

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

### Product information

Trade name : XD 4444 HARDENER

Use : Hardener for adhesive systems

Company : Huntsman Advanced Materials (Europe)BVBA  
Everslaan 45  
3078 Everberg / Belgium

Telephone : +41619661599  
Telefax : +41619661589  
Emergency telephone number : +32 35 751 234 (in France ORFILA : +33(0)145425959)

For further Product EHS related questions concerning this document or its contents, please contact:  
E-Mail: [global\\_product\\_ehs\\_admat@huntsman.com](mailto:global_product_ehs_admat@huntsman.com)

## 2. HAZARDS IDENTIFICATION

May cause sensitization by skin contact.  
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Formulated polyamine preparation

### Hazardous components

Chemical Name	CAS-No.	Symbol(s)	R-phrase(s)	Concentration [%]
Terphenyl, hydrogenated EC-No.: 262-967-7	61788-32-7		R53	5.00 - 10.00
2,4,6-tris(dimethylaminomethyl)phenol EC-No.: 202-013-9	90-72-2	Xn	R22 R36/38	2.00 - 6.00
triethylene glycol dimercaptan EC-No.: 239-044-2	14970-87-7	Xn	R20/22	2.00 - 6.00
N(3-dimethylaminopropyl)-1,3-propylenediamine EC-No.: 234-148-4	10563-29-8	C	R21/22 R34 R43	1.00 - 3.00
terphenyl EC-No.: 247-477-3	26140-60-3	N	R50/53	0.50 - 1.00

## 4. FIRST AID MEASURES

Inhalation : Move to fresh air.  
Call a physician immediately.

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

- Eye contact : Rinse immediately with plenty of water for at least 15 minutes.  
If eye irritation persists, consult a specialist.
- Skin contact : Wash off immediately with soap and plenty of water.  
If skin irritation persists, call a physician.
- Ingestion : Do not induce vomiting.  
Immediately give plenty of water (if possible charcoal slurry).  
Obtain medical attention.

**5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Water spray.  
Dry powder.  
Carbon dioxide (CO<sub>2</sub>).  
Foam.
- Extinguishing media which must not be used for safety reasons : High volume water jet.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.
- Further information : Burning produces obnoxious and toxic fumes.  
Carbon oxides.  
Nitrogen oxides.  
Sulphur oxides.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions : Keep away from sources of ignition - No smoking.  
Do not breathe vapours/dust.  
Avoid contact with skin, eyes and clothing.
- Environmental precautions : Do not flush into surface water.  
Do not contaminate surface water.  
Should not be released into the environment.
- Methods for cleaning up : Soak up with inert absorbent material and dispose of as hazardous waste.

**7. HANDLING AND STORAGE**

**Handling**

- Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.  
Handle and open container with care.

**Storage**

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

Further information on storage conditions : Keep away from food, drink and animal feeding stuffs.  
Keep container tightly closed.  
Keep at temperatures between 2 and 40 °C.

Storage hazard class : Storage class 12, Liquids, not dangerous  
Huntsman Advanced Materials

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
Terphenyl, hydrogenated	61788-32-7	4.8 mg/m <sup>3</sup>		GB-OES 15M
terphenyl	26140-60-3	4.8 mg/m <sup>3</sup>		GB-OES 15M

### Engineering measures

No special precautions required.

### Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.  
Filter type AX-P2 (organic vapours, particles)

Eye protection : Tightly fitting safety goggles.

Hand protection : Material of gloves for long term application (BTT>480 min):  
Butyl rubber  
Ethyl Vinyl Alcohol Laminate (EVAL)  
Material of gloves for short term/splash application (10 min<BTT<480 min):  
Nitrile rubber  
Use gloves approved to relevant standards e.g. EN 374 (Europe), F739 (US).  
Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material and dexterity. Always seek advice from glove suppliers.  
Additional information can be found for instance at [www.gisbau.de](http://www.gisbau.de)

Skin and body protection : long sleeved clothing

Hygiene measures : Keep away from food, drink and animal feeding stuffs.  
Wash hands before breaks and immediately after handling the product.

Protective measures : Avoid contact with skin, eyes and clothing.  
Keep away from sources of ignition - No smoking.

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Colour	: light yellow
Odour	: amine-like
Boiling point	: > 200 °C
Thermal decomposition	: > 200 °C
Flash point	: 125 °C Method: DIN 51758 (Pensky-Martens Closed Cup)
Vapour pressure	: < 10 Pa at 20 °C
Density	: 1.15 g/cm <sup>3</sup> at 25 °C
Water solubility	: at 20 °C Note: practically insoluble
Miscibility with water	: immiscible at 20 °C
Viscosity, dynamic	: 65 Pa.s at 25 °C

## 10. STABILITY AND REACTIVITY

Conditions to avoid	: Note: Take necessary action to avoid static electricity discharge.
Materials to avoid	: Strong acids and strong bases. Strong oxidizing agents.
Hazardous decomposition products	: Carbon oxides. Sulphur oxides. nitrogen oxides (NO <sub>x</sub> ) Burning produces obnoxious and toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 rat Dose: 2,300 mg/kg
Eye irritation	: No eye irritation rabbit
Skin irritation	: No skin irritation

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

Sensitization : rabbit  
dermal  
: Causes sensitization.  
guinea pig  
dermal

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

Biodegradability : Result: Not readily biodegradable.

### Ecotoxicity effects

### Further information on ecology

Additional ecological information : Avoid subsoil penetration.  
Prevent product from entering drains.  
Do not contaminate surface water.

## 13. DISPOSAL CONSIDERATIONS

Product : Waste Key Number: 070204  
Must be incinerated, when in compliance with local regulations.

Container : Empty containers can be landfilled after cleaning, when in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

## 14. TRANSPORT INFORMATION

### Land transport

#### ADR:

Regulation: Not dangerous goods

#### RID:

Regulation: Not dangerous goods

### Sea transport

#### IMDG:

Regulation: Not dangerous goods

### Air transport

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

*IATA-DGR:*

Regulation: Not dangerous goods

## 15. REGULATORY INFORMATION

### Labelling according to EEC Directive

Labelling required

Symbol(s):	: Xi	Irritant
R-phrase(s)	: R43 R52/53	May cause sensitization by skin contact. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	: S26  S36/37/39	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection.
Hazardous components which must be listed on the label	: N(3-dimethylaminopropyl)-1,3-propylenediamine EC-No.: 234-148-4	

### National legislation

### Notification status

: EINECS yes

: TSCA yes

: DSL no

: AICS yes

: KECI (KR) yes

: ENCS (JP) no

: INV (CN) no

**Ident-No: XD 4444 HARDENER**

Version 5  
Revision Date 22.03.2009

Print Date 08.04.2009

: PICCS (PH) no

## 16. OTHER INFORMATION

### List of R-phrases (Section 3)

R20/22	Harmful by inhalation and if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53	May cause long-term adverse effects in the aquatic environment.

The provision of Safety Data Sheets comes under Regulation 6 of CHIP (CHIP is the recognised abbreviation for the Chemicals Hazard Information and Packaging Regulations). This is an addition to the Health and Safety at Work Act 1974. Users of products supplied by Huntsman Advanced Materials should take appropriate measures to ensure working practices are in accordance with the Control of Substances Hazardous to Health Regulations (COSHH).

All information is based on results gained from experience and tests and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside our control. Users should always carry out sufficient tests to establish the suitability of any products for their intended applications. No statements shall be incorporated in any contract unless expressly agreed in writing nor construed as recommending the use of any product in conflict of any patent. All goods are supplied subject to Huntsman Advanced Materials General Conditions of Sale.