

**Ident-No: ARALDITE 1644 A**

Version 1  
Revision Date 21.03.2009

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

### Product information

Trade name : ARALDITE 1644 A

Use : Resin for adhesive systems

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

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## 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 epoxy resin preparation

### Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases)	Concentration [%]
reaction product: bisphenol A-(epichlorhydrin); epoxy resin (number average molecular weight < 700)	25068-38-6	Xi, N	R36/38 R43 R51/53	50.00 - 70.00
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether EC-No.: 221-453-2	3101-60-8	Xi	R36/38 R43 R52/53	1.00 - 5.00
butanedioldiglycidyl ether EC-No.: 219-371-7	2425-79-8	Xn	R20/21 R36/38 R43 R52/53	1.00 - 5.00

## 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.

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- 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 (CO2).  
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.
- Storage hazard class : Storage class 10, Environmentally hazardous liquids  
Huntsman Advanced

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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

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 : paste
- Colour : white
- Odour : slight
- Boiling point : > 200 °C

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Thermal decomposition	: > 200 °C
Flash point	: > 200 °C
Vapour pressure	: < 230 Pa at 20 °C
Density	: 0.55 g/cm <sup>3</sup> at 25 °C
Water solubility	: at 20 °C Note: practically insoluble
Miscibility with water	: immiscible at 20 °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: > 2,000 mg/kg
Eye irritation	: irritating rabbit
Skin irritation	: irritating rabbit dermal
Sensitization	: Causes sensitization. guinea pig dermal

## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

Biodegradability	: Result: Not readily biodegradable.
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### Ecotoxicity effects

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**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  
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.

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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 Irritant  
N Dangerous for the environment

R-phrase(s) : 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.

S-phrase(s) : 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)  
p-tert-butylphenyl 1-(2,3-epoxy)propyl ether  
EC-No.: 221-453-2

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butanedioldiglycidyl ether  
EC-No.: 219-371-7

**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)**

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.
R52/53	Harmful 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).

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