



## Material Safety Data Sheet according to the Regulat. 1907/2006/EC(Annex II)

Revision Date: 11.2008

Date: 1. December 2008

### 1. Product details:

#### 1.1 Recommended use:

**Printing ink of the series „UV“**

Customs-tariff-no.: 3215 1900 (multiple colour)

3215 1100 (black)

#### 1.2 Identification of the manufacturer / supplier

B. GRAUEL GmbH

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Product safety:

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### 2. Hazards possibilities

#### Hazard designation:

Xi  Irritant

#### Specific hazards to man and the environment:

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.






52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 3. Composition / information on ingredients

#### Chemical characterisation

Preparation of acrylates, pigments, photoinitiators and additives.

#### Hazardous ingredients:

EINECS-No.	Name	Symb.	Conc.-%
CAS-No.	R-phrases		
222-540-8	pentaerythrittriacrylat	Xi 	10 – 30
3524-68-3	36/38-43		
	polyol acrylate	Xi 	1 – 3
	36		
	phenyl-keton	Xn  , N 	3 – 5
	22-51/53		
	urethanacrylat oligomer	Xi 	10 – 30
	36		

#### Additional information:

Meanings of R-phrases see under chapt.16.



## 4. First aid measures

### General information

Remove contaminated clothing immediately and dispose of safely.

**After skin contact:** Wash off immediately with soap and water.

**After eye contact:** In case of contact with the eyes rinse thoroughly with plenty of water or with an eye-cleaning solution. In case of irritation consult an oculist.

**After ingestion:** Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Summon a doctor immediately.

## 5. Firefighting measures

### Suitable extinguishing media:

Foam

Dry powder

Carbon dioxide

### Extinguishing media that must not be used for safety reasons

Full water jet

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

#### In the event of fire the following can be released:

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), In case of combustion evolution of dangerous gases possible. NOx.

#### Special protective equipment for firefighting

Do not inhale explosion and/or combustion gases. Use self-contained breathing apparatus.

#### Other information:

Cool endangered containers with water spray jet.

## 6. Accidental release measures

### Personal precautions:

Use personal protective clothing.

### Environmental precautions:

Do not discharge into the drains/surface waters/groundwater.

### Methods for cleaning up/taking up:

Take up with absorbent material (eg sand, kieselguhr, universal binder).

Dispose of absorbed material in accordance with the regulations.

## 7. Handling and storage

### Handling

#### Advice on safe handling

Use personal protective clothing.

Open and handle container with care.

Ensure adequate ventilation.

Avoid formation of aerosols.

#### Advice on protection against fire and explosion

No special measures necessary.

#### Storage:

#### Requirements for storage rooms and vessels

Protect from frost.

Protect from heat and direct sunlight.

Keep container tightly closed and dry in a cool, well-ventilated.



## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Additional hints on technical system design.

See chapter 7; no measures exceeding the ones mentioned are necessary.  
Ingredients with occupational exposure limits to be monitored

EINECS-No.	Name	Typ	Value	Unit
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### Personal protective equipment

**Respiratory protection:** Breathing apparatus in the event of aerosol or mist formation.

**Hand protection:**

**Recommendation:** Impermeable safety gloves made of nitrile as per EN 374; penetration time more than 480 min. at a thickness of 0.4 mm.

**Eye protection:** Safety glasses with side protection shield

**General protective measures:** Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin. At work do not eat, drink, smoke or take drugs. Keep away from foodstuffs and beverages. Wash hands before breaks and after work.

## 9. Physical and chemical properties

**Form:** liquid  
**Colour:** varying  
**Odour:** typical

		Value	Unit	Method
<b>Flash point</b>		> 100	°C	DIN 51755
<b>Viscosity:</b>	20 °C	n.b.		
<b>Density:</b>	20 °C	1.00	g/cm <sup>3</sup>	DIN 51757
<b>Lower explosion limit:</b>		n.a.	Vol. %	
<b>Upper explosion limit:</b>		n.a.	Vol. %	
<b>Solubility in water / method</b>		insoluble		
<b>Pourpoint:</b>		n.a.	°C	
<b>Boiling point:</b>		n.a.	°C	
<b>Bulk density:</b>		n.a.	kg/m <sup>3</sup>	
<b>Vapour pressure:</b>	20 °C	n.b.	mbar	
<b>pH value:</b>	20 °C	n.a.		

## 10. Stability and reactivity

### Materials to avoid

Reactions with strong oxidising agents.

Danger of a sudden polymerisation when warmed up or exposed to UV radiation.

### Hazardous decomposition products

No hazardous reactions when stored and handled according to prescribed instructions.

## 11. TOXICOLOGICAL INFORMATION

### General remarks.

No toxicological data are available.

### Experience in practice

May cause sensitization by skin contact.

Irritating to eyes.

Irritating to skin.



**12. ECOLOGICAL INFORMATION**

Do not discharge into the drains/surface waters/groundwater.  
The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for ecotoxicological properties accordingly. See Section 2 and 15 for details.

**13. Disposal considerations**

**Product**

**Waste code**

080312

waste ink containing dangerous substances

The listed waste code numbers, according to the European Waste Catalogue (EWC), are to be understood as a recommendation. A final decision must be made in agreement with the regional waste disposal company.

**Uncleaned packaging**

Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

**14. Transport information**

"Product is not subject to the regulations for dangerous goods".

**15. REGULATORY INFORMATION**

**Labelling in accordance with EC directives**

The product is classified and labelled in accordance with EC directives/GefStoff V

Xi  Irritant

**Contains:**

pentaerythritol triacrylate

**R phrases:**

36/38 Irritating to eyes and skin.  
43 May cause sensitisation by skin contact.  
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S phrases:**

24 Avoid contact with skin.  
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
37 Wear suitable gloves.  
61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**Special provisions concerning the labelling of preparations:**

n.a.

**National regulations**

Water hazard class / source 1  
(VwVwS)

VbF (Germany) : -

Restriction of occupation.

Observe employment restrictions for young people.

Observe employment restrictions for child bearing mothers and nursing mothers.



## 16. Other information

36/38	Irritating to eyes and skin.
43	May cause sensitisation by skin contact.
36	Irritating to eyes.
22	Harmful if swallowed.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The data mentioned in the present safety data sheet correspond to our latest knowledge and experience and may be used to precise safety requirements for the different products. The information given therein is no warranty as to quality.

n.a.: not applicable  
n.b.: not determined