

CP0657A v3.2 RS 388-9143

Ident-No: ARALDITE 2024 AVersion 2
Revision Date 14.06.2004Print Date 15.06.2004
RS CHIP3 MSDS Date 01/11/07**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Trade name : ARALDITE 2024 A

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

Telephone : +41619661599
Telefax : +41619661589
Emergency telephone number : +41 61 966 40 00 (in France ORFILA : +33(0)145425959)

Supplied by:
RS Components Ltd,
Birchington Road, Corby, Northants, NN17 9RS.
Tel: (01536) 402888

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**Mixture of acrylates
preparation**Hazardous components**

Chemical Name	CAS-No.	Symbol(s):	R-phrase(s)	Concentration [%]
methyl methacrylate EC-No.: 201-297-1	80-62-6	F, Xi	R11 R37/38 R43	50.00 - 62.00
methacrylic acid EC-No.: 201-204-4	79-41-4	C	R21/22 R35	1.00 - 10.00

3. HAZARDS IDENTIFICATION

Highly flammable.
Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.

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 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.

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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 heat and sources of ignition.
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 8°C.**

- Storage hazard class : Storage class 3, Flammable 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
methyl methacrylate	80-62-6	208 mg/m ³ 50 ppm 416 mg/m ³ 100 ppm		EH40 OES EH40 OES EH40 OES EH40 OES
methacrylic acid	79-41-4	70 mg/m ³ 20 ppm 140 mg/m ³ 40 ppm		EH40 OES EH40 OES EH40 OES EH40 OES

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Eye protection : **Tightly fitting safety 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 : Keep away from sources of ignition - No smoking.
Avoid contact with skin, eyes and clothing.**9. PHYSICAL AND CHEMICAL PROPERTIES**Form : **paste**

Colour : off-white

Odour : pungent

pH : **< 7**
at **50 g/l**

Boiling point : 101 °C

Thermal decomposition : **> 200 °C**Flash point : **10 °C**
Method: **DIN 51755 (Abel-Pensky Closed Cup)**

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Lower explosion limit	: 1.7 %(V)
Upper explosion limit	: 12.5 %(V)
Vapour pressure	: < 3,800 Pa at 20 °C
Density	: 0.96 g/cm ³ at 25 °C
Water solubility	: at 20 °C Note: insoluble

Miscibility with water	: immiscible at 20 °C
Viscosity, dynamic	: 90 - 140 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: > 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**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: 1133
Class: 3
Classification code: F1
Packaging group: II
Risk No.: 33
ADR/RID-Labels: 3
Proper shipping name: ADHESIVES

RID:

UN-No: 1133
Class: 3
Packaging group: II
Risk No.: 33
ADR/RID-Labels: 3
Proper shipping name: ADHESIVES

Sea transport*IMDG:*

UN-No: 1133
Class: 3
Packaging group: II
ADR/RID-Labels: 3
MFAG:
EmS: F-E S-D
Proper shipping name: ADHESIVES

Air transport

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IATA-DGR:

UN/ID No.:	UN 1133
Class:	3
Packaging group:	II
Packing instruction (cargo aircraft):	307
Max. Qty/Pack.:	60.00 L
(999.00 = No limit)	
Packing instruction (passenger aircraft):	305
Max. Qty/Pack.:	5.00 L
(999.00 = No limit)	
ADR/RID-Labels:	3
Proper shipping name:	ADHESIVES

15. REGULATORY INFORMATION**Labelling according to EEC Directive****Labelling required**

Symbol(s):	: F Xi	Highly flammable Irritant
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R-phrase(s)	: R11 R36/37/38 R43	Highly flammable. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
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S-phrase(s)	: S9 S16 S24 S29 S33	Keep container in a well-ventilated place. Keep away from sources of ignition - No smoking. Avoid contact with skin. Do not empty into drains. Take precautionary measures against static discharges.
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Hazardous components which must be listed on the label	: methyl methacrylate EC-No.: 201-297-1
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National legislation**Notification status**

	: EINECS yes
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	: TSCA yes
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||

: AICS yes

16. OTHER INFORMATION

List of R-phrases (Section 2)

R11	Highly flammable.
R21/22	Harmful in contact with skin and if swallowed.
R35	Causes severe burns.
R37/38	Irritating to respiratory system and skin.
R43	May cause sensitization by skin contact.

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.

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Revision Date 14.06.2004Print Date 15.06.2004
RS CHIP3 MSDS Date 01/11/07**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING****Product information**

Trade name : ARALDITE 2024 B

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

Telephone : +41619661599
Telefax : +41619661589
Emergency telephone number : +41 61 966 40 00 (in France ORFILA : +33(0)145425959)

Supplied by:
RS Components Ltd,
Birchington Road, Corby, Northants, NN17 9RS.
Tel: (01536) 402888

2. COMPOSITION/INFORMATION ON INGREDIENTS**Chemical nature**

preparation

Hazardous components

Chemical Name	CAS-No.	Symbol(s):	R-phrases)	Concentration [%]
bisphenol A - epoxy resins, number average MW >700 - <1100	25068-38-6	Xi	R43 R36/38	15.00 - 30.00
dibenzoyl peroxide EC-No.: 202-327-6	94-36-0	E, Xi	R2 R36 R43	15.00 - 30.00
benzyl butyl phthalate EC-No.: 201-622-7	85-68-7			5.00 - 15.00

3. HAZARDS IDENTIFICATION

Irritating to eyes and skin.
May cause sensitization by skin contact.

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 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.

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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.
Keep at temperatures between 2 and 8°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
dibenzoyl peroxide	94-36-0	5 mg/m ³		EH40 OES
benzyl butyl phthalate	85-68-7	5 mg/m ³		EH40 OES

Engineering measures

No special precautions required.

Personal protective equipment

Respiratory protection : In case of insufficient ventilation wear suitable respiratory equipment.

Eye protection : **Tightly fitting safety 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 : Keep away from sources of ignition - No smoking. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIESForm : **paste**Colour : **blue**Odour : **slight**pH : **7**Thermal decomposition : **at 50 g/l
> 200 °C**Flash point : **> 250 °C**
Method: **DIN 51755 (Abel-Pensky Closed Cup)**Density : **1.07 g/cm³
at 25 °C**Water solubility : **at 20 °C**
Note: **insoluble**Miscibility with water : **immiscible**

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|| at 20 °C

Viscosity, dynamic : 40 - 80 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.

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

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.

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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: BENZYL BUTYL PHTHALATE

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: BENZYL BUTYL PHTHALATE

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: (BENZYL BUTYL PHTHALATE)
MARINE POLLUTANT

Air transport*IATA-DGR:*

UN/ID No.: UN 3082
Class: 9
Packaging group: III
Packing instruction (cargo aircraft): 914

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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.
contains:	(BENZYL BUTYL PHTHALATE)

15. REGULATORY INFORMATION**Labelling according to EEC Directive****Labelling required**

Symbol(s):	: Xi	Irritant
R-phrase(s)	: R36/38 R43	Irritating to eyes and skin. May cause sensitization by skin contact.
S-phrase(s)	: S3/7 S15 S28 S36/37/39	Keep container tightly closed in a cool place. Keep away from heat. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection.

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

Hazardous components which must be listed on the label : bisphenol A - epoxy resins, number average MW >700 - <1100
dibenzoyl peroxide
EC-No.: 202-327-6

National legislation**Notification status**

: EINECS yes

: TSCA yes

: AICS yes

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16. OTHER INFORMATION

List of R-phrases (Section 2)

R2	Risk of explosion by shock, friction, fire or other sources of ignition.
R36	Irritating to eyes.
R36/38	Irritating to eyes and skin.
R43	May cause sensitization by skin contact.

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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.