

1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** APP 2K-HS-Härter Express
- **Application of the substance / the preparation** Hardening agent/ Curing agent
- **Manufacturer/Supplier:**
APP Auto-Plast Produkt Sp.z o.o
ul. Przemysłowa 10
PL- 62-300 Wrzesnia
Tel.: +48 (0)61 437 00 00
Fax: +48 (0)61 437 91 37
e-mail: app@app.com.pl
www.app.com.pl
- **Further information obtainable from:** Laboratory
- **Information in case of emergency:** +48 (0)61 437 00 00

2 Hazards identification

- **Hazard description:**



Xi Irritant

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.

Has a narcotizing effect.

R 10 Flammable.

R 43 May cause sensitisation by skin contact.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 66 Repeated exposure may cause skin dryness or cracking.

R 67 Vapours may cause drowsiness and dizziness.

Contains isocyanates. See information supplied by the manufacturer







- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

| | | |
|--------------------------------------|---|----------|
| CAS: 28182-81-2 NLP: 500-060-2 | Aliphatic polyisocyanate homopolymer (classification according to definition principle)  Xi; R 43 | 50-100% |
| CAS: 123-86-4 EINECS: 204-658-1 | n-butyl acetate R 10-66-67 | 10-25% |
| CAS: 77-58-7 EINECS: 201-039-8 | dibutyltin dilaurate  Xn, Xi, N; R 36/38-48/22-50/53 | ≤2,5% |
| CAS: 141-78-6 EINECS: 205-500-4 | ethyl acetate  Xi, F; R 11-36-66-67 | 10-25% |
| CAS: 64742-95-6 EINECS: 265-199-0 | Solvent naphtha (petroleum), light arom.  Xn,  Xi,  N; R 10-37-51/53-65-66-67 | 2.5-<10% |

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· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- **General information:** In case of irregular breathing or respiratory arrest provide artificial respiration.
- **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.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

5 Fire-fighting measures

- **Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards caused by the substance, its products of combustion or resulting gases:**
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
Hydrogen cyanide (HCN)
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.
 - **Measures for environmental protection:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
 - **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Contain and collect spillages with non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth) and place in a suitable container.
Decontaminate immediately with suitable mixture (flammable):
 - as such usable (inflammatory!):

| | |
|----------------------------------|----------|
| water | 45 Vol.% |
| ethanol or isopropanol | 50 Vol.% |
| ammonia solution (Density= 0.88) | 5 Vol.% |
 - alternatively (non-flammable):

| | |
|------------------|----------|
| sodium carbonate | 5 Vol.% |
| water | 95 Vol.% |
- Add the same decontaminant to any residues and allow to stand for several days in an non-sealed container until no further reaction occurs. Once this stage is reached, close the container and dispose of in accordance with the waste regulations (see Section 13).

7 Handling and storage

- **Handling:**
- **Information for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

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Persons with a history of asthma, allergies or chronic or recurrent respiratory diseases should only be employed in processes in which this product is used under appropriate medical supervision.

· **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Keep container tightly sealed.

Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohol and water.

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

28182-81-2 Aliphatic polyisocyanate homopolymer (classification according to definition principle)

| | |
|-----|--|
| EBW | Short-term value: 0.5 mg/m ³ exposition evaluation valu TRGS 430 (EBW) |
|-----|--|

123-86-4 n-butyl acetate

| | |
|-----|---|
| WEL | Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm |
|-----|---|

108-65-6 2-methoxy-1-methylethyl acetate

| | |
|-----|--|
| WEL | Short-term value: 548 mg/m ³ , 100 ppm Long-term value: 274 mg/m ³ , 50 ppm Sk |
|-----|--|

112-07-2 2-butoxyethyl acetate

| | |
|-----|---|
| WEL | Short-term value: 50 ppm Long-term value: 20 ppm Sk |
|-----|---|

· **Additional information:** The lists valid during the making were used as basis.

· **Personal protective equipment:**

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

· **General protective and hygienic measures:**

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

Short term filter device:

Filter A/P2

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.

· **Protection of hands:**



Protective gloves

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.

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Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **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**

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

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

· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

PVA gloves

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **General Information**

| | |
|----------------|------------------------------------|
| Form: | Fluid |
| Colour: | According to product specification |
| Odour: | Characteristic |

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: 124°C

· **Flash point:** 30°C (DIN 53213)

· **Ignition temperature:** 280.0°C (DIN 51794)

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower: 1.2 Vol %

Upper: 10.8 Vol %

· **Vapour pressure at 20°C:** 10.7 hPa

· **Density at 20°C:** 1.031 g/cm³ (DIN 53217)

· **Solubility in / Miscibility with water:**

Not miscible or difficult to mix.

· **Viscosity:**

Kinematic at 20°C: 13 s (DIN 53211/4)

· **Solvent separation test:** < 3 %

· **Solvent content:**

Organic solvents: 46.1 %

VOC (EC) 475.1 g/l

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· **Solids content (weight-%):** 53.9 %

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous decomposition products:** Hydrogen cyanide (prussic acid)

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values relevant for classification:**

64742-95-6 Solvent naphtha (petroleum), light arom.

| | | |
|------|------|-------------------|
| Oral | LD50 | >6800 mg/kg (rat) |
|------|------|-------------------|

| | | |
|--------|------|-------------------|
| Dermal | LD50 | >3400 mg/kg (rab) |
|--------|------|-------------------|

| | | |
|------------|----------|------------------|
| Inhalative | LC50/4 h | >10.2 mg/l (rat) |
|------------|----------|------------------|

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** Sensitization possible through skin contact.

· **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:

Irritant

· **Sensitisation** May cause sensitisation by skin contact.

12 Ecological information

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **General notes:**

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.

Harmful to aquatic organisms

13 Disposal considerations

· **Product:**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

| | |
|----------|---|
| 08 01 11 | waste paint and varnish containing organic solvents or other dangerous substances |
|----------|---|

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

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14 Transport information

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 (F1) Flammable liquids.
- **Danger code (Kemler):** 30
- **UN-Number:** 1263
- **Packaging group:** III
- **Hazard label:** 3
- **Description of goods:** 1263 PAINT RELATED MATERIAL, special provision 640E

· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Proper shipping name:** PAINT RELATED MATERIAL

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **Proper shipping name:** PAINT RELATED MATERIAL

15 Regulatory information

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

Xi Irritant

· Hazard-determining components of labelling:

Aliphatic polyisocyanate homopolymer (classification according to definition principle)

· Risk phrases:

- 10 Flammable.
- 36 Irritating to eyes.
- 43 May cause sensitisation by skin contact.
- 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- 66 Repeated exposure may cause skin dryness or cracking.
- 67 Vapours may cause drowsiness and dizziness.

· Safety phrases:

- 2 Keep out of the reach of children.

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- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes/aerosol.
- 24/25 Avoid contact with skin and eyes.
- 37 Wear suitable gloves.
- 46 If swallowed, seek medical advice immediately and show this container or label.

· **Special labelling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer

· **National regulations:**

· **Information about limitation of use:**

None of the ingredients is listed.

| Class | Share in % |
|-------|------------|
| NK | 25-50 |

Valid regulations:

1. Decree of European Council no. 1907/2006 from 16.12.2006 regarding registering, evaluation, certification and authorizations in range of chemicals (REACH), creation of European Chemicals Agency, changing Directive 1999/45/EC and cancelling decree of Council no. 793/93 and decree of Commission no.1488/94, as well as directives 76/769/EC, 91/155/EC, 93/67/EC, 93/105/EC and 2000/21/EC (30.12.2006 PL Official Journal of European Union L 396/1)
2. Act from 11.01.2001 regarding chemical substances and products (Journal of Laws No. 11 pos. 84 from 2001) with later changes.
3. Act from 27.04.2001 regarding wastes (Journal of Laws No.62 pos. 628 from 2001) with decree of Minister of Environment (Journal of Laws No. 152 pos. 1735 – 1737 from 2001)
4. Act from 11.05.2001 regarding packages and packing materials (Journal of Laws No. 63 pos. 638 from 2001) with later changes.
5. Announcement of Polish Parliament Marshal from 04.07.2006 regarding announcement of uniform act text – Environment protection law (Journal of Laws No. 129 pos. 902 from 2006)
6. Act from 28.10.2002 regarding road transport of dangerous products (Journal of Laws No. 199 pos. 1671 from 2002) with later changes.
7. Decree of Minister of Health from 30.04.2004 regarding dangerous substances and products, which packages must be equipped with closures, impeding opening by children and equipped with danger warning (Journal of Laws No. 128 pos. 1348 from 2004)
8. Decree of Minister of Health from 02.09.2003 regarding marking of packages of dangerous substances and products (Journal of Laws No. 173 pos. 1679 from 2003) with change from 09.11.2004. (Journal of Laws No. 260 from 2004) with giving consideration to Directive 2006/8/EC from 23.01.2006
9. Decree of Minister of Health from 02.09.2003 regarding criteria and classification method of chemical substances and products (Journal of Laws No. 171 pos. 1666 from 2003) with change from 04.11.2007. (Journal of Laws No. 174 pos. 1222)
10. Decree of Minister of Health from 13.11.2007 regarding characteristics card (Journal of Laws No. 215 pos. 1588 from 2007)
11. Decree of Minister of Health from 28.09.2005 regarding list of dangerous substances with classification and marking (Journal of Laws No. 201 pos. 1674 from 2005)
12. Decree of Minister of Labour and Social Policy from 29.11.2002 regarding TLV of harmful factors in work environment (Journal of Laws No. 217 pos. 1833 from 2002) with change (Journal of Laws No. 217 pos. 1833 from 2005 and Journal of Laws No. 161 pos. 1142 from 2007)
13. Government declaration from 26.07.2005 regarding coming into force changes to appendices A and B of European agreement, regarding international road transport of dangerous products (ADR), made out in Geneva in 30.09.1957 (Journal of Laws No. 178 pos. 1481 from 2005)
14. Decree of Minister of Environment from 27.09.2001 regarding waste catalogue (Journal of Laws No. 112 pos. 11206 from 2001)
15. Decree of Minister of Labour and Social Policy from 11.06.2002, changing the decree regarding general industrial safety regulations (Journal of Laws No. 91 pos. 811 from 2002)
16. Decree of Minister of Economy from 09.06.2006, changing the decree regarding minimum requirements of industrial safety for employees in work stations, where explosive atmosphere may occur (Journal of Laws No. 121 pos. 836 from 2006)
17. Decree of Government from 30.07.2002 changing the decree regarding list of works forbidden for women (Journal of Laws No. 127 pos. 1092 from 2002)
18. Decree of Minister of Health from 20.04.2005 regarding tests and measurement of harmful factors in work environment (Journal of Laws No. 73 pos. 645 from 2005)
19. Decree of Minister of Health and Social Security from 30.05.1996 regarding medical examinations of employees, prophylactic health care of employees and medical certificates, issued for purposes provided in labour code (Journal of Laws No. 69 pos. 332 from 1996) with later changes (Journal of Laws No. 37 pos. 451 and Journal of Laws No. 128 pos. 1405 from 2001)
20. Decree of Government from 24.08.2004 regarding list of works forbidden for juvenile and conditions of their employing in some works (Journal of Laws No. 200 pos. 2047 from 2004) with later changes (Journal of Laws No. 136 pos. 1145 from 2005)
21. Decree of Minister of Economy and Labour from 05.07.2004 regarding limitations, production prohibition or conditions, turnover or application of dangerous substances and products (Journal of Laws No. 168 pos. 1762 from 2004) with later changes (Journal of Laws No. 39 pos. 372 from 2005 and Journal of Laws No. 127 pos.887 from 2006)
22. Decree of Minister of Health from 01.12.2004 regarding carcinogenic substances, products, factors or technological processes with carcinogenic or mutagenic influence in work environment (Journal of Laws No. 280 pos. 2771 from 2004) with later changes (Journal of Laws No. 160 pos. 1356 from 2005)
23. Act from 29.07.2005 regarding drug addiction fight (Journal of Laws No. 179 pos. 1485 from 2005) with change (Journal of Laws No. 120 pos. 826 from 2006 and decree of European Parliament and Council from 11.02.2004 regarding drugs precursors (Official Journal EC L 047 from 18.02.2005) and decree of Council No. 111/2005 from 22.12.2004, defining rules of trade supervision of drugs precursors between Union and third countries (Official Journal EC L 22 from 16.01.2005, page 1; Official Journal EC Polish special edition from 2005, part 48, page 1).

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* **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 R-phrases**

- 10 *Flammable.*
- 20/21 *Harmful by inhalation and in contact with skin.*
- 36 *Irritating to eyes.*
- 37 *Irritating to respiratory system.*
- 43 *May cause sensitisation by skin contact.*
- 51/53 *Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.*
- 65 *Harmful: may cause lung damage if swallowed.*
- 66 *Repeated exposure may cause skin dryness or cracking.*
- 67 *Vapours may cause drowsiness and dizziness.*

· **Department issuing MSDS:** APP Auto-Plast Produkt Sp.z o.o

· **Contact:** Rafal Roguszka

· * **Data compared to the previous version altered.**