



**Dow Automotive**

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Revision: 23.01.2003 Replaces the version of: 07.10.2002 Printing date: 24.03.2004  
Betaprime 1707 B

## Safety Data Sheet according to EC-Regulation 91/155/EEC

### 1. Identification of the substance/preparation and of the company/undertaking

#### Identification of the substance or preparation

#### **Betaprime 1707 B**

#### Use of the substance/preparation

Primer/adhesion promoter

#### Company/undertaking identification

Dow Automotive Dow Europe GmbH Zweigniederlassung Freienbach, Wolleraustrasse 15 - 17, CH -8807, Freienbach  
Telephone ++41 (0) 55 416 81 11, Fax ++41 (0) 55 416 82 21

EC importer: see point 16 of this EC safety data sheet

#### Emergency telephone / Office for advice

#### Advisory office in case of poisoning:

Tel.: CH-Zürich (Tox-Zentrum) 0041 / 1 / 251 51 51

#### Telephone number of the company in case of emergencies:

Tel. --

### 2. Composition/information on ingredients

Polyisocyanate

2.1 Chemical name	content %	symbol	R-phrases	CAS	EINECS, ELINCS
4,4'-methylenediphenyl diisocyanate	1 -< 5	Xn/Xi	20-36/37/38-42/43		202-966-0
Butanone	10 - 40	F/Xi	11-36-66-67		201-159-0

For complete wording of the R-phrases, refer to point 16.

### 3. Hazards identification

#### 3.1 To people

See point 11 and 15.

Preparation is classified as hazardous in the sense of directive 1999/45/EC.

Product is highly flammable.

Irritation of the eyes

May cause sensitization by inhalation.

May cause sensitization by skin contact.

Repeated exposure may cause skin dryness or cracking

Vapours may cause drowsiness and dizziness

#### 3.2 To the environment

See point 12.

### 4. First aid measures

#### 4.1 Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

Keep Data Sheet available.

#### 4.2 Eye contact

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

#### 4.3 Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

#### 4.4 Ingestion

Do not induce vomiting.

Call doctor immediately - have Data Sheet available.

#### 4.5 Special resources necessary for first aid

n.g.



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## 5. Fire-fighting measures

### 5.1 Suitable extinguishing media

Foam  
Dry extinguisher  
Large fire:  
Water jet spray

### 5.2 Extinguishing media which must not be used for safety reasons

k.D.v.

### 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In case of fire the following can develop:

Irritating gases  
Oxides of carbon  
Oxides of nitrogen  
Explosive vapour/air mixture  
Dangerous vapours heavier than air.

### 5.4 Special protective equipment for fire-fighters

Protective respirator with independent air supply  
According to size of fire  
Full protection

### 5.5 Further information

Dispose of contaminated extinction water according to official regulations.

## 6. Accidental release measures

Refer to point 13. and for personal protection refer to point 8.

### 6.1 Personal precautions

Remove possible causes of ignition - do not smoke.  
Ensure sufficient supply of air.  
Avoid inhalation, and contact with eyes or skin.  
No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders.  
Caution - risk of slipping.

### 6.2 Environmental measures

Prevent from entering drainage system.  
If leakage occurs, dam up.  
Prevent surface and ground-water infiltration, as well as ground penetration.

### 6.3 Methods for cleaning up

Collect using absorbant material (e.g. Universal binding medium), and dispose of according to point 13.  
Do not close packing drum.

## 7. Handling and storage

### 7.1 Handling

#### Tips for safe handling:

See point 6.1  
Ensure good ventilation.  
Keep away from sources of ignition - Do not smoke.  
Take precautions against electrostatic charges.  
Only use explosion-proof equipment.  
Observe directions on label and instructions for use.  
Only use working methods according to operating instructions.

### 7.2. Storage

#### Requirements for storage rooms and containers:

Store VbF products only in the specially provided installation.  
Storage regulations of the VbF and TRbF, as well as fire protection facilities, separating walls, and water reservoirs must be observed. These measures are dependent on the stored amount.  
Store products only unopened, in original packing.

#### Special storage conditions:

See point 10.2  
Protect against moisture and store closed.  
Store cool



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## 8. Exposure controls/personal protection

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
If this is insufficient to maintain the concentration under the OES, MEL or MAK values, suitable breathing protection should be worn.  
Applies only if maximum permissible exposure values are listed here.

<b>Chemical name</b>	<b>content %</b>	<b>OES, MEL, MAK, TRK</b>	<b>BMGV, BAT</b>
4,4'-methylenediphenyl diisocyanate	1 -< 5	0,02 mg/m <sup>3</sup> (isocyanates, all (as -NCO))	10 µg/g Kreatinin
Butanone	10 - 40	200 ppm (600 mg/m <sup>3</sup> ) (EC)	70 µmol/l

- 8.1 Respiratory protection: If OES-, MEL- or MAK-value is exceeded.  
Gas mask filter A (EN 141)
- 8.2 Hand protection: Solvent resistant protective gloves (EN 374).  
Protective hand cream recommended.
- 8.3 Eye protection: Tight fitting protective goggles with side protection (EN 166).
- 8.4 Skin protection: Solvent resistant protection clothing (EN368/9)

Additional information on hand protection - No tests have been performed.

Selection made for preparations according to the best available knowledge and information on the ingredients.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of preparations the resistance of glove materials cannot be calculated in advance so it has to be tested before use. The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

## 9. Physical and chemical properties

Physical state:	Liquid
Colour:	Colourless , Light yellow , Clear
Odour:	Characteristic
pH-value undiluted:	k.D.v.
Boiling point / range (°C):	k.D.v.
Melting point / range (°C):	k.D.v.
Flash point (°C):	- 9
Minimum limit of explosion:	k.D.v.
Maximum limit of explosion:	k.D.v.
Relative density (g/ml):	0,95 g/cm <sup>3</sup>
Solubility in water:	Insoluble
Viscosity:	15 - 17 sec/4mm DIN

## 10. Stability and reactivity

### 10.1 Conditions to avoid

See point 7

Protect from humidity.

Heating, open flame, ignition sources

### 10.2 Materials to avoid

See point 7

Do not bring into contact with water.

Avoid contact with other chemicals.

Avoid contact with strong acids.

Avoid contact with oxidizing agents.

Alcohol

Amines

### 10.3 Hazardous decomposition products

See point 5.3

CO<sub>2</sub>

Peroxides

## 11. Toxicological information

### 11.1 Acute toxicity and immediate effects



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11.1.1 Ingestion, LD50 rat oral (mg/kg):	k.D.v.
11.1.2 Inhalation, LC50 rat inhal.(mg/l/4h):	k.D.v.
11.1.3 Skin contact, LD50 rat dermal (mg/kg):	k.D.v. , See point 15.
11.1.4 Eye contact:	Irritant

### 11.2 Delayed and chronic effects

11.2.1 Sensitization:	Yes (inhalation and skin contact)
11.2.2 Carcinogenicity:	k.D.v.
11.2.3 Mutagenicity:	k.D.v.
11.2.4 Reproductive toxicity:	k.D.v.
11.2.5 Narcosis:	Possible

### 11.3. Further information

Classification according to calculation procedure.

The following may occur:

Irritation of the respiratory tract

Headaches

Nausea

Product removes fat

In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.

## 12. Ecological information

Water hazard class:	1
Self classification:	Yes (VwVwS)
Persistence and degradability:	k.D.v.
Behaviour in sewage plants:	k.D.v.
Aquatic toxicity:	
Toxicity to fish:	
Leuciscus idus LC50 4600 mg/l *	
Toxicity to daphnia:	
Daphnia magna EC50 7060 mg/l *	
Ecological toxicity:	
Toxicity to bacteria:	
Pseudomonas putida EC0 1150 mg/l *	
* Butanone	

## 13. Disposal considerations

### 13.1. for the material / preparation / residue

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances.

07 02 04 - other organic solvents, washing liquids and mother liquors

Recommendation:

Pay attention to local and national official regulations

E.g. suitable incineration plant.

### 13.2 for contaminated packing material

See point 13.1

Pay attention to local and national official regulations

## 14. Transport information

### General statements

UN-Number: 1139

### Road/Rail-transport (ADR/RID)

Class/packing-group: 3/II

UN 1139 COATING SOLUTION (SPECIAL PROVISION 640D)

Classification code: F1

LQ: 6

### Transport by sea

IMDG-code: 3/II (class/packing-group)

EmS: F-E, S-E

Marine Pollutant: n.a.

COATING SOLUTION



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**Transport by air**

IATA: 3/-/II (class/secondary danger/packing-group)

Coating solution

**Additional information:**

Danger code and packing code on request.

**15. Regulatory information**

**Classification according to Dangerous Product Regulations incl. EC Directives (67/548/EEC and 1999/45/EC)**

Symbols: F/Xn

Indications of danger:

Highly flammable

Harmful

R-phrases:

11 Highly flammable.

36 Irritating to eyes.

42/43 May cause sensitisation by inhalation and skin contact.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

S-phrases:

(2) Keep out of the reach of children.

16 Keep away from sources of ignition - No smoking.

23.f Do not breathe vapour/spray.

24 Avoid contact with skin.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

35 This material and its container must be disposed of in a safe way.

37 Wear suitable gloves.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

51 Use only in well-ventilated areas.

F



Xn



Additions:

Contains isocyanates. See information supplied by the manufacturer.

4,4'-methylenediphenyl diisocyanate

Observe restrictions: Yes

Observe youth employment law (German regulation).

Observe law on protection of expectant mothers (German regulation).

Observe restrictive guidelines 76/769/EEC, 1999/51/EC, 1999/77/EC

VOC-CH 51,3%

VOC-CH 487,1 g/l

VOC 1999/13/EC 68,8%

VOC 1999/13/EC 635,6 g/l

**16. Other information**

These details refer to the product as it is delivered.

Storage class VCI (Germany): 3 A

Revised points: 2

Dow Automotive Dow Europe GmbH Zweigniederderlassung Freienbach, Wolleraustrasse 15-17, CH-8807 Freienbach Tel. +41(0)554168111  
Fax +41(0)554168220

Dow Automotive (Deutschland) GmbH D-35683 Dillenburg Tel. +49(0)277187140 Fax +49(0)2771871470

Dow Automotive (France) S.A., F-60130 Saint Just en Chaussée Tel. +33(0) 344776100 Fax +33(0)344776161

Dow Automotive Dow Italy S.r.l., Via Patrolo 21, I-20151Milano Tel. +39(0)290361166 Fax +39(0)290276698

Dow Automotive (España) S.A. E-28816 Camarma de Esteruelas (Madrid) Tel. +34(9)18866143 Fax +34(9)18857560

Dow Automotive Dow Chemical Company Ltd., St. Georg's Way Bermuda Industrial Estate GB-Nuneaton CV10 7QT Tel. +44(0)2476357200  
Fax +44(0)2476357257

20 Harmful by inhalation.

36/37/38 Irritating to eyes, respiratory system and skin.

42/43 May cause sensitisation by inhalation and skin contact.

11 Highly flammable.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

**Legend:**



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n.a. = not applicable / n.v., k.D.v. = not available / n.g. = not checked / OES = Occupational exposure standard  
MEL = Maximum exposure limit / BMGV = Biological monitoring guidance value / MAK = Maximum concentration for work place (Germany) / TRK = Technical guidance concentration (Germany) / BAT = Biological tolerance for work place (Germany)  
VbF = Regulations for flammable liquids (Germany) / TRbF = Technical regulations for flammable liquids (Germany)  
WGK = water hazard class (Germany) - WGK 3 = very hazardous, WGK 2 = hazardous, WGK 1 = slightly hazardous to water  
VOC-CH=Volatile organic compounds(VOCV - Switzerland)/AOX=Adsorbable organic halogen compounds  
VwVwS = Administrative Order relating to substances hazardous to water (Germany)

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

**Chemical Check GmbH, Beim Staumberge 3, D-32839 Steinheim, Tel.: 01805-CHEMICAL / 01805-243 642, Fax: 05233-941790**

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