Safety document, Material safety data sheet QuantiCast, Epoxy hardener

Safety data sheet according to regulation (EC) No 1907/2006

QUANTICAST CHOCKING COMP PT B

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
QUANTICAST CHOCKING COMP PT B

Contains:
Amines, polyethylenepoly-, triethylenetetramine fraction CAS-No. 90640-67-8

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Epoxy Hardener

1.3. Details of the supplier of the safety data sheet
QuantiServ
Stationsweg 6a
4416 PJ, Kruiningen
Netherlands

Phone: +358 50 5622786

epoxy-resins@quantiserv.com

1.4. Emergency telephone number
The QuantiServ information service also provides an around-the-clock telephone service on phone no. +1 866 398 2788 for exceptional cases.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):	
Acute toxicity H302 Harmful if swallowed. Route of Exposure: Oral	Category 4
Acute toxicity H312 Harmful in contact with skin. Route of Exposure: Dermal	Category 4
Skin corrosion H314 Causes severe skin burns and eye damage.	Category 1B
Skin sensitizer H317 May cause an allergic skin reaction.	Category 1
Serious eye damage H318 Causes serious eye damage.	Category 1
Chronic hazards to the aquatic environment H412 Harmful to aquatic life with long lasting effects.	Category 3

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Danger

Hazard statement:
H302+H312 Harmful if swallowed or in contact with skin
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statement: Prevention
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P273 Avoid release to the environment.

Precautionary statement: Response
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

2.3. Other hazards

None if used properly.
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

SECTION 3: Composition/information on ingredients

3.1. Substances

General chemical description:
Part B of a two-part adhesive

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS- No.	EC Number REACH-Reg No.	Content	Classification
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	292-588-2 01-2119487919-13	50- 100 %	Acute Tox. 4; Oral H302 Acute Tox. 4; Dermal H312 Skin Corr. 1B H314 Skin Sens. 1 H317 Eye Dam. 1 H318 Aquatic Chronic 3 H412

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures
Inhalation:
Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

Eye contact:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:
Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed
INGESTION: Nausea, vomiting, diarrhea, abdominal pain.

SKIN: Redness, inflammation. Cause severe burns.

SKIN: Rash, urticaria

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Foam, extinguishing powder, carbon dioxide.
Water spray jet.

Extinguishing media which must not be used for safety reasons:
Water

5.2. Special hazards arising from the substance or mixture
Danger of decomposition if exposed to heat.
Formation of toxic gases is possible during heating or in fires.
Carbon oxides.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:
Dispose of combustion residues and contaminated fire-fighting water in accordance with statutory regulations., In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Avoid contact with skin and eyes.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Remove mechanically.
Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections
See advice in Section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Ensure good ventilation/suction at the workplace.
See advice in Section 8
Do not spray against flames or glowing bodies. Keep away from sources of ignition - no smoking.

Hygiene measures:
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.
Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities
Store in sealed original container.
Store in a cool, well-ventilated place.
Keep away from sources of ignition.
Refer to Technical Data Sheet

7.3. Specific end use(s)
Epoxy Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for Germany

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (Intermittet releases)		0,2 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (freshwater)		0,19 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (marine water)		0,038 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (freshwater)				95,9 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (marine water)				19,2 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	soil				19,2 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sewage treatment plant (STP)		4,25 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	oral				0,18 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	Inhalation	Acute/short term exposure - systemic effects		5380 mg/m3	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	dermal	Long term exposure - systemic effects		0,57 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	Inhalation	Long term exposure - systemic effects		1 mg/m3	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	dermal	Long term exposure - local effects		0,028 mg/cm2	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	dermal	Acute/short term exposure - systemic effects		8 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	Inhalation	Acute/short term exposure - systemic effects		1600 mg/m3	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	oral	Acute/short term exposure - systemic effects		20 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	dermal	Acute/short term exposure - local effects		1 mg/cm2	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	dermal	Long term exposure - systemic effects		0,25 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	Inhalation	Long term exposure - systemic effects		0,29 mg/m3	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	oral	Long term exposure - systemic effects		0,41 mg/kg	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	dermal	Long term exposure - local effects		0,43 mg/cm2	

Biological Exposure Indices:
None

8.2. Exposure controls:
Engineering controls:
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area.
Filter type: A (EN 14387)

Hand protection:
Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed, then the gloves should be replaced.

Eye protection:
Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Skin protection:
Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.
Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid amber
Odor	Amine
Odour threshold	No data available / Not applicable
pH	> 7
Melting point	No data available / Not applicable
Solidification temperature	No data available / Not applicable
Initial boiling point	> 200 °C (> 392 °F)
Flash point	> 110 °C (> 230 °F)
Evaporation rate	No data available / Not applicable
Flammability	No data available / Not applicable
Explosive limits	No data available / Not applicable
Vapour pressure (50 °C (122 °F))	< 700 mbar
Relative vapour density:	No data available / Not applicable
Density	No data available / Not applicable
Bulk density	No data available / Not applicable
Solubility	No data available / Not applicable
Solubility (qualitative)	No data available / Not applicable
Partition coefficient: n-octanol/water	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Decomposition temperature	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information
No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong oxidants.
Reacts with acids.
Reaction with some curing agents may produce an exothermic reaction which in large masses could cause runaway polymerization.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if used according to specifications.
Danger of decomposition if exposed to heat.

10.5. Incompatible materials
See Section reactivity.

10.6. Hazardous decomposition products
Hydrocarbons
At higher temperature ammonia or amine derivatives may be generated.
At higher temperature carbon oxides and nitrogen oxides may be generated.
May produce fumes when heated to decomposition. Fumes may contain carbon monoxide and other toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
Harmful if swallowed.

Dermal toxicity:
Harmful in contact with skin.

Skin irritation:
Causes severe skin burns and eye damage.

Eye irritation:
Corrosive
Avoid eye contact.

Sensitizing:
May cause an allergic skin reaction.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	LD50	1.716 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	LD50	1.465 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)

SECTION 12: Ecological information

General ecological information:
Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:
Toxic to aquatic life with long lasting effects.
Do not empty into drains / surface water / ground water.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	LC50	570 mg/l	Fish	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	EC50	31 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp.Acute Immobilisation Test)
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	EC50	20 mg/l	Algae	72 h	Selenastrum Capricornutum (New name: Pseudokirchnerell subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	EC10	1,9 mg/l	Chronic Daphnia	21 days	Daphnia magna	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)

12.2. Persistence and degradability

Persistence and Biodegradability:
The product is not biodegradable.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8		aerobic	0 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
Cured adhesives are immobile.

Bioaccumulative potential:
No data available.

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temp.	Method
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	-2,65				25 °C	OECD Guideline 107 (Partition Coefficient (noctanol/water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Amines, polyethylenepoly-, Triethylenetetramine fraction 90640-67-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects
No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:
Do not empty into drains / surface water / ground water.
Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
Disposal must be made according to official regulations.
Use packages for recycling only when totally empty.
Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

Recommended cleaning agents:
Water, if necessary, with added cleaning agent.

Waste code
08 04 09 waste adhesives and sealants containing organic solvents and other dangerous substances
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	2735
RID	2735
ADN	2735
IMDG	2735
IATA	2735

14.2. UN proper shipping name

ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)
RID	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)
ADN	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)
IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)
IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (Amines, polyethylenepoly-, triethylenetetramine fraction)

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable

SECTION 15: Regulatory information

15.1. Safety, health, and environmental regulations/legislation specific for the substance or mixture
VOC content (2010/75/EC) < 3 %

15.2. Chemical safety assessment
A chemical safety assessment has not been carried out.

National regulations/information (Germany):
WGK: WGK = 2, water endangering product. Classification according to the mixture rules in German VwVwS regulation annex 4 from 27.July 2005.

Storage class according to TRGS 510: 8B

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Further information:
This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.