

Safety Data Sheet**OR3100 321 HS Undercoat Epoxy Primer Converter****Version No. 3 Date Last Revised 20/02/12**

Conforms to the requirements of Regulation (EC) No.1907/2006 (REACH), Annex II and Regulation (EC) No.1272/2008

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier** 321 HS Undercoat Epoxy Primer Converter

Product Code OR3100

Registration Number

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.

For professional use only.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet**Manufacturer** Awlgrip Europe
Bannerlaan 54
B-2280 Grobbendonk Belgium**Telephone No.** +32 14 257770**Fax No.** +32 14 230880**1.4. Emergency telephone number****Manufacturer** +44 (0)191 469 6111 24hr**Official Advisory Body Telephone No.:**
Advice for Doctors and Hospitals

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Email sdsfellinguk@akzonobel.com**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3;H226	Flammable liquid and vapour.
Acute Tox. 4;H312	Harmful in contact with skin.
Acute Tox. 4;H332	Harmful if inhaled.
Skin Corr. 1;H314	Causes severe skin burns and eye damage.
Eye Dam. 1;H318	Causes serious eye damage.
Skin Sens. 1;H317	May cause an allergic skin reaction.
STOT SE 3;H335	May cause respiratory irritation.

Classification according to 67/548/EEC or 1999/45/EC.

C Corrosive.

R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R37	Irritating to respiratory system.
R43	May cause sensitisation by skin contact.

2.2. Label elements

Using the Toxicity Data listed in section 11 & 12 the product is labelled as follows.

According to Regulation (EC) No 1272/2008



Danger.

Contains: Xylene, M-xylolenediamine,
H226 Flammable liquid and vapour.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

p260 Do not breathe mist / vapours / spray.

p280 Wear protective gloves / eye protection / face protection.

P301+330+331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

P310 Immediately call a POISON CENTER or doctor / physician.

P403+233 Store in a well ventilated place. Keep container tightly closed.

2.3. Other hazards

This product contains no PBT/vPvB chemicals.

SECTION 3: Composition/information on ingredients

If the product contains substances that present a health hazard within the meaning of the Dangerous Substances Directive 67/548/EC, or have occupational exposure limits detailed in EH40, these substances are listed below.

Ingredient/Chemical Designations	Weight %	67/548/EEC Classification	EC No. 1272/2008 Classification	Notes
Benzyl alcohol CAS Number: 0000100-51-6 EC No. 202-859-9 Index No.: 603-057-00-5 REACH Reg. No.: 01-2119492630-38-xxxx	10 - < 25	Xn;R20/22	Acute Tox. 4;H332 Acute Tox. 4;H302	[1]
Xylene CAS Number: 0001330-20-7	10 - < 25	R10 Xn;R20/21 Xi;R38	Flam. Liq. 3;H226 Acute Tox. 4;H332	C [1][2]

EC No. 215-535-7 Index No.: 601-022-00-9 REACH Reg. No.:			Acute Tox. 4;H312 Skin Irrit. 2;H315	
Butan-1-ol CAS Number: 0000071-36-3 EC No. 200-751-6 Index No.: 603-004-00-6 REACH Reg. No.: 01-2119484630-38-xxxx	10 - < 25	R10 Xn;R22 Xi;R37/38-41 R67	Flam. Liq. 3;H226 Acute Tox. 4;H302 STOT SE 3;H335 Skin Irrit. 2;H315 Eye Dam. 1;H318 STOT SE 3;H336	[1][2]
M-xylolenediamine CAS Number: 0001477-55-0 EC No. 216-032-5 Index No.: REACH Reg. No.:	2.5 - < 10	Xn;R20/22 C;R35 Xi;R43 N;R52/53	Acute Tox. 4;H302 Acute Tox. 3;H331 Skin Corr. 1;H314 Skin Sens. 1;H317 Aquatic Chronic 3;H412	[1][2]
Ethylbenzene CAS Number: 0000100-41-4 EC No. 202-849-4 Index No.: 601-023-00-4 REACH Reg. No.:	2.5 - < 10	F;R11 Xn;R20	Flam. Liq. 2;H225 Acute Tox. 4;H332	[1][2]
Toluene CAS Number: 0000108-88-3 EC No. 203-625-9 Index No.: 601-021-00-3 REACH Reg. No.:	0 - < 1	F;R11 Repr. Cat. 3;R63 Xn;R48/20-65 Xi;R38 R67	Flam. Liq. 2;H225 Repr. 2;H361d Asp. Tox. 1;H304 STOT RE 2;H373 Skin Irrit. 2;H315 STOT SE 3;H336	[1][2]

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

SECTION 4: First aid measures

4.1. Description of 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 patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.

Skin

Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognised skin cleanser. Do NOT use solvents or thinners.

Eye

Irrigate copiously with clean fresh water for at least 10 minutes, holding the eyelids apart and seek medical attention.

Ingestion

If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

No data available

4.3. Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO². powder, water spray.

Do not use; water jet.

5.2. Special hazards arising from the substance or mixture

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

5.3. Advice for fire-fighters

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapour levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions

Do not allow spills to enter drains or watercourses.

6.3. Methods and material for containment and cleaning up

Ventilate the area and avoid breathing vapours. Take the personal protective measures listed in section 8.

Contain and absorb spillage with non-combustible materials e.g. sand, earth, vermiculite. Place in closed containers outside buildings and dispose of according to the Waste Regulations. (See section 13).

Clean, preferably with a detergent. Do not use solvents.

Do not allow spills to enter drains or watercourses.

If drains, sewers, streams or lakes are contaminated, inform the local water company immediately. In the case of contamination of rivers, streams or lakes the Environmental Protection Agency should also be informed.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling

This coating contains solvents. Solvent vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air. Areas of storage, preparation and application should be ventilated to prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentrations higher than the occupational exposure limits.

In Storage

Handle containers carefully to prevent damage and spillage.

Naked flames and smoking should not be permitted in storage areas. It is recommended that fork lift trucks and electrical equipment are protected to the appropriate standard.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

Avoid skin and eye contact. Avoid inhalation of vapours and spray mists. Observe label precautions. Use personal protection as shown in section 8.

Smoking, eating and drinking should be prohibited in all preparation and application areas.

Never use pressure to empty a container; containers are not pressure vessels.

Store in a well ventilated, dry place away from sources of heat and direct sunlight.

Store on concrete or other impervious floor, preferably with bunding to contain any spillage. Do not stack more than 3 pallets high.

Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in the original container or one of the same material.

Prevent unauthorised access.

7.3. Specific end use(s)

There are no exposure scenarios, see details in section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The following workplace exposure limits have been established by the Health and Safety Executive as published in EH40.

Material	Short term (15 min. ave)		Long term (8hr TWA)		Comments
	ppm	mg/m ³	ppm	mg/m ³	
Butan-1-ol	50	154	-	-	+
Ethylbenzene	125	552	100	441	+
Toluene	150	574	50	191	+
Xylene	100	441	50	220	+

For Key to entries in 'Comments' column see Section 16

DNEL/PNEC values

No Data Available

8.2. Exposure controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapour below occupational exposure limits suitable respiratory protection must be worn.

Eye/face protection

Wear safety eyewear, e.g. safety spectacles, goggles or visors to protect against the splash of liquids. Eyewear should meet the requirements of standard EN 166.

Skin protection

For prolonged or repeated contact use protective gloves. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. Skin should be washed after contact.

Use chemical resistant gloves classified under Standard EN 374: Protective gloves against chemicals and micro-organisms. Recommended gloves: Viton® or Nitrile
Breakthrough Time: 480 min

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 2 or higher (breakthrough time greater than 30 minutes according to EN 374) is recommended.

NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Other
Overalls which cover the body, arms and legs should be worn. Skin should not be exposed. Barrier creams may help to protect areas which are difficult to cover such as the face and neck. They should however not be applied once exposure has occurred. Petroleum jelly based types such as Vaseline should not be used. All parts of the body should be washed after contact.

Respiratory protection
If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators. For maximum protection when spraying this product it is recommended that a multi layer combination type filter, such as ABEK1, is used. In confined spaces use compressed air or fresh air respiratory equipment.

Thermal hazards
No Data Available

SECTION 9: Physical and chemical properties

Appearance	Colourless Liquid
Odour	Smell of Amine
Odour threshold	Not Measured
pH	Not Measured
Melting point / freezing point (°C)	Not Measured
Initial boiling point and boiling range (°C)	110
Flash point (°C)	26
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapour pressure (Pa)	Not Measured
Vapour density	Heavier than air.
Relative density	0.96
Solubility(ies)	Immiscible
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature (°C)	Not Measured
Decomposition temperature (°C)	Not Measured
Viscosity (cSt)	93

9.2. Other information
No further information

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Stable under recommended storage and handling conditions (see section 7). When exposed to high temperatures may produce hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke.

Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid possible exothermic reactions.

10.3. Possibility of hazardous reactions

May react exothermically with: oxidising agents, strong alkalis, strong acids.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Keep away from the following materials: oxidising agents, strong alkalis, strong acids.

10.6. Hazardous decomposition products

Fire will produce dense black smoke. Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Avoid exposure and use breathing apparatus as appropriate.

SECTION 11: Toxicological information

Acute toxicity

Exposure to solvent vapour concentrations from the component solvents in excess of the stated occupational exposure limits 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 include headache, nausea, 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 dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Amine based materials may cause skin irritation and sensitisation.

The preparation has been assessed using the Acute Toxicity Data listed below, and classified for toxicological hazards accordingly. See section 2 for details.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapour LD50, mg/L/4hr	Inhalation Dust/Mist LD50, mg/L/4hr
Benzyl alcohol - (100-51-6)	1,230.00, Rat	2,000.00, Rabbit	4.178, Rat	Not Available
Butan-1-ol - (71-36-3)	2,292.00, Rat	3,430.00, Rabbit	Not Available	Not Available
Ethylbenzene - (100-41-4)	3,500.00, Rat	15,433.00, Rabbit	17.20, Rat	Not Available
M-xylylenediamine - (1477-55-0)	930.00, Rat	2,000.00, Rabbit	Not Available	Not Available
Toluene - (108-88-3)	636.00, Rat	8,400.00, Rabbit	Not Available	Not Available

Xylene - (1330-20-7)	4,299.00, Rat	1,548.00, Rabbit	20.00, Rat	Not Available
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Classification	Category	Hazard Description
Acute toxicity (oral)	Not Classified	Not Applicable
Acute toxicity (dermal)	4	Harmful in contact with skin.
Acute toxicity (inhalation)	4	Harmful if inhaled.
Skin corrosion/irritation	1	Causes severe skin burns and eye damage.
Serious eye damage/irritation	1	Causes serious eye damage.
Respiratory sensitization	Not Classified	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	Not Classified	Not Applicable
Carcinogenicity	Not Classified	Not Applicable
Reproductive toxicity	Not Classified	Not Applicable
STOT-single exposure	3	May cause respiratory irritation.
STOT-repeated exposure	Not Classified	Not Applicable
Aspiration hazard	Not Classified	Not Applicable

SECTION 12: Ecological information

12.1. Toxicity

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, but contains substance(s) dangerous for the environment. See section 3 for details

There are no data available on the product itself.

The product should not be allowed to enter drains or water courses.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Benzyl alcohol - (100-51-6)	10.00, <i>Lepomis macrochirus</i>	55.00, <i>Daphnia magna</i>	700.00 (72 hr), Algae
Xylene - (1330-20-7)	3.30, <i>Oncorhynchus mykiss</i>	8.50, <i>Palaemonetes pugio</i>	100.00 (72 hr), Chlorococcales
Butan-1-ol - (71-36-3)	1,376.00, <i>Pimephales promelas</i>	1,328.00, <i>Daphnia magna</i>	500.00 (96 hr), <i>Scenedesmus subspicatus</i>
M-xylolenediamine - (1477-55-0)	100.00, <i>Oncorhynchus mykiss</i>	16.00, <i>Daphnia magna</i>	Not Available
Ethylbenzene - (100-41-4)	4.20, <i>Oncorhynchus mykiss</i>	2.93, <i>Daphnia magna</i>	3.60 (96 hr), <i>Pseudokirchneriella subcapitata</i>
Toluene - (108-88-3)	5.80, <i>Oncorhynchus mykiss</i>	19.60, <i>Daphnia magna</i>	Not Available

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Do not allow into drains or water courses. Wastes and emptied containers should be disposed of in accordance with regulations made under the Control of Pollution Act and the Environmental Protection Act.

Using information provided in this data sheet advice should be obtained from the Waste Regulation Authority, whether the special waste regulations apply.

The European Waste Catalogue Classification of this product, when disposed of as waste is 08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances. If mixed with other wastes this code may no longer apply and the appropriate code should be assigned. For further information contact your local waste authority.

SECTION 14: Transport information

14.1. UN number 3469

14.2. UN proper shipping name PAINT, FLAMMABLE, CORROSIVE

14.3. Transport hazard class(es)

ADR/RID/ADN UN3469 PAINT, FLAMMABLE, CORROSIVE, 3 (8), III

IMDG class/div 3 Sub Class 8
Segregation Group No segregation group appropriate

EmS F-E,S-C

ICAO/IATA Air class 3 Sub Class 8

14.4. Packing group III

14.5. Environmental hazards

ADR/RID/ADN Environmentally Hazardous: No

IMDG Marine Pollutant: No

14.6. Special precautions for user
No further information

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
Not Applicable

SECTION 15: Regulatory information

EU Legislation

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 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.

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL 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

National Legislation

UKSI 2009 No. 716 CHEMICALS (HAZARD INFORMATION AND PACKAGING FOR SUPPLY) REGULATIONS 2009.

SECTION 16: Other information

16.1. Classification of the substance or mixture

Classification according to 67/548/EEC or 1999/45/EC.

C	Corrosive.
R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R37	Irritating to respiratory system.
R43	May cause sensitisation by skin contact.

16.2. Label elements

According to 1999/45/EC



Corrosive

Contains: Xylene, M-xylolenediamine,

R10 Flammable.

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R34 Causes burns.

R37 Irritating to respiratory system.

R43 May cause sensitisation by skin contact.

S23 Do not breathe vapour/spray.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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.

P. Phrases;

IMPORTANT NOTE: the information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates.

Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended

in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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The information in this Health & Safety Data Sheet is required pursuant to EC Regulation 1907(2006) and the Chemicals (Hazard Information & Packaging for Supply) Regulations 2009.

Key to 'Comments' column in Section 8.

- (+) There is a risk of absorption through unbroken skin.
- (C) Capable of causing cancer and/or heritable genetic damage.
- (R) Suppliers recommended limit.
- (S) Capable of causing occupational asthma.

The full text of the R, H & EUH phrases appearing in section 3 is:

H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H412 Harmful to aquatic life with long lasting effects.

R10 Flammable.

R11 Highly flammable.

R20 Harmful by inhalation.

R20/21 Harmful by inhalation and in contact with skin.

R20/22 Harmful by inhalation and if swallowed.

R22 Harmful if swallowed.

R35 Causes severe burns.

R37/38 Irritating to respiratory system and skin.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitisation by skin contact.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R67 Vapours may cause drowsiness and dizziness.

The following sections have changed since the previous revision.

End of document



Your attention is drawn to the Product Datasheet and the package labelling, which with this Safety Data Sheet comprise an integral information system about this product. The information contained in this sheet is liable to modification from time to time in the light of our policy of continuous product development and of changes in legislation. Awlgrip® is a trademark of Akzo Nobel.