

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

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

### Product information

Trade name : ARALDITE AW 146

Use : Resin 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

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

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Formulated bisphenol A/F epoxy resin preparation

### Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases(s)	Concentration [%]
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	Xi, N	R36/38 R43 R51/53	70.00 - 82.00
bisphenol F-epoxy resin	9003-36-5	Xi, N	R36/38 R43 R51/53	5.00 - 10.00
bisphenol A - epoxy resins, number average MW >700 - <1100	25068-38-6	Xi	R43 R36/38	1.00 - 5.00
silicon dioxide, chemically prepared EC-No.: 231-545-4	7631-86-9			1.00 - 5.00

## 4. FIRST AID MEASURES

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

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

- 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 : Immediately give plenty of water (if possible charcoal slurry).  
Do not induce vomiting.  
Obtain medical attention.

## 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray.  
Carbon dioxide (CO<sub>2</sub>).  
Foam.  
Dry powder.
- 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.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Keep away from sources of ignition - No smoking.  
Avoid contact with skin, eyes and clothing.  
Do not breathe vapours/dust.
- Environmental precautions : Prevent product from entering drains.  
Do not contaminate surface water.  
Avoid subsoil penetration.
- 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

- 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.

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

Storage hazard class : Storage class 10, Environmentally hazardous liquids  
Huntsman Advanced  
Materials

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
silicon dioxide, chemically prepared	7631-86-9	6 mg/m <sup>3</sup> 2.4 mg/m <sup>3</sup>		GB-MEL I GB-MEL R

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : viscous

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

Form	: paste
Colour	: natural colour
Odour	: slight
pH	: approx.6 at (20 °C) 1:1 in water
Boiling point	: > 200 °C
Thermal decomposition	: > 200 °C
Flash point	: 210 °C Method: DIN 51758 (Pensky-Martens Closed Cup)
Vapour pressure	: < 0.1 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	: 30 - 50 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. Burning produces obnoxious and toxic fumes.

## 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 rat Dose: > 5,000 mg/kg
Eye irritation	: irritating rabbit
Skin irritation	: irritating rabbit

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

dermal

Sensitization : Causes sensitization.  
guinea pig  
dermal

Further information : Epoxy resins with an average molecular weight of less than  
700 may cause sensitization.

## 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: 070208  
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:

UN-No: 3082  
Class: 9  
Classification code: M6  
Packaging group: III  
Risk No.: 90  
ADR/RID-Labels: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
contains: BISPHENOL A EPOXY RESIN

#### RID:

UN-No: 3082  
Class: 9

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

Packaging group: III  
Risk No.: 90  
ADR/RID-Labels: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
contains: BISPHENOL A EPOXY RESIN

**Sea transport**

*IMDG:*

UN-No: 3082  
Class: 9  
Packaging group: III  
ADR/RID-Labels: 9  
MFAG:  
EmS: F-A S-F  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
contains: (BISPHENOL A EPOXY RESIN)

**Air transport**

*IATA-DGR:*

UN/ID No.: UN 3082  
Class: 9  
Packaging group: III  
Packing instruction (cargo aircraft): 914  
Max. Qty/Pack.: 450.00 L  
( 999.00 = No limit )  
Packing instruction (passenger aircraft): 914  
Max. Qty/Pack.: 450.00 L  
( 999.00 = No limit )  
ADR/RID-Labels: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,  
N.O.S.  
contains: (BISPHENOL A EPOXY RESIN)

**15. REGULATORY INFORMATION**

**Labelling according to EEC Directive**

Labelling required

Symbol(s):	: Xi N	Irritant Dangerous for the environment
R-phrase(s)	: R36/38 R43 R51/53	Irritating to eyes and skin. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

environment.

S-phrases) : S28 After contact with skin, wash immediately  
with plenty of soap and water.  
S36/37/39 Wear suitable protective clothing, gloves  
and eye/face protection.  
S61 Avoid release to the environment. Refer to  
special instructions/safety data sheets.

Exceptional labelling of special preparations : Contains epoxy constituents. See information supplied by the manufacturer.

Hazardous components which must be listed on the label : reaction product: bisphenol A-(epichlorhydrin); epoxy resin  
(number average molecular weight < 700)  
bisphenol F-epoxy resin

**National legislation**

**Notification status**

: EINECS yes

: TSCA yes

: DSL yes

: AICS yes

: KECI (KR) yes

: ENCS (JP) yes

: INV (CN) yes

: PICCS (PH) yes

**16. OTHER INFORMATION**

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

**Ident-No: ARALDITE AW 146**

Version 7  
Revision Date 22.03.2009

Print Date 09.04.2009

R36/38	Irritating to eyes and skin.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, 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.