment Plant	4168 mg/l	Assessment Factors
3-aminopropyltriethoxysilane	Fresh water	0.33 mg/l	-
	Marine	0.033 mg/l	-
	Sewage Treatment Plant	13 mg/l	-
	Fresh water sediment	1.2 mg/kg dwt	-
	Marine water sediment	0.12 mg/kg dwt	-
	Soil	0.05 mg/kg dwt	-

**8.2 Exposure controls**

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**SECTION 8: Exposure controls/personal protection**

- Eye/face protection** : Safety eyewear complying to ISO 16321-1:2022 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** : There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals. The breakthrough time must be greater than the end use time of the product. The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed. Gloves should be replaced regularly and if there is any sign of damage to the glove material. Always ensure that gloves are free from defects and that they are stored and used correctly. The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance. Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. Wear suitable gloves tested to ISO 374-1:2016. Recommended, gloves(breakthrough time) > 8 hours: nitrile rubber (> 0.75 mm), neoprene (> 0.35 mm), PVC (> 0.5 mm) May be used, gloves(breakthrough time) 4 - 8 hours: polyvinyl alcohol (PVA) (> 0.3 mm), 4H/Silver Shield® (> 0.07 mm)
- For right choice of glove materials, with focus on chemical resistance and time of penetration, seek advice by the supplier of chemical resistant gloves. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.
- 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.
- 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.
- 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** : A-base B-base C-base Ochre-base Yellow-base
- Odour** : Odourless.
- Odour threshold** : Not applicable.
- Melting point/freezing point** : 0
- Initial boiling point and boiling range** : Lowest known value: 100°C (212°F) (water). Weighted average: 115.48°C (239.9°F)
- Flammability (solid, gas)** : Not applicable.

**SECTION 9: Physical and chemical properties**

<b>Upper/lower flammability or explosive limits</b>	: 0.6 - 20.4%
<b>Flash point</b>	: Not available.
<b>Auto-ignition temperature</b>	: Not applicable.
<b>Decomposition temperature</b>	: Not available.
<b>pH</b>	: 8.5 to 9.5
<b>Viscosity</b>	: Kinematic (40°C): >20.5 mm <sup>2</sup> /s
<b>Solubility(ies)</b>	:

Media	Result
cold water	Easily soluble
hot water	Easily soluble

**Partition coefficient: n-octanol/ water** : Not available.

**Vapour pressure** : Highest known value: 2.3 kPa (17.5 mm Hg) (at 20°C) (water). Weighted average: 2.08 kPa (15.6 mm Hg) (at 20°C)  
Highest known value: 0.36 (water) Weighted average: 0.33 compared with butyl acetate

**Density** : 1.071 to 1.221 g/cm<sup>3</sup>

**Vapour density** : Highest known value: 6.6 (Air = 1) (1-(2-butoxy-1-methylethoxy)propan-2-ol).  
Weighted average: 5.31 (Air = 1)

**Explosive properties** : Not available.

**Oxidising properties** : Not available.

**Particle characteristics**

**Median particle size** : Not applicable.

**9.2 Other information**

No additional information.

**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: No specific data.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
3-aminopropyltriethoxysilane benzothiazole-2-thiol ammonia, aqueous solution pyrithione zinc	LD50 Oral	Rat	1780 mg/kg	-
	LD50 Dermal	Rabbit	>7940 mg/kg	-
	LD50 Oral	Rat	350 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	0.14 mg/l	4 hours
1,2-benzisothiazol-3(2H)-one	LD50 Dermal	Rat	2000 mg/kg	-
	LD50 Oral	Rat	221 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	40 mg/l	4 hours
	LD50 Oral	Rat	485 mg/kg	-

**SECTION 11: Toxicological information**

C(M)IT/MIT (3:1)	LD50 Oral	Rat	53 mg/kg	-
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**Conclusion/Summary** : 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)
3-aminopropyltriethoxysilane	1780	N/A	N/A	N/A	N/A
Alcohols, C16-18 and C18-unsatd., ethoxylated	500	N/A	N/A	N/A	N/A
zinc pyrithione	221	N/A	N/A	N/A	0.14
2-methyl-2H-isothiazol-3-one (MIT)	100	300	N/A	0.5	N/A
1,2-benzisothiazol-3(2h)-one (BIT)	500	N/A	N/A	N/A	N/A
C(M)IT/MIT (3:1)	53	50	N/A	0.5	N/A

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
(2-methoxymethylethoxy) propanol	Eyes - Mild irritant	Human	-	8 mg	-
	Eyes - Mild irritant	Rabbit	-	24 hours 500 mg	-
Alcohols, C16-18 and C18-unsatd., ethoxylated	Skin - Mild irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-
2,4,7,9-tetramethyldec-5-yne-4,7-diol	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Eyes - Severe irritant	Rabbit	-	0.1 Milliliters	-
ammonia, aqueous solution	Skin - Mild irritant	Rabbit	-	0.5 Grams	-
	Eyes - Severe irritant	Rabbit	-	0.5 minutes	-
	Eyes - Severe irritant	Rabbit	-	1 milligrams	-
pyrithione zinc	Eyes - Severe irritant	Rabbit	-	250 Micrograms	-
	Eyes - Irritant	Mammal - species unspecified	-	-	-
1,2-benzisothiazol-3(2H)-one	Eyes - Irritant	Mammal - species unspecified	-	-	-
	Skin - Mild irritant	Mammal - species unspecified	-	-	-

**Conclusion/Summary** : Not available.

**Sensitisation**

Product/ingredient name	Route of exposure	Species	Result
benzothiazole-2-thiol	skin	Mammal - species unspecified	Sensitising
2,4,7,9-tetramethyldec-5-yne-4,7-diol	skin	Mammal - species unspecified	Sensitising
2-methyl-2H-isothiazol-3-one	skin	Mammal - species unspecified	Sensitising
1,2-benzisothiazol-3(2H)-one C(M)IT/MIT (3:1)	skin	Mouse	Sensitising
	skin	Mammal - species unspecified	Sensitising

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**SECTION 11: Toxicological information****Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
ammonia, aqueous solution	Category 3	-	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
pyrithione zinc	Category 1	-	-

**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** : May cause an allergic skin reaction.  
**Ingestion** : No known significant effects or critical hazards.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : Adverse symptoms may include the following:  
irritation  
redness  
**Ingestion** : No specific data.

**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** : Not available.

**General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

**Carcinogenicity** : No known significant effects or critical hazards.

## SECTION 11: Toxicological information

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
benzothiazole-2-thiol	Acute EC50 230 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4.19 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
Alcohols, C16-18 and C18-unsatd., ethoxylated 2,4,7,9-tetramethyldec-5-yne-4,7-diol	Acute EC50 2.9 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.73 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 1.3 mg/l	Fish	96 hours
	Acute EC50 82 mg/l	Algae	72 hours
ammonia, aqueous solution	Acute EC50 91 mg/l	Daphnia	48 hours
	Acute LC50 36 mg/l	Fish	96 hours
pyrithione zinc	Acute EC50 0.101 mg/l Fresh water	Daphnia	96 hours
	Acute LC50 0.89 mg/l Fresh water	Fish	96 hours
2-methyl-2H-isothiazol-3-one	Acute EC50 0.067 mg/l	Algae	72 hours
	Acute EC50 0.051 mg/l	Daphnia	48 hours
	Acute LC50 0.0104 mg/l	Fish	96 hours
	Chronic NOEC 2.7 ppb Marine water	Daphnia - Daphnia magna	21 days
1,2-benzisothiazol-3(2H)-one	Acute EC50 0.445 mg/l	Algae	24 hours
	Acute EC50 2.94 mg/l	Daphnia	48 hours
C(M)IT/MIT (3:1)	Acute LC50 6 mg/l	Fish	96 hours
	Acute EC50 0.15 mg/l	Algae - Slenastrum capricornutum	72 hours
C(M)IT/MIT (3:1)	Acute EC50 1.05 mg/l	Crustaceans - Daphnia magna	96 hours
	Acute LC50 1.4 mg/l	Fish - Onchorhynchus mykiss	96 hours
	Acute EC50 0.048 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 0.0052 mg/l	Algae - Skeletonema costatum	48 hours
	Acute EC50 0.1 mg/l	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.22 mg/l	Fish - Oncorhynchus mykiss	96 hours
	Acute NOEC 0.00064 mg/l	Algae - Skeletonema costatum	48 hours
	Chronic NOEC 0.0012 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
Chronic NOEC 0.004 mg/l	Daphnia - Daphnia magna	21 days	
Chronic NOEC 0.098 mg/l	Fish - Oncorhynchus mykiss	28 days	

**Conclusion/Summary** : This material is harmful to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
(2-methoxymethylethoxy) propanol	-	-	Readily
benzothiazole-2-thiol	-	-	Not readily
2,4,7,9-tetramethyldec-5-yne-4,7-diol	-	-	Not readily
ammonia, aqueous solution	-	-	Readily
C(M)IT/MIT (3:1)	-	-	Not readily

### 12.3 Bioaccumulative potential

## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
(2-methoxymethylethoxy) propanol	0.004	-	low
1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	-	5340	high
3-aminopropyltriethoxysilane	1.7	3.4	low
benzothiazole-2-thiol	2.42	18.35	low
Alcohols, C16-18 and C18-unsatd., ethoxylated	4.2	-	high
ammonia, aqueous solution	<1	-	low
pyrithione zinc	0.9	11	low
C(M)IT/MIT (3:1)	-	3.16	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

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).

### 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.

**Hazardous waste** : Yes.

#### Waste list

Waste code	Waste code definition
08 01 11*	Waste paint and varnish containing organic solvents or other dangerous substances

#### 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	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

**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 Transport in bulk according to IMO instruments** : Not available.

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Turkey Regulation No. 30105. KKDİK****Annex 14 - List of substances subject to authorization****Annex 14**

None of the components are listed.

**Substances of very high concern**

None of the components are listed.

**Annex 17 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

**Ozone depleting substances**

Not listed.

**Regulation on the prevention of major industrial accidents and reduction of their effects**

This product is not controlled under the Regulation on the prevention of major industrial accidents and reduction of their effects.

**EU regulations****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.



## SECTION 15: Regulatory information

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

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

Not listed.

**Persistent Organic Pollutants**

Not listed.

**International regulations**

**Chemical Weapon Convention List Schedules I, II & III Chemicals**

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  
 EUH statement = SEA-specific Hazard statement  
 N/A = Not available  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 SGG = Segregation Group  
 vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to regulation SEA: RG.-10/12/2020-31330**

Classification	Justification
Skin Sens. 1, H317 Aquatic Chronic 3, H412	Calculation method Calculation method

**Full text of abbreviated H statements**

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal 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.

## SECTION 16: Other information

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.
EUH071	Corrosive to the respiratory tract.

### Full text of classifications [SEA/GHS]

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

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