



This product is for the professional painting of vehicles only after reference to the manufacturer's data sheet.

SAFETY DATA SHEET

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

Product name and/or code : Universal Hardener Fast

Manufacturer : Akzo Nobel Car Refinishes bv
Rijksstraatweg 31
2171 AJ Sassenheim
The Netherlands
Phone: +31 (0)71 308 6944
<http://www.lesonal.com>

Emergency telephone number of the company : + 31 (0)71 308 6944

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 no.	%	EC number	Classification
hexane, 1,6-diisocyanato-, homopolymer xylene	28182-81-2 1330-20-7	25 - 50 10 - 25	500-060-2 215-535-7	R43 R10 Xn; R20/21 Xi; R38
Solvent naphtha (petroleum), light arom.	64742-95-6	10 - 25	265-199-0	R10 Xn; R65 Xi; R37 R66, R67 N; R51/53
ethylbenzene	100-41-4	2.5 - 10	202-849-4	F; R11 Xn; R20
n-butyl acetate	123-86-4	2.5 - 10	204-658-1	R10 R66, R67
See section 16 for the full text of the R-phrases declared above				
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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 : R10
Xn; R20/21, R65
Xi; R38
R43
R52/53

Physical/chemical hazards : Flammable.

Human health hazards : Harmful by inhalation and in contact with skin. Harmful: may cause lung damage if swallowed. Irritating to skin. May cause sensitisation by skin contact.

Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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, CO₂, 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 product 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 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. CO₂ 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 areas 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 product 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.)

Ingredient name

Occupational exposure limits

xylene	EH40-WEL (United Kingdom (UK), 9/2006). Skin WEL 15 min limit: 441 mg/m ³ 15 minute(s). WEL 15 min limit: 100 ppm 15 minute(s). WEL 8 hrs limit: 220 mg/m ³ 8 hour(s). WEL 8 hrs limit: 50 ppm 8 hour(s).
Solvent naphtha (petroleum), light arom.	European Hydrocarbon Solvent Suppliers (CEFIC-HSPA) methodology (Europe). Notes: Suppliers information TWA: 100 mg/m ³ 8 hour(s).
ethylbenzene	EH40-WEL (United Kingdom (UK), 9/2006). Skin WEL 15 min limit: 552 mg/m ³ 15 minute(s). WEL 15 min limit: 125 ppm 15 minute(s). WEL 8 hrs limit: 441 mg/m ³ 8 hour(s). WEL 8 hrs limit: 100 ppm 8 hour(s).
n-butyl acetate	EH40-WEL (United Kingdom (UK), 9/2006). WEL 15 min limit: 966 mg/m ³ 15 minute(s). WEL 15 min limit: 200 ppm 15 minute(s). WEL 8 hrs limit: 724 mg/m ³ 8 hour(s). WEL 8 hrs limit: 150 ppm 8 hour(s).

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

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.
Flash point	: Closed cup: 26°C (78.8°F)
Viscosity	: Kinematic: 0.101215 cm ² /s (10.1215 cSt) Kinematic (40°C): 0.043 cm ² /s (4.3 cSt)
Relative density	: 0.988

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 hexane, 1,6-diisocyanato-, homopolymer. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
xylene	LD50 Dermal	Rabbit	>1700 mg/kg	-
	LD50 Intraperitoneal	Rat	2459 mg/kg	-
	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Subcutaneous	Rat	1700 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
solvent naphtha (petroleum), light arom. ethylbenzene	LD50 Dermal	Rabbit	17800 uL/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-
	TDLo	Rat	1062 mg/kg	-
	Intraperitoneal			
n-butyl acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

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 classified for eco-toxicological properties accordingly. See Sections 2 and 15 for details.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
xylene	Mortality	Acute LC50 13.4 mg/L	Fish	96 hours
	Mortality	Acute LC50 13.3 mg/L	Fish	96 hours
	Mortality	Acute LC50 12 mg/L	Fish	96 hours
	Mortality	Acute LC50 8.6 mg/L	Fish	96 hours
	Mortality	Acute LC50 8.2 mg/L	Fish	96 hours
	Mortality	Acute LC50 3.3 mg/L	Fish	96 hours
ethylbenzene	Population	Acute EC50 7.2 mg/L	Algae	48 hours
	Intoxication	Acute EC50 2.97 mg/L	Daphnia	48 hours
	Intoxication	Acute EC50 2.93 mg/L	Daphnia	48 hours
	Mortality	Acute LC50 4.2 mg/L	Fish	96 hours
	Mortality	Acute LC50 9.09 mg/L	Fish	96 hours
	Mortality	Acute LC50 9.6 mg/L	Fish	96 hours
n-butyl acetate	Behavior	Acute EC50 19 mg/L	Fish	48 hours
	Mortality	Acute LC50 100 mg/L	Fish	96 hours
	Mortality	Acute LC50 18 mg/L	Fish	96 hours

Conclusion/Summary : Not available.

Ecological information

Biodegradability

Conclusion/Summary : Not available.

Product/ingredient name

Solvent naphtha (petroleum), light arom.

Aquatic half-life

-

Photolysis

-

Biodegradability

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

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Land - road/railway

UN number : UN1263

Transport document name : PAINT RELATED MATERIAL

ADR/RID Class : 3

Packing group : III

ADR/RID Label

:



Sea

UN number : UN1263
 Proper shipping name : PAINT RELATED MATERIAL
 Special provisions : Not available.
 Marine pollutant substances : solvent naphtha (petroleum), light arom.
 IMDG Class : 3
 Packing group : III
 IMDG Label :



Marine pollutant : P
 Emergency schedules (EmS) : F-E, S-E

Air

UN number : UN1263
 Proper shipping name : PAINT RELATED MATERIAL
 Special provisions : Not available.
 ICAO/IATA Classification : 3
 Packing group : III
 The "viscosity exemption" provisions do not apply to air transport.
 ICAO/IATA label :



Inland waterways

UN number : UN1263
 Proper shipping name : PAINT RELATED MATERIAL
 ADNR Classification : 3
 Packing group : III
 ADNR Label :



15. Regulatory information

EU regulations

: The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

Hazard symbol or symbols

:



Harmful

Risk phrases

: R10- Flammable.
 R20/21- Harmful by inhalation and in contact with skin.
 R65- Harmful: may cause lung damage if swallowed.
 R38- Irritating to skin.
 R43- May cause sensitisation by skin contact.
 R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases

: S36/37- Wear suitable protective clothing and gloves.

Contains	: hexane, 1,6-diisocyanato-, homopolymer xylene
Additional warning phrases	: Contains isocyanates. See information supplied by the manufacturer. This information is provided by the present Safety Data Sheet.
Industrial use	: The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.
VOC content (industrial use)	: Contains 51.3457 wt% VOC. Contains 0 wt% carbon as VOC. This product contains a VOC or VOC's. You may be subject to environmental control legislation under Integrated Pollution Control (IPC) or Integrated Pollution Prevention and Control (IPPC) Regulations. Contact your local Environmental Agency Office if in doubt.

16. Other information

CEPE Classification	: 5
Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK)	: R11- Highly flammable. R10- Flammable. R20- Harmful by inhalation. R20/21- Harmful by inhalation and in contact with skin. R65- Harmful: may cause lung damage if swallowed. R37- Irritating to respiratory system. R38- Irritating to skin. R43- May cause sensitisation by skin contact. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

Date of issue : 4/9/2007.

Indicates information that has changed from previously issued version.

Notice to reader

FOR PROFESSIONAL USE ONLY

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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