

Ident-No: AGOMET U4

Version 6
Revision Date 16.08.2007

Print Date 22.08.2007

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

Product information

Trade name : AGOMET U4

Use : Acrylate for adhesive systems

Company : Huntsman Advanced Materials (Europe)BVBA
Everslaan 45
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2. 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
1,1'-(p-tolylimino)dipropan-2-ol EC-No.: 254-075-1	38668-48-3	T	R25 R52/53	0.10 - 1.00

3. HAZARDS IDENTIFICATION

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

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 and consult a physician.

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

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Ingestion : If skin irritation persists, call a physician.
: 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.
Keep at temperatures between 2 and 18°C.

Storage hazard class : Storage class 3, Flammable liquids

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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 ³ 416 mg/m ³		GB-OES 8H GB-OES 15M

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form : liquid
- Colour : green
- Odour : ester-like

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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.1 g/cm ³ at 20 °C
Water solubility	: approx.< 16 g/l Method: estimated Note: partly soluble
Miscibility with water	: immiscible
Viscosity, dynamic	: 43,000 - 53,000 mPa.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)
Hazardous decomposition products	: Carbon oxides. Burning produces obnoxious and toxic fumes.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 rat Dose: > 2,000 mg/kg Remarks: Information given is based on data on the components and the toxicology of similar products.
Acute inhalation toxicity	: LC50 rat Dose: > 20 mg/l

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	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	: Mild eye irritation rabbit
Skin irritation	: irritating 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:
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: > 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

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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 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 : Waste Key Number: 080402
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:

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

Air transport

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
R-phrase(s)	: R37/38 R11 R43	Irritating to respiratory system and skin. Highly flammable. May cause sensitization by skin contact.
S-phrase(s)	: S16 S26 S37/39	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 gloves and eye/face protection.
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

: TSCA yes

: DSL no

: AICS no

: KECI (KR) no

: JEX (JP) yes

16. OTHER INFORMATION

List of R-phrases (Section 2)

R11	Highly flammable.
R25	Toxic if swallowed.
R37/38	Irritating to respiratory system and skin.
R43	May cause sensitization by skin contact.
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).

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.