

Section 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY**1.1. Product identifier:**

Trade name: APP Harter Klarlack X Gloss 2:1 - Acrylic lacquer hardener, free
Trade code: 020329

1.2. Relevant identified uses of the substance and uses advised against:

Varnish hardener.

Uses advised against:

Other.

1.3. Details of the supplier of the safety data sheet:

APP Sp. z o. o.

ul. Przemysłowa 10, 62 – 300 Września

Tel. +48 (061) 437 00 00

Fax: +48 (061) 437 91 37

Email: app@app.com.pl

Website: www.app.com.pl

Current safety data and technical information available on the website.

Person responsible for the product: **Product Management Department, dzp@app.com.pl**

1.4. Emergency telephone number:

+48 (61) 437 00 00 (between 8 a.m. and 4 p.m.)

Date of issue: 14 January 2026

Section 2. HAZARD IDENTIFICATION**2.1. Classification of the substance or mixture:**

Classification according to Table 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council (GHS Regulation) and based on data provided by the manufacturer:



GHS02



GHS07

Note

FlamLiq2: H226 Flammable liquid and vapour.

SkinSens1: H317 May cause an allergic skin reaction.

AcuteTox4: H332 Harmful if inhaled.

STOT SE3: H335 May cause respiratory irritation.

STOT SE3: H336 May cause drowsiness or dizziness.

AquaticChronic3: H412 Harmful to aquatic life with long-lasting effects.

2.2. Labelling elements:**Contains:**

Hexamethylene diisocyanate, oligomers

N-butyl acetate

2-Butoxyethyl acetate

Hydrocarbons, C9, aromatic

Signal word:

Caution

GHS pictograms:



GHS02



GHS07

Hazard statements:

H226 Flammable liquid and vapour.
 H317 May cause an allergic skin reaction.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H412 Toxic to aquatic life with long-lasting effects.
 EUH204 Contains isocyanates. May cause an allergic reaction.
 EUH 066 Repeated exposure may cause skin dryness or cracking.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. Do not smoke.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of water/...
 P304 + P340 IF INHALED: Remove or carry the victim to fresh air and keep them comfortable for breathing. the victim to fresh air and allow them to breathe freely.
 P370 + P378 In case of fire: use ABC powder extinguisher, foam extinguisher (AB), carbon dioxide extinguisher carbon dioxide (BC) extinguisher to extinguish the fire.
 P403 + P233 Store in a well-ventilated area. Keep container tightly closed.
 P501 Dispose of contents/container to an authorised waste disposal facility.

2.3. Other hazards:
UN: 1263

No information available on compliance with PBT or vPvB criteria in accordance with Annex XIII of Regulation 1907/2006 (REACH). No tests have been carried out.
 The product does not contain any ingredients listed in accordance with Article 59(1) as having endocrine disrupting properties or ingredients with endocrine disrupting properties endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100/EU or Regulation 2018/605/EU in a concentration equal to or greater than 0.1%.

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances:

Not applicable.

3.2. Mixtures:

The classification of substances contained in the product is given in accordance with Table 3 of Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council (GHS Regulation) and based on data provided by the manufacturer.

Name of hazardous substance	Concentration range	CAS number	Index number	EC number	Hazard symbols Hazard symbols
Hexamethylene diisocyanate oligomers REACH No.: 01-2119485493-29	25-<50 %	28182-81-2	None	500-060-2	GHS07; Note AcuteTox4: H332 SkinSens1: H317 STOT SE3: H335 ATE – Inhalation (dust/mist) 4.625 mg/l

Butyl acetate REACH No.: 01-2119485493-29	25-<50%	123-86-4	607-025-00-1	204-658-1	GHS02; GHS04 Note Flam.Liq.3: H226 STOT SE3: H336 EUH066
2-butoxyethyl acetate REACH registration number: 01-2119475112-47	10-25	112-07-2	607-038-00-2	203-933-3	GHS07 Note AcuteTox4: H312 AcuteTox4: H332
C9 hydrocarbons, aromatic H and P statements apply. Does not contain benzene. REACH Reg. No.: 01- 2119455851-35	7-<10%	none	none	918-668-5	GHS08 Flammable Liquid 3, H226 Aspiration Toxicity 1: H304 Aquatic Chronic 2: H411 ic STOT SE 3; H335+H336
Xylene REACH Reg. No.: 01-2119488216-32	<2.5%	1330-20-7	601-022-00-9	215-525-7	GHS02; GHS07 ; GHS08 Note FlamLiq3: H226 AcuteTox4: H312 AcuteTox4: H332 SkinIrrit2: H315 STOT SE3: H335 STOT RE2: H373 AspTox1: H304
Ethylbenzene REACH: 01-2119489370-35	<1%	100-41-4	601-023-00-4	202-849-4	GHS02; GHS07 ; GHS08 Flam. Liq.2: H225 AspTox1: H304 STOT RE2: H373 Acute Tox.4: H332 SkinIrrit2: H315 EyeIrrit2: H319 STOT SE3: H335

For the wording of the phrases used, see p. 16.

Section 4. FIRST AID MEASURES

4.1. Description of first aid measures:

4.1.1 First aid measures according to relevant routes of exposure:

Show the Safety Data Sheet to the doctor providing assistance. In case of exposure to vapours and aerosols of the product, move the affected person to a well-ventilated area - seek medical attention

- a) respiratory tract: immediately move the affected person to a well-ventilated area; place the affected person in a semi-recumbent position, loosen their clothing, ensure that there are no objects or secretions in the affected person's mouth that could impede breathing; if the affected person is not breathing, perform artificial respiration; seek medical assistance immediately.
- b) skin: remove contaminated clothing; wash contaminated skin with plenty of soap and water; do not use any solvents or thinners to wash the skin; apply a moisturising cream to the cleaned skin; if skin irritation occurs, consult a doctor.
- c) eyes: rinse contaminated eyes with your eyelids open under a steady stream of running water for 10 to 15 minutes; avoid a strong stream of water, which may damage the cornea; if burning or irritation persists, consult a

doctor; do not use any eye wash or ointment before consulting a doctor; if the affected person wears contact lenses, remove them if possible; seek medical attention if eye irritation occurs.

d) digestive tract: rinse mouth with plenty of running water; do not induce vomiting; if the affected person is conscious, give them small amounts of water to drink (approx. 0.2÷0.3 l); do not give anything to an unconscious person; if the affected person feels unwell, consult a doctor;

4.1.2. Other:

None.

4.2. Most important acute and delayed symptoms and effects of exposure:

Acute symptoms:

May cause an allergic skin reaction.

May cause respiratory irritation.

Harmful if inhaled.

May cause drowsiness or dizziness.

Contains isocyanates. May cause an allergic reaction.

Delayed symptoms:

May cause an allergic skin reaction.

May cause respiratory irritation.

May cause drowsiness or dizziness.

Contains isocyanates. May cause an allergic reaction.

4.3. Indications for any immediate medical attention and special treatment of the affected person:

If a significant amount of the product has been ingested, consult a doctor.

Section 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media:

- a) Recommended extinguishing media: Water spray, powder extinguishers, alcohol-resistant foam.
- b) Unsuitable extinguishing media: Avoid strong water jets, which may spread the fire.

5.2. Special hazards arising from the substance/mixture:

Vapours of the product form flammable and explosive mixtures with air. Vapours may rise to the source of ignition ignition source and return as a flashback. Heating, sparks or contact with fire may cause ignition. Emits toxic gases in a fire. Keep away from sources of ignition - no smoking during spraying. Keep out of the reach of children. Without adequate ventilation, explosive mixtures may form.

5.3. Information for the fire brigade:

Wear self-contained breathing apparatus and appropriate protective clothing.

Section 6. ACCIDENTAL RELEASE MEASURES

6.1. Individual precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

- wear protective clothing, gloves, goggles and a gas mask when removing the material

6.1.2. For emergency responders:

- when removing the material, avoid the formation and inhalation of vapours and aerosols
- wear well-fitting and close-fitting safety goggles, protective gloves and protective clothing

6.2. Environmental precautions:

- in case of large spills into water or soil, notify the relevant authorities

6.3. Methods and materials for preventing the spread of contamination and for decontamination:

6.3.1. Recommendations for preventing the spread of spillage:

- store and transport in sealed containers

- remove the product immediately

- do not allow the product to enter the water or drainage system

- rinse the area after removing the product and equipment that has come into contact with the product with water

6.3.2. Recommendations for spill clean-up:

- absorb with non-combustible absorbent material (e.g. diatomaceous earth)

- collect the absorbent in a well-labelled, sealable container

- eliminate all possible sources of ignition, do not smoke

6.3.3. Other information:

None

6.4. References to other sections:

See information in sections 8 and 13.

Section 7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

7.1.1. General recommendations:

- avoid electrical and electrostatic discharges

- do not allow vapour concentrations in the air to reach levels where mixtures with air may be explosive, or concentrations exceeding hygiene standards
- ensure easy access to fire extinguishing agents and equipment necessary for spill removal substances
- follow the general rules of occupational health and safety when working with chemicals and good industrial practice; strictly follow the procedures developed; when working with the product, apply the general health and safety regulations contained in the Regulation of the Minister of Labour and Social Policy of 30 December 2004 (Journal of Laws No. 11 of 2005, item 86); follow the recommendations contained in the instructions provided by the manufacturer
- do not allow contamination of eyes, skin and clothing
- avoid prolonged and repeated exposure

7.1.2. Occupational hygiene advice:

- do not eat or drink during use
- do not smoke while working with the product
- avoid creating and inhaling product vapours
- wear appropriate work clothing (protective clothing) and protective gloves (rubber or PVC) when working with the product
- an eye wash station must be available at the workplace
- observe personal hygiene rules
- Do not eat, drink or smoke while working with the product, except in designated areas; wash your hands before breaks and after finishing work, apply hand cream if necessary
- work in ventilated rooms

7.2. Conditions for safe storage, including any incompatibilities - Store the product in cool, dry and well-ventilated areas

- do not store near food/feed products
- packaging should be sealed and properly labelled
- for safety reasons, it is best to store the product in its original packaging
- protect packaging from mechanical damage

7.3. Specific end uses:

None.

Section 8. EXPOSURE CONTROLS AND PERSONAL PROTECTIVE EQUIPMENT

8.1. Control parameters:

8.1.1. Maximum permissible concentrations in the working environment:

According to the Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the working environment (Journal of Laws 2018, item 1286, as amended).

Xylenes:	NDS: 100 mg/m ³	NDSCh: 350 mg/m ³
Butyl acetate:	NDS: 200 mg/m ³	NDSCh: 950 mg/m ³
Ethylbenzene:	NDS: 200 mg/m ³	NDSCh: 400 mg/m ³

8.1.2. Recommended monitoring procedures:

- PN-89/Z-01001/06. Air purity protection. Names, definitions and units. Terminology relating to air quality testing in the workplace.
- PN-89/Z-04008/07. Air purity protection. Sampling. Rules for air sampling in the workplace and interpretation of results.
- PN-78/Z-04116/01. Air purity protection. Xylene content testing. Determination of xylene at workplaces using gas chromatography with sample enrichment.
- PN-89/Z-04023. Air purity protection. Testing the content (in mixtures) of harmful substances emitted from nitrocellulose paint products. Determination of acetone, alcohols: ethyl, n-butyl, isobutyl, ethoxyethyl, butoxyethyl; acetates: ethyl, n-butyl, ethoxyethyl, toluene and xylene at workplaces using gas chromatography.
- PN-68/Z-04051 Determination of ethyl acetate and butyl acetate in air.
- PN-78/Z-04119 Air purity protection. Testing for acetic acid esters. Determination of methyl, ethyl, propyl, butyl and amyl acetates at workplaces using gas chromatography with sample enrichment.
- PN-79/Z-04081/01. Air purity protection. Testing for ethylbenzene content. Determination of ethylbenzene at workplaces using gas chromatography with sample enrichment.

8.1.3. Maximum permissible concentration in biological material (DSB):

Xylene:

- substance determined: methyl hippuric acid
- permissible value DSB – 1.4 g/l calculated on the basis of an average urine density of 1.024
- biological material – urine

Remarks: sample taken once, at the end of daily exposure on any day.

Ethylbenzene:

- substance to be determined: mandelic acid



SAFETY DATA SHEET
Compliant with Commission Regulation (EU) 2020/878

Date of update: 14 January
2026

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Acrylic lacquer hardener free

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- permissible value DSB: 20 mg/h
- biological material: urine

Comments: when calculating the urinary excretion rate, approximately 2 hours before collecting the actual urine sample, an additional sample is collected to empty the bladder, which is not analysed. The time elapsed between the collection of both urine samples is recorded

8.1.4. DNEL and PNEC values:

No DNEL or PNEC values have been determined for the substance.

8.2. Exposure control:

8.2.1. Appropriate engineering controls:

Medical examinations of employees and tests and measurements of harmful factors shall be carried out in accordance with the applicable regulations.

8.2.2. Personal protective equipment:

- Eye or face protection: in case of frequent exposure, goggles or safety glasses that fit snugly against the face
- Skin protection: protective clothing (work clothes), protective gloves
- Respiratory protection: mask with absorber, multi-gas

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Physical state

Liquid

Colour

Colourless

Odour

Characteristic

Melting/freezing point

No data

Boiling point or initial boiling point and boiling range

145°C

Flammability of materials

No data

Lower and upper explosion limits

No data

Flash point

37°C

Auto-ignition temperature

300°C

Decomposition temperature

No data

pH

No data

Kinematic viscosity

>20.5 mm²/s (40°C)

Solubility

No data

Partition coefficient n-octanol/water (log value)

No data

Vapour pressure

826 Pa (20°C), 4144.29 Pa (°C)

Density or relative density

0.999 g/ml

Relative vapour density:

No data

Molecular characteristics

Not applicable

9.2. Other information:

Information on physical hazard classes

No data

Other safety properties

No data

Section 10. STABILITY AND REACTIVITY

10.1. Reactivity:

Reacts strongly with amines and alcohols – exothermic reaction. Reacts with water and moisture – carbon dioxide is released.

10.2. Chemical stability:

The product is chemically stable.

10.3. Possibility of hazardous reactions:

None

10.4. Conditions to avoid:

High temperature. Sources of ignition, sources of heat, sources of sparks.

10.5. Incompatible materials:

- strong acids
- strong oxidisers

10.6. Hazardous decomposition products:

- carbon oxides
- toxic gases and fumes

Section 11. TOXICOLOGICAL INFORMATION

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

a) Acute toxicity

Hexamethylene diisocyanate oligomers

ATE (rat, inhalation): 4.625 mg/l

Butyl acetate

LD50 (rat, oral): 10,768 mg/kg

LD50 (rabbit, skin): 17,600 mg/kg

LC50 (rat, inhalation): 23,400 mg/dm³ /4 hours

Harmful if inhaled.

b) Corrosive/irritant effect on the skin

No data available.

The mixture is not classified as hazardous in this category.

c) Serious eye damage/eye irritation

No data available.

The mixture is not classified as hazardous in this category.

d) Respiratory or skin sensitisation

May cause an allergic skin reaction.

e) Mutagenicity

No data available.

The mixture is not classified as hazardous in this category.

f) Carcinogenic effects

No data available.

The mixture is not classified as hazardous in this category.

g) Reproductive toxicity

No data available.

The mixture is not classified as hazardous in this category.

h) Specific target organ toxicity – single exposure

May cause respiratory irritation.

May cause drowsiness or dizziness.

i) Specific target organ toxicity – repeated exposure

No data available.

The mixture is not classified as hazardous in this category.

j) Aspiration hazard:

No data available.

The mixture is not classified as hazardous in this class.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

The product does not contain any ingredients listed in accordance with Article 59(1) as having endocrine disrupting properties, nor ingredients with endocrine disrupting properties endocrine disrupting properties in accordance with the criteria set out in Regulation 2017/2100/EU or Regulation 2018/605/EU in a concentration equal to or greater than 0.1%.

11.2.2. Other information

- no data available

Section 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Harmful to aquatic organisms, causing long-term effects.

Toxicity:

Hexamethylene diisocyanate oligomers

- for algae EC50: >1000 mg/l/72 hours

Butyl acetate

- for fish LC50: 18 mg/l/96 hours

- for invertebrates (Daphnia) EC50: 32 mg/l/48 hours

- for algae EC50: 675 mg/l/72 hours

12.2. Persistence and degradability:

The substance is biodegradable.

12.3. Bioaccumulative potential:

No data available.

12.4. Mobility in soil:

No data available.

12.5. Results of PBT and vPvB assessment:

None.

12.6. Endocrine disrupting properties

None.

12.7. Other adverse effects:

None.

Section 13. WASTE DISPOSAL

13.1. Waste disposal methods:

13.1.1. Product:

- type of waste: Waste paints and varnishes containing organic solvents or other hazardous substances

- waste code: 08 01 11*

- hazardous waste

If possible, recover and return to production. Do not dispose of with municipal waste. Do not dispose of in the sewer system. Do not allow contamination of surface water, groundwater and soil. Dispose of in accordance with current regulations on chemical waste. Dispose of only in designated areas, in installations or facilities that meet legal requirements.

13.1.2 Packaging:

- type of waste: Metal packaging

- waste code: 15 01 04

Section 14. TRANSPORT INFORMATION

LAND TRANSPORT:

14.1. **UN number or identification number:** 1263

14.2. **UN proper shipping name:** PAINT

14.3. **Transport hazard class:** 3

14.4. **Packing group:** III

14.5. **Environmental hazards:** none

14.6. **Special precautions for users:** None

14.7. **Transport by sea in bulk according to IMO instruments:**

not applicable

Other:

Identification code: F1

Labels: 3

Hazard identification number: 33

Section 15. REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for substances and mixtures:

1. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (30.12.2006 EN Official Journal of the European Union L 396/1) as amended (9.10.2008 EN Official Journal of the European Union L268/14; 17.2.2009 EN Official Journal of the European Union L46/3; 26.6.2009 EN Official Journal of the European Union L164/7; 1.4.2010 EN Official Journal of the European Union L86/7; 31.5.2010 EN Official Journal of the European Union L133/1; 18.2.; EN Official Journal of the European Union L44/2; 21.5.2011 EN Official Journal of the European Union L134/2) as amended.
2. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC

and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (known as the GHS Regulation) (31.12.2008 EN Official Journal of the European Union L 353/1), as amended.

3. Act of 28 May 2020 amending the Act on chemical substances and their mixtures and certain other acts (Journal of Laws 2020, item 1337)
4. Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the maximum permissible concentrations and intensities of factors harmful to health in the working environment () (Journal of Laws 2018, item 1286)
5. Regulation of the Minister of Health of 2 February 2011 on testing and measuring factors harmful to health in the work environment (Journal of Laws 2011, No. 33, item 166)
6. Commission Regulation (EU) No 252/2011 of 15 March 2011 amending Annex I to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
7. COMMISSION REGULATION (EU) No 253/2011 of 15 March 2011 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XIII
8. Regulation of the Minister of Development of 8 August 2016 on the limitation of emissions of volatile organic compounds contained in certain paints and varnishes intended for painting buildings and their finishing elements, fittings and related to buildings and these structural elements, and in mixtures for vehicle renovation (Journal of Laws 2016, item 1353)
9. Regulation of the Minister of Economy of 10 March 2014 amending the regulation on specific requirements for aerosol products (Journal of Laws 2014, item 345)
10. COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
11. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical safety assessment:

No data available.

Section 16. OTHER INFORMATION

Wording of the hazard statements listed in sections 2 and 3 of the data sheet:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	Swallowing and inhalation may be fatal.
H312	Harmful in contact with skin.
H315	Irritating to skin.
H317	May cause an allergic skin reaction.
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.
H412	Harmful to aquatic organisms, causing long-term effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

Medical examinations of employees and tests and measurements of harmful factors should be carried out in accordance with applicable regulations.

The above information has been compiled based on current knowledge and experience. However, it does not constitute a guarantee of product properties or quality specifications and cannot be used as a basis for complaints. The product should be transported, stored and used in accordance with applicable regulations and good practice and hygiene at work.

The manufacturer is not liable for any losses resulting directly or indirectly from the application of the above interpretation of regulations or instructions.

The information provided may not apply to mixtures of the product with other substances. The use of the information provided and the use of the product are not controlled by the manufacturer, and therefore it is the user's responsibility to create appropriate conditions for the safe handling of the product.