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Safety data sheet

Hardener powder for acrylic and polyester resin

Uniprox Safety data sheet according to 1907/2006 (EG)
Product: Hardener powder for acrylic and polyester resin (MG120)
Date / Revised: 28.12.2010
Document No.: SDB_UP_0009_1e

1. Substance / preparation and company identification

Trade name: Hardener powder for acrylic and polyester resin
Application of the substance / the preparation: Reaction initiator

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2. Hazard identification

Hazards description:

Xi Irritant
O Oxidising

Advice on critical hazards to man and the environment:

The product is labelled due the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 7 May cause fire
R 36 Irritating to eyes
R 43 May cause sensitisation by skin contact

Classification system:

The classification was made according to the latest editions of the EU-lists, and extended by company and literature data.

3. Composition / information on ingredients

Chemical nature: Preparation

Hazardous ingredients:

CAS No.:	94-36-0	Dibenzoyl peroxide	
EINECS:	202-327-6	Index:	617-008-00-0
Pre-reg-no:	05-2116407351-59-0000		
Content (W/W):	40-50%	Hazard symbols:	Xi, E, O
R-phrases:	3, 7, 36, 43		
CAS No.:	84-61-7	Dicyclohexyl phthalate	
EINECS:	201-545-9		
Pre-reg-no:	05-2116407340-62-0000		
Content (W/W):	40-50%		

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients

are mentioned.

4. **First-aid measures**

General information: Take care of personal protection for the first helper.

After inhalation: Supply fresh air and to be sure call for a doctor. In case of unconsciousness lay patient stably in side position for transportation. Take affected persons into fresh air and keep quiet.

After skin contact: Immediately remove contaminated clothing. Immediately wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: If symptoms persist consults doctor.

5. **Fire-fighting measures**

Suitable extinguishing agents: Water spray, dry extinguishing powder, CO₂. Fight larger fires with water spray or alcohol resistant foam.

Special hazards caused by the material, its products of combustion or resulting gases: Under certain fire conditions, traces of other toxic gases cannot be excluded. Hydrocarbons, carbondioxide and – monoxide.

Protective equipment: Do not inhale explosion gases or combustion gases.

Additional information: Cool endangered receptacles with water spray. Self protection first!

6. **Accidental release measures**

Personal precautions: Keep away from ignition sources. In case of further temperature should be cooled with water spray from a safe distance. Take precautionary measures against static discharges. Wear breathing apparatus with filter A during decomposition of materials. Wear protective equipment. Keep unprotected person away.

Environmental precautions: Do not allow to enter sewers / surface or ground water.

Methods for cleaning / collecting: Ensure adequate ventilation. Pick up mechanically, collect in a suitable receptacle and dispose in accordance with government regulations. Large quantities should be diluted with suitable dilution agent to a concentration below 10% before disposal.

Additional information: In case of large spillage the environmental authority should be informed.

7. **Handling and storage**

Handling:

Pay attention to the special requirements of your local authorities for handling with dangerous goods.

Information for safe handling: Keep receptacles tightly sealed. Prevent formation of dust. Store in cool, dry place in tightly closed receptacles. Open and handle respectable with carer. Wear suitable respiratory protective device when decanting larger quantities without extractor facilities. Do not smoke. Avoid contact with skin and eyes. Oxidizing because of releasing oxygene. While using does not eat, drink or smoke. Avoid shock and friction. Before break and at the end of the work hands should be thoroughly washed. Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e.g. heavy-metal compounds and amines). Keep away from heat and direct sunlight. Do not refill residue into storage receptacles. Restrict the quantity stored at the work place. Only use tools made of suitable materials (e.g. polyethylene or stainless steel). Do not generate flames or sparks. Keep product and emptied container away from heat and sources of ignition. The precautionary measures against static discharges.

Information about fire- and explosion protection: Prevent impact and friction. Avoid open flames, sparks, direct sunlight and other sources of ignition. Protect from heat. Protect against electrostatic charges. Use explosion-proof apparatus / fitting and spark-proof tools. Dust can combine with air to form an explosive mixture. Substance / product is oxidizing when dry. Keep ignition sources away. Do not smoke.

Storage:

Pay attention to the special requirements of your local authorities for storing dangerous goods.

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Requirements to be met by storerooms and receptacles: Store in cool location. Store only in the original receptacle. Prevent any seepage into the ground. Use only receptacles specifically permitted for this substance / product.

Information about storage in one common storage facility: Do not store or park organic peroxide together with heavy metal compounds and amines. Store away from foodstuff, drink and feed stuffs.

Further information about storage conditions: Keep container tightly sealed. Store in cold, dry conditions in well sealed receptacles. Protect from heat and direct sunlight. Protect from contamination. Store on a cold place.

Recommended storage temperature (to maintain quality): Max. +30°C

Storage class: 5.2 (VCI Concept)

8. Exposure controls and personal protection

Additional information about design of technical facilities: No further data: see item 7.

Components with workplace control parameters:

CAS-No.:	94-36-0	Dibenzoyl peroxide
WEL (Great Britain): Long-term value:		5 mg/m ³
CAS-No.:	84-61-7	Dicyclohexyl phthalate
WEL (Great Britain): Long-term value:		5 mg/m ³

Additional information: The lists that were valid during the making were used as basis.

Personal protective equipment

General protective and hygienic measures: The usual precautionary measures should be adhered to when handling chemicals. Use skin protection cream for skin protection. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Store protective clothes separate. Avoid close or long term contact with the skin. Do not eat, drink smoke or sniff while working. Avoid contact with the eyes and skin. Be sure to clean skin thoroughly after work and before breaks. Wash hands before breaks and at the end of work. Use skin protection cream for skin protection.

Respiratory protection: Not necessary if room is well-ventilated. Use suitable respiratory protective device in case of insufficient ventilation. Filter P2

Protection of hands: Protective gloves. Only use chemical-protective gloves with CE-labelling of category III. Selection of the glove material on consideration of the penetration times, rates of diffusion and degradation.

Material of gloves: The selection of suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Fluorocarbon rubber (Viton). Butyl rubber, BR, Nitrile rubber, NBR, Neoprene

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles

Body protection: Protective work clothing.

9. Physical and chemical properties

<u>Form:</u>	solid
<u>Colour:</u>	whitish
<u>Odour:</u>	characteristic
<u>Boiling point:</u>	undetermined
<u>Flash point:</u>	not applicable
<u>Decompositions temperature:</u>	> +60°C (SADT)
<u>Self igniting:</u>	Product is not selfigniting
<u>Miscibility with water:</u>	insoluble
<u>Danger of explosion:</u>	Product does not present an explosive hazard.
<u>Density at 20°C:</u>	0,61 g/m ³
<u>Active oxygen:</u>	3.2-3,5 %

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10. Stability and reactivity

Thermal decomposition / conditions to be avoided:

SADT (Self Accelerating Decomposition Temperature) is lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT. No decomposition if used and stored according to specification.

Materials to be avoided: Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e.g. heavy metal compounds and amines).

Dangerous reactions: Self accelerating decomposition at SADT.

Dangerous products of decomposition: Hydrocarbons, carbon dioxide and -monoxide. No hazardous decomposition products if used and stored according to specifications.

Additional information: Emergency procedures will vary depending on conditions. The customer should have an emergency response plan in place.

11. Toxicological information

Acute oral toxicity:

CAS-No.:	94-36-0	Dibenzoyl peroxide
LD50 oral:		> 5000 mg/kg (rat)
LC50/4h inhalative:		>24.3 mg/l (rat)
CAS-No.:	84-61-7	Dicyclohexyl phthalate
LD50 oral:		> 2000 mg/kg (rat)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Low irritating effect

Sensitization: Sensitization possible through skin contact.

Additional information: The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant

Sensitisation: May cause sensitisation by skin contact.

12. Ecological information

Ecotoxicological effect

Aquatic toxicity

CAS-No.:	94-36-0	Dibenzoyl peroxide
EC50	35 mg/l	(bacteria)
EC50 /48h	2.9 mg/l	(daphnia)
LC50/ 96h	2 mg/l	(poecilia reticulata)

Additional ecological information:

General notes: Water hazard class 1 (German regulation) (Self-assessment): slightly hazardous for water. Do not undiluted product or large quantities of it to reach ground water, water course or sewage system.

13. Disposal considerations

Product:

Recommendation: After diluting with suitable inert solid material to 10%, the product must be supplied to a special treatment (e.g. thermal utilization) under observance of all official regulations. Must not be disposed together with domestic garbage. Do not allow product to reach sewage system.

Waste disposal key: Please contact your hazardous waste disposers to assign the right EWC- (European waste catalogue)-number.

Unclean packaging: This material and its container must be disposed of as hazardous waste.

14. Transport information

Land transport ADR (cross-border):

ADR/GGVS: 5.2
UN-Number: 3106
Label: 5.2
Transport category: 2
Tunnel restriction code: D
Description of goods: 3106 ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXID)
RID/GGVE: See ADR

Maritime transport IMDG:

IMDG Class: 5.2
UN-Number: 3106
EMS Number: F-J, S-R
Marine pollutant: No
Proper shipping name: 3106 ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXID)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 5.2
UN/ID Number: 3106
Label: 5.2
Proper shipping name: 3106 ORGANIC PEROXIDE TYPE D, SOLID (DIBENZOYL PEROXID)

15. Regulatory information

Regulations of the European union (Labelling) / National legislation/Regulations:

Directive 1999/45/EEC ('Preparation Directive'): requires labelling

Hazardous component(s) for labelling:

Contains: Dibenzoyl peroxide

Hazard symbol(s):

Xi Irritant
O Oxidising

R-phrase(s)

R 7 May cause fire.
R 36 Irritating to eyes.
R 43 May cause sensitization by skin contact

S-phrase(s)

S 2 Keep out of the reach of children.
S 3/7 Keep container tightly closed in a cool place.
S 14 Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e.g. heavy metal compounds and amines)
S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.
S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection
S 60 This material and its container must be disposed of as hazardous waste.

National regulations

Please note: Take care of the respective local regulations.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

16. Other information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 3:

Hazards description:

Xi Irritant
E Explosive
O Oxidising

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Relevant R-phrases

R	3	Extreme risk of explosion by shock, friction, fire or other sources of ignition.
R	7	May cause fire
R	36	Irritating to eyes
R	43	May cause sensitization by skin contact

This information refers explicit to the indicated product. In opinion of the Uniprox GmbH & Co. KG this information is right and reliable at the time of the generation. Uniprox GmbH & Co. KG don't assume an express or silent warranty concerning to its correctness, reliability or completeness. Everybody who received this information is requested by the Uniprox GmbH & Co. KG to decide about suitability and completeness of this information for his special application.