

Ident-No: ARALDITE 2052 RESIN

Version 1
Revision Date 22.03.2009

Print Date 11.05.2009

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

Product information

Trade name : ARALDITE 2052 RESIN

Use : Acrylate for adhesive systems

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

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2. HAZARDS IDENTIFICATION

Highly flammable.
Causes burns.
Irritating to respiratory system.
May cause sensitization by skin contact.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Formulated methyl methacrylate 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	40.00 - 70.00
methacrylic acid EC-No.: 201-204-4	79-41-4	C	R21/22 R35	5.00 - 10.00
silicon dioxide, chemically prepared EC-No.: 231-545-4	7631-86-9			1.00 - 5.00

4. FIRST AID MEASURES

General advice : Take off all contaminated clothing immediately.

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

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes

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- and consult a physician.
- 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.
Call a physician immediately.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Foam.
Dry powder.
Carbon dioxide (CO₂).
- Extinguishing media which must not be used for safety reasons : Water spray.
- 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 : Ensure adequate ventilation.
Keep away from sources of ignition - No smoking.
Use personal protective equipment.
- 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 (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE

Handling

- Advice on safe handling : Ensure adequate ventilation.
Handle and open container with care.
- Advice on protection against fire and explosion : Keep away from sources of ignition - No smoking.
Take precautionary measures against static discharges.

Storage

- Further information on storage conditions : Keep away from food, drink and animal feeding stuffs.
Keep container tightly closed.

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Keep at temperatures between 2 and 8 °C.

Storage hazard class : Storage class 3, Corrosive substances, flammable
Huntsman Advanced
Materials

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Control parameters	Update	Basis
methyl methacrylate	80-62-6	210 mg/m3 420 mg/m3		CH-MAK 8H CH-MAK 15M
methacrylic acid	79-41-4	70 mg/m3		CH-MAK 8H
silicon dioxide, chemically prepared	7631-86-9			

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
- Skin and body protection : Rubber apron
Rubber or plastic boots.
- Hygiene measures : Take off immediately all contaminated clothing.
When using, do not eat, drink or smoke.
Wash hands before breaks and at the end of workday.
- Protective measures : Do not breathe vapours/dust.
Avoid contact with the skin and the eyes.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: viscous
Form	: liquid
Colour	: yellow
Odour	: ester-like
Boiling point	: > 100 °C Method: estimated
Thermal decomposition	: > 200 °C
Flash point	: > 10 °C Method: estimated
Ignition temperature	: 430 °C
Lower explosion limit	: 2.1 %(V) Method: estimated
Upper explosion limit	: 12.5 %(V) Method: estimated
Vapour pressure	: < 3,800 Pa at 20 °C Method: estimated
Density	: approx.0.9 g/cm ³ at 20 °C
Water solubility	: approx.< 16 g/l Method: estimated Note: partly soluble
Miscibility with water	: immiscible at 20 °C
Viscosity, dynamic	: 80 - 90 Pa.s at 23 °C
Relative vapour density	: approx.1 at 20 °C

10. STABILITY AND REACTIVITY

Materials to avoid	: reducing agents heavy metal salts oxidizing agents (strong)
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Hazardous decomposition products : Carbon oxides. Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD50 rat
Dose: > 2,200 mg/kg
Remarks: Information given is based on data on the components and the toxicology of similar products.

Acute inhalation toxicity : LC50 rat
Dose: > 7 mg/l
Remarks: Information given is based on data on the components and the toxicology of similar products.

Acute dermal toxicity : LD50 rabbit
Dose: > 5,000 mg/kg
Remarks: Information given is based on data on the components and the toxicology of similar products.

Eye irritation : Corrosive rabbit

Skin irritation : Corrosive rabbit
Information given is based on data on the components and the toxicology of similar products.

Sensitization : Causes sensitization.
guinea pig
dermal
Information given is based on data on the components and the toxicology of similar products.

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Result: Readily biodegradable, according to appropriate OECD test.
< 94 %
Remarks:
Information given is based on data on the components and the ecotoxicology of similar products.

Ecotoxicity effects

Toxicity to fish : LC50
Species: Rainbow trout
Dose: > 79 mg/l
Exposure time: 96 h
Remarks:
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Toxicity to daphnia : EC50
Species: Daphnia magna Straus 1820
Dose: > 69 mg/l
Exposure time: 48 h
Remarks:
Information given is based on data on the components and the ecotoxicology of similar products.

Toxicity to daphnia : EC50
Species: Daphnia magna Straus 1820
Dose: 49 mg/l
Exposure time: 21 h
Method: OECD 202/2
Remarks:
Information given is based on data on the components and the ecotoxicology of similar products.

Toxicity to algae : EC50
Species: Selenastrum capricornutum
Dose: > 0.59 mg/l
Exposure time: 96 h
Remarks:
Information given is based on data on the components and the ecotoxicology of similar products.

Toxicity to bacteria : EC0
Species: Pseudomonas Putida
Dose: 100 mg/l
Remarks:
Information given is based on data on the components and the ecotoxicology of similar products.

Further information on ecology

Additional ecological information : 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

14. TRANSPORT INFORMATION

Land transport

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ADR:

UN-No: 2924
Class: 3
Classification code: FC
Packaging group: II
Risk No.: 338
ADR/RID-Labels: 3, 8
Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
contains: METHYL METHACRYLATE
contains: METHACRYLIC ACID

RID:

UN-No: 2924
Class: 3
Packaging group: II
Risk No.: 338
ADR/RID-Labels: 3, 8
Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
contains: METHYL METHACRYLATE
contains: METHACRYLIC ACID

Sea transport

IMDG:

UN-No: 2924
Class: 3
Packaging group: II
ADR/RID-Labels: 3, 8
MFAG:
EmS: F-E S-C
Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
contains: (METHYL METHACRYLATE)
contains: (METHACRYLIC ACID)

Air transport

IATA-DGR:

UN/ID No.: UN 2924
Class: 3
Packaging group: II
Packing instruction (cargo aircraft): 307
Max. Qty/Pack.: 5.00 L
(999.00 = No limit)
Packing instruction (passenger aircraft): 305
Max. Qty/Pack.: 1.00 L
(999.00 = No limit)
ADR/RID-Labels: 3, 8
Proper shipping name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
contains: (METHYL METHACRYLATE)
contains: (METHACRYLIC ACID)

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15. REGULATORY INFORMATION

Labelling according to EEC Directive

Labelling required

Symbol(s):	: F C	Highly flammable Corrosive
R-phrases(s)	: R11 R34 R37 R43	Highly flammable. Causes burns. Irritating to respiratory system. May cause sensitization by skin contact.
S-phrases(s)	: S16 S26 S36/37/39 S45	Keep away from sources of ignition. - No smoking. 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. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
Hazardous components which must be listed on the label	: methyl methacrylate EC-No.: 201-297-1 methacrylic acid EC-No.: 201-204-4	

National legislation

Water contaminating class : 1 slightly water endangering
Classified according to annex 4 of the German VwVwS for preparations.

Notification status

: EINECS yes

: TSCA yes

: DSL no

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: AICS no

: KECI (KR) no

: ENCS (JP) no

: INV (CN) yes

: PICCS (PH) no

16. OTHER INFORMATION

List of R-phrases (Section 3)

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.

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.