

**Ident-No: ARALDITE AV 138 M**

Version 5  
Revision Date 02.07.2004

Print Date 13.08.2004

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

### Product information

Trade name : ARALDITE AV 138 M

Use : Resin for adhesive systems

Company : Huntsman Advanced Materials  
(Hong Kong) Ltd  
Suite 2303-2306  
Tower 1, The Gateway  
No. 25 Canton Road  
Kowloon, Hong Kong

Telephone : +85221488800  
Telefax : +85224871428  
Emergency telephone number : (852) 9681 0383 (Local)/ +41 61 966 40 00 (Global)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

### Chemical nature

Formulated bisphenol A/F epoxy resin preparation

### Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrase(s)	Concentration [%]
barium sulphate, natural EC-No.: 231-784-4	7727-43-7			40.00 - 50.00
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	Xi, N	R36/38 R43 R51/53	20.00 - 30.00
bisphenol F-epoxy resin	9003-36-5	Xi, N	R36/38 R43 R51/53	1.00 - 10.00
butanedioldiglycidyl ether EC-No.: 219-371-7	2425-79-8	Xn	R20/21 R36/38 R43 R52/53	1.00 - 5.00

## 3. 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.

## 4. FIRST AID MEASURES

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

Eye contact : Rinse immediately with plenty of water for at least 15 minutes.  
If eye irritation persists, consult a specialist.

Skin contact : Wash off with soap and plenty of water.

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Ingestion : If skin irritation persists, call a physician.  
: 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.

Specific hazards during fire fighting : Burning produces obnoxious and toxic fumes.  
: Carbon oxides.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus and protective suit.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Do not breathe vapours/dust.  
: Avoid contact with skin, eyes and clothing.  
: Ensure adequate ventilation.

Environmental precautions : Do not allow material to contaminate ground water system.

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

## 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.

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

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
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#### Engineering measures

Ensure adequate ventilation, especially in confined areas.

#### Personal protective equipment

- Respiratory protection : No special protective equipment required.
- Eye protection : goggles
- Hand protection : rubber or plastic gloves
- 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : paste
- Colour : beige
- Odour : slight
- Thermal decomposition : > 200 °C
- Flash point : 110 °C  
Method: DIN 51758 (Pensky-Martens Closed Cup)
- Vapour pressure : 0.1 Pa  
at 20 °C
- Density : 1.7 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 : 200 - 700 Pa.s  
at 25 °C

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## 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  
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

### 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 : 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.
- Contaminated packaging : Waste Key Number: 305055

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## 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  
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.: 999.00 L  
( 999.00 = No limit )  
Packing instruction (passenger aircraft): 914  
Max. Qty/Pack.: 999.00 L  
( 999.00 = No limit )  
ADR/RID-Labels: 9  
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

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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 environment.
S-phrase(s)	: S28 S37/39 S61	After contact with skin, wash immediately with plenty of soap and water. Wear suitable gloves and eye/face protection. 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	: bisphenol F-epoxy resin  butanedioldiglycidyl ether EC-No.: 219-371-7 reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	

### National legislation

Water contaminating class : 2 water endangering  
Classified according to annex 4 of the German VwVwS for preparations.

### Notification status

: CH\_BAGT Notification number: 615084

: CH\_GIFTKL Notification number: 4

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: EINECS yes

: TSCA yes

## 16. OTHER INFORMATION

### List of R-phrases (Section 2)

R20/21	Harmful by inhalation and in contact with 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.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.