

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

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

• 1.1 Product identifier

- Trade name:
ALPOLAN DUOFINISH 5461
- Article number / Safety Data Sheet:
161100
- UFI:
- 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 Irrit. 2 - H315 Causes skin irritation.
Eye Irrit. 2 - H319 Causes serious eye irritation.
STOT SE 3 - H336 May cause drowsiness or dizziness.



GHS08

Repr. 2 - H361d Suspected of damaging the unborn child.

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



GHS02



GHS07



GHS08

- Signal word
Danger

- Hazard-determining components of labelling:
n-butyl acetate / ethyl acetate / toluene
- Hazard statements
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.

(continued on page 2)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 1)

- H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.
 EUH208 Contains BENZOTRIAZOL DERIVATIVES Index no. 607-176-00-3, methyl methacrylate. May produce an allergic reaction.
- Precautionary statements
 - P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 - 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.

- Dangerous components:

CAS Number		%
123-86-4	n-butyl acetate EC number: 204-658-1 Record number 01-2119485493-29 ⚠ Flam. Liq. 3 - H226; ⚠ STOT SE 3 - H336	25,00- 40,00
141-78-6	ethyl acetate EC number: 205-500-4 Record number 01-2119475103-46 ⚠ Flam. Liq. 2 - H225; ⚠ Eye Irrit. 2 - H319-EUH066, STOT SE 3 - H336	15,00- 25,00
108-88-3	toluene EC number: 203-625-9 Record number 01-2119471310-51 ⚠ Flam. Liq. 2 - H225; ⚠ Repr. 2 - H361d, STOT RE 2 - H373, Asp. Tox. 1 - H304; ⚠ Skin Irrit. 2 - H315, STOT SE 3 - H336	5,00- 10,00
1330-20-7	xylene EC number: 215-535-7 Record number 01-2119488216-32 ⚠ Flam. Liq. 3 - H226; ⚠ Acute Tox. 4 - H312, Acute Tox. 4 - H332, Skin Irrit. 2 - H315	5,00- 10,00
100-41-4	ethylbenzene EC number: 202-849-4 Record number 01-2119489370-35 ⚠ Flam. Liq. 2 - H225; ⚠ STOT RE 2 - H373, Asp. Tox. 1 - H304; ⚠ Acute Tox. 4 - H332	1,00- 5,00

(continued on page 3)

according to 1907/2006/EC, Article 31

2704323

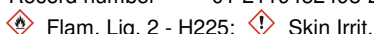
Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461
80-62-6**methyl methacrylate***(continued of page 2)***0,00- 0,50**

EC number: 201-297-1

Record number 01-2119452498-28



2 - H315, Skin Sens. 1 - H317, STOT SE 3 -

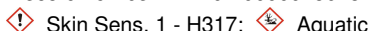
H335

BENZOTRIAZOL DERIVATIVES Index no. 607-176-**0,00- 0,50**

00-3

EC number: 400-830-7

Record number 01-0000015075-76



Chronic 2 - H411

SECTION 04: First aid measures

- *4.1 Description of first aid measures*
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
- **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.

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.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**

(continued on page 4)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 3)

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**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage:**

- **Requirements to be met by storerooms and receptacles:**

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:**

123-86-4	n-butyl acetate		
WEL			
	Short-term value	966	mg/m3
		200	ppm
	Long-term value	724	mg/m3
		150	ppm
141-78-6	ethyl acetate		
WEL			
	Short-term value	1468	mg/m3
		400	ppm
	Long-term value	734	mg/m3
		200	ppm
108-88-3	toluene		
WEL			
	Short-term value	384	mg/m3
		100	ppm
	Long-term value	191	mg/m3
		50	ppm
	Sk		

(continued on page 5)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 4)

1330-20-7	xylene		
WEL			
	Short-term value	441	mg/m3
		100	ppm
	Long-term value	220	mg/m3
		50	ppm
	Sk; BMGV		
100-41-4	ethylbenzene		
WEL			
	Short-term value	552	mg/m3
		125	ppm
	Long-term value	441	mg/m3
		100	ppm
	Sk		
80-62-6	methyl methacrylate		
WEL			
	Short-term value	416	mg/m3
		100	ppm
	Long-term value	208	mg/m3
		50	ppm

- Ingredients with 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.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Do not inhale gases / fumes / aerosols.
Do not eat or drink while working.
Be sure to clean skin thoroughly after work and before breaks.
- *Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device. 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*
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 Tightly sealed goggles*
- *Body protection: Protective work clothing*

GB

(continued on page 6)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 5)

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical 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: 11 Vol %

Vapour pressure: at 20 °C 10,7000 mbar at 50 °C 55,0000 mbar

Density: 0,9400 g/cm³

Solubility in / Miscibility with

water: Not determined.

Viscosity:

. Not determined.

. at 20 °C 25 - 35 s DIN 4 mm

9.2 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.
- **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:**

123-86-4 n-butyl acetate

(continued on page 7)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 6)

Oral, LD50: 13100 mg/kg (rat) Dermal, LD50: >5000 mg/kg (Rabbit) Inhalative, LC50/4h: >21 mg/l (rat) Oral, LD50: 5620 mg/kg (Rabbit) Inhalative, LC50/4h: 1600 mg/l (rat) Oral, LD50: 5000 mg/kg (rat) Dermal, LD50: 12124 mg/kg (Rabbit) Inhalative, LC50/4h: 5320 mg/l (mouse) Oral, LD50: 4300 mg/kg (rat) Dermal, LD50: 2000 mg/kg (Rabbit) Oral, LD50: 3500 mg/kg (rat) Dermal, LD50: 17800 mg/kg (Rabbit) Oral, LD50: 7872 mg/kg (rat) Oral, LD50: 5050 mg/kg (rat) Oral, LD50: 10000 mg/kg (rat) Oral, LD50: 5000 mg/kg (rat)

- 141-78-6 ethyl acetate
- 108-88-3 toluene
- 1330-20-7 xylene
- 100-41-4 ethylbenzene
- 80-62-6 methyl methacrylate
- 868-77-9 2-hydroxyethyl methacrylate
- 7631-86-9 silicon dioxide, chemically prepared
- 8013-07-8 Soybean oil, epoxidized (ESBO)

- *Primary irritant effect:*

- Skin corrosion/irritation

- No irritant effect.

- Serious eye damage/irritation

- No irritating effect.

- *Respiratory or skin sensitisation*

- No sensitising effects known.

- **Additional toxicological information:**

- 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:

- The product can cause deformations.

- *CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)*

- Repr. 2

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.

- **Additional ecological information:**

- *General notes:*

- Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

- Do not allow product to reach ground water, water course or sewage system.

- Danger to drinking water if even small quantities leak into the ground.

- **12.5 Results of PBT and vPvB assessment**

- *PBT:*

- Not applicable.

- *vPvB:*

- Not applicable.

- **12.6 Other adverse effects**

- No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- *European and swiss waste code*

- 08

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

- 08 01

(continued on page 8)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021
Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

wastes from MFSU and removal of paint and varnish
08 01 11
waste paint and varnish containing organic solvents or other hazardous substances

(continued of page 7)

- **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 3



IMDG
Class 3 Flammable liquids.

Label 3



IATA
Class 3 Flammable liquids.

Label 3



• **14.4 Packing group**

ADR II
IMDG II
IATA II

• **14.5 Environmental hazards:**

Not applicable.

• **14.6 Special precautions for user**

Warning: Flammable liquids.

Danger code (Kemler): 33

EMS Number: F-E,S-E

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

(continued on page 9)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461

(continued of page 8)

Not applicable.

• Transport/Additional information:

Not applicable.

Excepted quantities (EQ):	E2
Limited quantities (LQ)	5L
Transport category	2
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, 48

- **National regulations:**

- **Classification according to VbF:**

-

- **Technical instructions (air):**

- **Class Share in %**

III	37,74
II	20,19

- **Waterhazard class:**

Water hazard class 2 (Self-assessment): 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.
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.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

- **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)

(continued on page 10)

according to 1907/2006/EC, Article 31

2704323

Reviewed on: 28/06/2021

Printing date: 30/06/2021

PRODUCT : ALPOLAN DUOFINISH 5461*(continued of page 9)*

- 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)
- VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)
- 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.