

# SAFETY DATA SHEET



H14 Hardener 2K Fast

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

**Product name and/or code** : H14 Hardener 2K Fast  
**Area of application** : Vehicle Refinishing Paint  
**Manufacturer** : ADPCC  
Zuiveringweg 89  
8243 PE Lelystad  
the Netherlands  
tel: +31 (0)320 264665  
fax: +31 (0)320 264781  
**Emergency telephone number of the company** : Call: +31 (0)320 292200 (during daytime)

## 2. Composition/information on ingredients

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Chemical name*	CAS number	%	EC number	Classification
Aliphatic isocyanate.	28182-81-2	25 - 50	500-060-2	Xn; R20/21 R42/43
Xylene	1330-20-7	25 - 50	215-535-7	R10 Xn; R20/21 Xi; R38
Ethyl acetate	141-78-6	12.5 - 25	205-500-4	F; R11 Xi; R36 R66, R67
n-butyl acetate	123-86-4	5 - 12.5	204-658-1	R10 R66, R67
Ethylbenzene	100-41-4	5 - 12.5	202-849-4	F; R11 Xn; R20
2-Methoxy-1-methylethyl acetate	108-65-6	1 - 5	203-603-9	R10 Xi; R36
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

## 3. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F; R11  
Xn; R20/21  
Xi; R38  
R42/43  
**Physical/chemical hazards** : Highly flammable.  
**Human health hazards** : Harmful by inhalation and in contact with skin.  
Irritating to skin.  
May cause sensitisation by inhalation and skin contact.

## 4. First-aid measures

### First-aid measures

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Give nothing by mouth. If unconscious, place in recovery position and seek medical advice.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do not use solvents or thinners.
- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do not induce vomiting.

## 5. Fire-fighting measures

- Extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray or mist.  
Not to be used : water jet.
- Recommendations** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not release runoff from fire to sewers or waterways.

## 6. Accidental release measures

- Personal precautions** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- Spill** : 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 (see section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13). Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

**Note:** see section 8 for personal protective equipment and section 13 for waste disposal.

## 7. Handling and storage

**Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.**

**Examination of lung function should be carried out on a regular basis on persons spraying this preparation.**

- Handling** : Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.

To dissipate static electricity during transfer, earth drum and connect to receiving

## 7. Handling and storage

container with bonding strap. Operators should wear antistatic footwear and clothing and floors should be of the conducting type.

Keep container tightly closed. Precautions should be taken to minimise exposure to atmospheric humidity or water. CO<sub>2</sub> will be formed, which, in closed containers, could result in pressurisation. Care should be taken when re-opening partly-used containers. Keep away from heat, sparks and flame. No sparking tools should be used.

Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.

Eating, drinking and smoking should be prohibited in area where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking.

Put on appropriate personal protective equipment (see section 8).

Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one.

Comply with the health and safety at work laws.

### Storage

- : Store in accordance with local regulations. Observe label precautions. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Keep away from heat and direct sunlight.

Keep away from: oxidising agents, strong alkalis, strong acids, amines, alcohols, water.

No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Do not empty into drains..

## 8. Exposure controls/personal protection

Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this preparation is used.

Examination of lung function should be carried out on a regular basis on persons spraying this preparation.

### Engineering measures

- : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn. (See Personal protection.)

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
Xylene	<b>EU OEL (Europe, 6/2000). Skin</b> STEL: 442 mg/m <sup>3</sup> 15 minute/minutes. Form: All forms STEL: 100 ppm 15 minute/minutes. Form: All forms TWA: 221 mg/m <sup>3</sup> 8 hour/hours. Form: All forms TWA: 50 ppm 8 hour/hours. Form: All forms
Ethyl acetate	<b>80/1107/EEC (Europe).</b> TWA: 400 ppm CEIL: 300 ppm TWA: 1440 mg/m <sup>3</sup> CEIL: 1100 mg/m <sup>3</sup>

## 8. Exposure controls/personal protection

n-butyl acetate	<b>ACGIH TLV (United States, 9/2004). Notes: 1998 Adoption.</b> STEL: 200 ppm 15 minute/minutes. Form: All forms TWA: 150 ppm 8 hour/hours. Form: All forms
Ethylbenzene	<b>EU OEL (Europe, 6/2000). Skin</b> STEL: 884 mg/m <sup>3</sup> 15 minute/minutes. Form: All forms STEL: 200 ppm 15 minute/minutes. Form: All forms TWA: 442 mg/m <sup>3</sup> 8 hour/hours. Form: All forms TWA: 100 ppm 8 hour/hours. Form: All forms
2-Methoxy-1-methylethyl acetate	<b>EU OEL (Europe, 6/2000). Skin Notes: Indicative</b> STEL: 550 mg/m <sup>3</sup> 15 minute/minutes. Form: All forms STEL: 100 ppm 15 minute/minutes. Form: All forms TWA: 275 mg/m <sup>3</sup> 8 hour/hours. Form: All forms TWA: 50 ppm 8 hour/hours. Form: All forms

### Personal protective equipment

- Respiratory system** : By spraying: air-fed respirator.  
By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask.
- Skin and body** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.
- Hands** : For prolonged or repeated handling, use gloves: nitrile.  
  
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.
- Eyes** : Use safety eyewear designed to protect against splash of liquids.

### Environmental exposure controls

Do not allow to enter drains or watercourses.

## 9. Physical and chemical properties

- Physical state** : Liquid.
- Colour** : Clear.
- Flash point** : Closed cup: 12°C (53.6°F).
- Specific gravity** : 0.962 (Water = 1)
- Vapour density** : The highest known value is 4.6 (Air = 1) (2-Methoxy-1-methylethyl acetate).  
Weighted average: 3.64 (Air = 1)
- Lower explosion limit** : The greatest known range is Lower: 1.2% Upper: 10.8% (2-Methoxy-1-methylethyl acetate)
- Solubility** : Insoluble in cold water, hot water.

## 10. Stability and reactivity

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide.

Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids, amines, alcohols, water.

Uncontrolled exothermic reactions occur with amines and alcohols.

The product reacts slowly with water, resulting in the production of carbon dioxide. In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container.

## 11. Toxicological information

Based on the properties of the isocyanate components and considering toxicological data on similar preparations, this preparation may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Repeated or prolonged contact with irritants may cause dermatitis. If splashed in the eyes, the liquid may cause irritation and reversible damage.

Contains (Aliphatic isocyanate.). May produce an allergic reaction.

## 12. Ecological information

There is no data available on the preparation itself.  
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is not classified as dangerous for the environment.

### Ecotoxicity data

<u>Product/ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>	
Xylene	Oncorhynchus mykiss (LC50)	96 hour/hours	3.3 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour/hours	8.2 mg/l	
	Lepomis macrochirus (LC50)	96 hour/hours	8.6 mg/l	
	Lepomis macrochirus (LC50)	96 hour/hours	12 mg/l	
	Lepomis macrochirus (LC50)	96 hour/hours	13.3 mg/l	
	Pimephales promelas (LC50)	96 hour/hours	13.4 mg/l	
	Ethyl acetate	Pimephales promelas (EC50)	48 hour/hours	260 mg/l
		Scenedesmus subspicatus (EC50)	48 hour/hours	3300 mg/l
		Scenedesmus subspicatus (EC50)	48 hour/hours	5600 mg/l
		Pimephales promelas (LC50)	96 hour/hours	230 mg/l
n-butyl acetate	Oncorhynchus mykiss (LC50)	96 hour/hours	425.3 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour/hours	484 mg/l	
	Pimephales promelas (LC50)	96 hour/hours	66 mg/l	
	Pimephales promelas (LC50)	24 hour/hours	205 mg/l	
	Lepomis macrochirus (EC50)	72 hour/hours	675 mg/l	
Ethylbenzene	Daphnia magna (EC50)	48 hour/hours	2.93 mg/l	
	Daphnia magna (EC50)	48 hour/hours	2.97 mg/l	
	Selenastrum capricornutum (EC50)	48 hour/hours	7.2 mg/l	
	Oncorhynchus mykiss (LC50)	96 hour/hours	4.2 mg/l	
	Pimephales promelas (LC50)	96 hour/hours	9.09 mg/l	
2-Methoxy-1-methylethyl acetate	Poecilia reticulata (LC50)	96 hour/hours	9.6 mg/l	
	Fish (LC50)	96 hour/hours	161 mg/l	

### Ecological information

#### Persistence/degradability

## 12. Ecological information

<u>Product/ingredient name</u>	<u>BOD<sub>5</sub></u>	<u>COD</u>	<u>ThOD</u>
Ethyl acetate	0.293 g O <sub>2</sub> /g	1.54 g O <sub>2</sub> /g	-
n-butyl acetate	0.15 to 0.5 g O <sub>2</sub> /g	2.32 g O <sub>2</sub> /g	2.21 g O <sub>2</sub> /g
<u>Product/ingredient name</u>	<u>Aquatic half-life</u>	<u>Photolysis</u>	<u>Biodegradability</u>
Ethyl acetate	-	-	Readily
n-butyl acetate	-	-	Not readily

## 13. Disposal considerations

Do not allow to enter drains or watercourses. Residues in empty containers should be neutralised with a decontaminant (see section 6).

Dispose of according to all federal, state and local applicable regulations.

**Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.

## 14. Transport information

### Land - road/railway

<b>UN number</b>	: 1263
<b>Transport document name</b>	: Paint related material (Xylene)
<b>Special provision 640</b>	: D
<b>ADR/RID Class</b>	: 3
<b>Packing group</b>	: II
<b>ADR/RID Label</b>	:



### Sea

<b>UN number</b>	: 1263
<b>Proper shipping name</b>	: Paint related material (Xylene)
<b>IMDG Class</b>	: 3
<b>Packing group</b>	: II
<b>IMDG Label</b>	:



<b>Marine pollutant</b>	: No.
<b>Emergency schedules (EmS)</b>	: 3-05

### Air

<b>UN number</b>	: 1263
<b>Proper shipping name</b>	: Paint related material (Xylene)
<b>ICAO/IATA Classification</b>	: 3
<b>Packing group</b>	: II
<b>ICAO/IATA label</b>	:



### Inland waterways

<b>UN number</b>	: 1263
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## 14. Transport information

**Proper shipping name** : Paint related material (Xylene)  
**ADNR Classification** : 3  
**Packing group** : II  
**ADNR Label** :



## 15. Regulatory information

**EU regulations** : The product is labelled as follows, in accordance with local regulations:

**Hazard symbol/symbols** :



Highly flammable, Harmful

**Risk phrases** : R11- Highly flammable.  
R20/21- Harmful by inhalation and in contact with skin.  
R38- Irritating to skin.  
R42/43- May cause sensitisation by inhalation and skin contact.

**Safety phrases** : S16- Keep away from sources of ignition - No smoking.  
S23- Do not breathe vapour spray.  
S36/37- Wear suitable protective clothing and gloves.  
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
S51- Use only in well-ventilated areas.

**Contains** : Aliphatic isocyanate.  
Xylene

### Other EU regulations

**Additional warning phrases** : Contains isocyanates. See information supplied by the manufacturer. This information is provided by the current Safety Data Sheet.

**EU statistical classification (Tariff Code)** : 32089091

## 16. Other information

**CEPE Classification** : 5  
**Full text of R-phrases referred to in sections 2 and 3 - Europe** : R11- Highly flammable.  
R10- Flammable.  
R20- Harmful by inhalation.  
R20/21- Harmful by inhalation and in contact with skin.  
R36- Irritating to eyes.  
R38- Irritating to skin.  
R42/43- May cause sensitisation by inhalation and skin contact.  
R66- Repeated exposure may cause skin dryness or cracking.  
R67- Vapours may cause drowsiness and dizziness.

The information in this Safety Data Sheet is required according to EU Directive 91/155/EEC and its amendments.

**Date of issue** : 5/24/2005.

**Version** : 1.5

**Notice to reader**

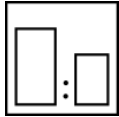
## 16. Other information

*The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.*



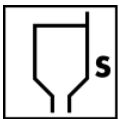
## H14 Hardener 2K Fast

### APPLICATION DATA



**Mixing Ratio**

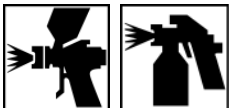
: See info Series 400/700, C60 and the Surfacer/Fillers.



**Application viscosity**  
**DINCUP 4mm/20°C**

: Airspray (sec) : -  
 Pressure tank (sec) : -  
 Airless (sec) : -

(\* ) Once opened a tin can be kept for not longer than one week, depending on temperatures and humidity. The tin should be closed immediately after use.



Gravity feed  
 Suction feed  
 Pressure tank  
 Airless  
 HVLP / LVLP  
 HR

Nozzle diameter (mm)

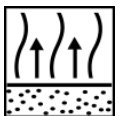
Spraying pressure (bar)

-	-
-	-
-	-
-	-
-	See info manufacturer
-	See info manufacturer



**Spray coats / Layer thickness**  
**(µm)**

: - / -



**Flash-off (min)**

: -



**Drying time (min)**

**20°C**

: -

**60°C Obj.**

: -

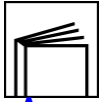


**Potlife (min)**

**20°C**

: -

The technical data in these publications are based on our present knowledge and give you an idea of the various applications without obligations.

**H14 Hardener 2K Fast****PRODUCT INFO**

- Area of application** : Car repair and commercial vehicles.
- Chemical base** : Non-yellowing, highly durable isocyanate resin
- General qualities** : 2K Hardener Fast : Spot-repair, total respray ; 12-35°C.
- Product group according to CEPE.** : Multi layer finishing: Base layer and Clear. Max.VOC-amount in this group 420 g/L: average weight of the Base layer and Clear layer (ready to use) according to European legislation; Apart from that what must apply is: 480 g/L: ready to use Base layer or Clear as loose components. Primer Surfacer (1 / 2 Components).  
**Max. VOC content in this group in accordance with European legislation.** Max.VOC-amount in this group 540 g/L (ready to use) according to European legislation EU. 1 / 2 Component paints 1 Layer. Max.VOC-amount in this group 420 g/L (ready to use) according to European legislation.
- Auxiliary materials** : Series 400, Series 700, C60, C65, PF131, PF132, PF135, TA900/TA910/TA920
- VOC content (ASTM-D3960-69) (g/l)** : >420 (ready to use clear). <540 (ready to use PF131/PF132). >540 (ready to use PF135)

<b>Physical properties</b>	<b>Specific gravity (kg/l)</b>	: 0.962 (Water = 1)
	<b>Flash point</b>	: Closed cup: 12°C (53.6°F).
	<b>Vol.% solids</b>	: 35
	<b>Economy</b>	: 7 m <sup>2</sup> /L/50 µm
	<b>Gloss</b>	:
	<b>Colour</b>	: Clear.

- Substrates** : See info Series 400/700, C60 and Surfacer/Fillers.
- Undercoats** : See Info Series 400/700, C60 and the Surfacer/Fillers.
- Finishing materials** : See info Series 400/700, C60 and the Surfacer/Fillers.
- Cleaning the equipment** : TR51 Gun Cleaner
- Storage life (years)** : min. 1 (\*)  
(Under normal storage conditions and unopened tins).

The technical data in these publications are based on our present knowledge and give you an idea of the various applications without obligations.