TEKNOS

according to 1907/2006/EC, Article 31

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SECTION 01: Identification of the substance/mixture and of the company undertaking

- 1.1 Product identifier
- · Trade name:

ALPOLAN MARINE VARNISH 2420

- Article number / Safety Data Sheet:
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation Coating material
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
- Teknos AG
- Industriestrasse 7

LI-9487 Gamprin-Bendern

T +423 375 94 00

F +423 375 94 99

- Further information obtainable from:
- Product safety department. e-mail address: li-sdb@teknos.com
- 1.4 Emergency telephone number:

Swiss Toxicological Information Centre, CH-8032 Zürich Emergency telephone: +41 (0)44 251 51 51 (International)

SECTION 02: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02

Flam. Liq. 2 - H225 Highly flammable liquid and vapour.



GHS07

Skin Sens. 1 - H317 May cause an allergic skin reaction. STOT SE 3 - H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 - H412 Harmful to aquatic life with long lasting effects.

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms





GHS02 GHS07

- Signal word Danger
- Hazard-determining components of labelling:

n-butyl acetate / ethyl acetate / Hydrocarbons, C7-C9, n-alkanes, iso-alkanes, cyclenes / BENZOTRIAZOL DERIVATIVES Index no. 607-176-00-3

Hazard statements

H225 Highly flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (continued on page 2)



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P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P302+P352 IF ON SKIN: Wash with plenty of water.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.

- · 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT:

Not applicable.

vPvB:

Not applicable.

SECTION 03: Composition/information on ingredients

- · 3.2 Chemical characterization: Mixtures
- · Description:

Mixture of substances listed below with nonhazardous additions.

CAS Number		%
	BENZOTRIAZOL DERIVATIVES Index no. 607-176-	1,00- 5,00
	00-3	
	EC number: 400-830-7	
	Record number 01-0000015075-76	
	Skin Sens. 1 - H317; 🤄 Aquatic	
	Chronic 2 - H411	
112-07-2	2-butoxyethyl acetate	1,00- 5,00
	EC number: 203-933-3	
	Record number 01-2119475112-47	
	Acute Tox. 4 - H312, Acute Tox. 4 -	
	H332	
141-78-6	ethyl acetate	5,00- 10,00
	EC number: 205-500-4	
	Record number 01-2119475103-46	
	\delta Flam. Liq. 2 - H225; 🔱 Eye Irrit.	
	2 - H319-EUH066, STOT SE 3 - H336	
4742-49-0	Hydrocarbons, C7-C9, n-alkanes, iso-alkanes,	1,00- 5,00
	cyclenes	
	EC number: 920-750-0	
	Record number 01-2119473851-33	
	🚸 Flam. Liq. 2 - H225; 🚸 Asp. Tox. 1	
	- H304; 💠 STOT SE 3 - H336; 🧇	
	Aquatic Chronic 2 - H411	
123-86-4	n-butyl acetate	25,00- 40,00
	EC number: 204-658-1	
	Record number 01-2119485493-29	
	🚸 Flam. Liq. 3 - H226; 💠 STOT SE 3 -	
	H336	
1-36-3	butan-1-ol	0,50- 1,00
	EC number: 200-751-6	, , -
	Record number 01-2119484630-38	
	💠 Eye Dam. 1 - H318; 🚸 Flam. Liq. 3	
	- H226; 💠 Acute Tox. 4 - H302, Skin	
	.,	(continued on page 3



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Irrit. 2 - H315, STOT SE 3 - H335-H336

1330-20-7 xylene 1,00- 5,00

EC number: 215-535-7

Record number

01-2119488216-32 Flam. Lig. 3 - H226; V Acute Tox. 4 - H312, Acute Tox. 4 - H332, Skin Irrit. 2

- H315

100-41-4 ethylbenzene 0,50- 1,00

EC number: 202-849-4

Record number 01-2119489370-35 Flam. Liq. 2 - H225; STOT RE 2 -

Additional information:

For the wording of the listed risk phrases refer to section 16.

SECTION 04: First aid measures

- · 4.1 Description of first aid measures
- After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact:

Rinse opened eye for several minutes under running water.

After swallowing:

Do not induce vomiting; call for medical help immediately.

- · Information for doctor:
- 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 05: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents:

Water with full jet

· 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters
- Protective equipment:

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

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SECTION 06: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Prevent seepage into sewage system, workpits and cellars.

Inform respective authorities in case of seepage into water course or sewage system.

In case of seepage into the ground inform responsible authorities.

In case of gas release or seepage into the ground inform responsible authorities.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 07: Handling and storage

- · Handling:
- 7.1 Precautions for safe handling

Open and handle receptacle with care.

Take note of emission threshold.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Prevent impact and friction.

- 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Store in a cool location.

Store only in the original receptacle.

Information about storage in one common storage facility:

Not required.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

• 7.3 Specific end use(s)

No further relevant information available.

SECTION 08: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

112-07-2 2-butoxyethyl acetate

WEL

 Short-term value
 332
 mg/m3

 50
 ppm

 Long-term value
 133
 mg/m3

 20
 ppm

Sk

141-78-6 ethyl acetate

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WEL			(continued of page 4)
	t-term value	1468	mg/m3
31101	t-term value	400	
Long	j-term value	734	ppm mg/m3
Long	j-teriii value	200	
123-86-4	n-butyl acetate	200	ppm
WEL	n-butyr acetate		
Shor	t-term value	966	mg/m3
		200	ppm
Long	g-term value	724	mg/m3
		150	ppm
71-36-3 WEL	butan-1-ol		
Shor	t-term value	154	mg/m3
		50	ppm
Sk			
1330-20-7 WEL	xylene		
Shor	t-term value	441	mg/m3
		100	ppm
Long	g-term value	220	mg/m3
		50	ppm
Sk; E	BMGV		
100-41-4	ethylbenzene		
WEL			
Shor	t-term value	552	mg/m3
		125	ppm
Long	g-term value	441	mg/m3
		100	ppm
Sk			
 Ingredients w 	rith biological limit values:		

1330-20-7 xylene

BMGV

650 mmol/mol creatinine

Medium: urine

Sampling time: post shift Parameter: methyl hippuric acid

Additional information:

The lists valid during the making were used as basis.

- 8.2 Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Be sure to clean skin thoroughly after work and before breaks.

- Respiratory protection: Suitable respiratory protective device recommended.
 Protection of hands: The glove material has to be impermeable and resistant to the product/ the substance/ the
- preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation Protective gloves Impervious gloves
- · Material of gloves

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The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

• Eye protection: Safety glasses

· Body protection: Protective work clothing

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and che	emical properties				
Appearance					
Appearance:					
Form:	Liquid				
Colour:	According to product specifica				
Odour:	Characteristic Characteristic				
Odour threshold:	Not determined.				
Change in condition					
Initial boiling point and boiling range:	77 °C				
Flash point:	-1 °C				
Flammability (solid, gas):	Not applicable.				
Ignition temperature:	425 °C				
Decomposition temperature:	Not determined.				
Auto-ignition temperature:	Not determined.				
Explosive properties:	Not determined.				
Explosion limits:					
Lower:	1 Vol %				
Upper:	7 Vol %				
Vapour pressure:	at 20 °C 10,7000 mbar at 50 °C 55,0000 mbar				
Density:	0,9700 g/cm3				
Solubility in / Miscibility with					
water:	Not determined.				
Viscosity:					
	Not determined.				
	12 - 16 s DIN 4 mm				
2 Other information No further relevant information available.					

SECTION 10: Stability and reactivity

- 10.1 Reactivity
- No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:
- No decomposition if used according to specifications.
- 10.3 Possibility of hazardous reactions
- No dangerous reactions known.
- 10.4 Conditions to avoid
- No further relevant information available.
- 10.5 Incompatible materials:
 - No further relevant information available.

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· 10.6 Hazardous decomposition products:

No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- Acute toxicity
- LD/LC50 values relevant for classification:

112-07-2 2-butoxyethyl acetate

Oral, LD50: 2400 mg/kg (rat) Dermal, LD50: 1580 mg/kg (Rabbit) Oral, LD50: 5620 mg/kg (Rabbit) Inhalative, LC50 4h: 1600 mg/l (rat) Oral, LD50: 13100 mg/kg (rat) Dermal, LD50: >5000 mg/kg (Rabbit) Inhalative, LC50/4h: >21 mg/l (rat) Oral, LD50: 790 mg/kg (rat) Dermal, LD50: 3400 mg/kg (Rabbit) Inhalative, LC50/4h: 8000 mg/l (rat) Oral, LD50: 4300 mg/kg (rat) Dermal, LD50: 2000 mg/kg (Rabbit) Oral, LD50: 3500 mg/kg (rat) Dermal, LD50: 17800 mg kg (Rabbit)

 141-78-6
 ethyl acetate

 123-86-4
 n-butyl acetate

 71-36-3
 butan-1-ol

 1330-20-7
 xylene

 100-41-4
 ethylbenzene

- · Primary irritant effect:
- · Skin corrosion/irritation

No irritant effect.

- Serious eye damage/irritation
- No irritating effect.
- Respiratory or skin sensitisation

Sensitisation possible through skin contact.

Additional toxicological information:

The product can cause deformations.

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity:

No further relevant information available.

· 12.2 Persistence and degradability

No further relevant information available.

- · Behaviour in environmental systems:
- · 12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

- · Ecotoxical effects:
- Remark:

Harmful to fish

- Additional ecological information:
- · General notes:

Harmful to aquatic organisms

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- 12.5 Results of PBT and vPvB assessment
- PBT:

Not applicable.

vPvB:

Not applicable.

· 12.6 Other adverse effects

No further relevant information available.

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SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- · European and swiss waste code

0.8

WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

08 01

wastes from MFSU and removal of paint and varnish $% \left(1\right) =\left(1\right) \left(1\right) \left($

08 01 11

waste paint and varnish containing organic solvents or other hazardous substances $% \left(1\right) =\left(1\right) +\left(1\right) +$

- · Uncleaned packaging:
- · Recommendation:

Disposal must be made according to official regulations.

SECTION 14: Transport information

• 14.1 UN-Number

 ADR
 UN1263

 IMDG
 UN1263

 IATA
 UN1263

• 14.2 UN proper shipping name

ADR 1263 PAINT
IMDG PAINT
IATA PAINT

• 14.3 Transport hazard class(es)

ADR

Class 3 Flammable liquids.

Label



IMDG

Class 3 Flammable liquids.

Label



IATA

Class 3 Flammable liquids.

Label



• 14.4 Packing group

ADR II

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IATA

14.5 Environmental hazards:

Not applicable.

14.6 Special precautions for user Warning: Flammable liquids. 33 Danger code (Kemler):

F-E,S-E

Ш

EMS Number: • 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

· Transport/Additional information:

Not applicable.

Not applicable.

Excepted quantities (EQ): E2 Limited quantities (LQ) 5L 2 Transport category **Tunnel restriction code** D/E

IMDG

Limited quantities (LQ) 5L Excepted quantities (EQ) E2

UN "Model Regulation": UN 1263 PAINT, 3, II

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 40
- · National regulations:
- Technical instructions (air):

Class Share in %

III 39,65 3,47 ΤT

Waterhazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

15.2 Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

EUH066 Repeated exposure may cause skin dryness or cracking.

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

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin. H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

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

H411 Toxic to aquatic life with long lasting effects.

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MATERIAL SAFETY DATA SHEET



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· Department issuing MSDS:

Environment protection department.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer

(Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association ICAO: International Civil Aviation Organisation

GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative * Data compared to the previous version altered.