

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 27.05.2015

Version number 2

Revision: 27.05.2015

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

- **1.1 Product identifier**
- **Trade name:** 135 Euromix Epoxy Flex (Compound B)
- **Article number:** 49815
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture**
Wood Flooring Adhesive
Epoxy curing agent
Hardening agent/ Curing agent
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
FORBO Eurocol Deutschland GmbH
August-Roebling-Str. 2
D-99091 Erfurt
Tel.: +49 (0)361 73041-0
Fax: +49 (0)361 73041-92
Website: <http://www.forbo-bonding.de>
- **Further information obtainable from:**
Laboratory
Ronny Dorna
Ronny.Dorna@forbo.com
- **1.4 Emergency telephone number:** GGIZ +49-361-730730 (for Germany)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· **Hazard pictograms**· **Signal word** *Danger*· **Hazard-determining components of labelling:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Benzyl alcohol

Reaction product of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene and hydrogen

Phenol, styrenated

· **Hazard statements**

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:**

Safety data sheet available on request.

Restricted to professional users.

· **2.3 Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.

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· Dangerous components:

CAS: 61788-44-1 EINECS: 262-975-0 Reg.nr.: 02-2119629611-43	Phenol, styrenated ⚠ Aquatic Chronic 2, H411; ⚠ Skin Irrit. 2, H315; Skin Sens. 1, H317	25-<30%
CAS: 2855-13-2 EINECS: 220-666-8 Index number: 612-067-00-9	3-aminomethyl-3,5,5-trimethylcyclohexylamine ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	25-<30%
CAS: 100-51-6 EINECS: 202-859-9 Index number: 603-057-00-5	Benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	20-<25%
CAS: 90-72-2 EINECS: 202-013-9 Index number: 603-069-00-0	2,4,6-tris(dimethylaminomethyl)phenol ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-<20%
EC number: 939-489-9	Reaction product of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene and hydrogen ⚠ Skin Corr. 1B, H314; ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319	10-<20%

· Regulation (EC) No 648/2004 on detergents / Labelling for contents

perfumes (BENZYL ALCOHOL)

· Additional information: For the wording of the listed risk phrases refer to section 16.**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Remove contaminated, saturated clothing.

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

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

A person vomiting while laying on their back should be turned onto their side.

Do not induce vomiting; call for medical help immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.**· 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide and carbon dioxide
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid contact with skin and eyes.
Do not breathe gas/fumes/vapour/spray
Prevent formation of aerosols.
- **6.2 Environmental precautions:**
Do not allow to enter drains/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Use only in well ventilated areas.
Avoid contact with skin and eyes.

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- Keep receptacles tightly sealed.
- Ensure good ventilation/exhaustion at the workplace.
- Prevent formation of aerosols.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store only in the original receptacle.
 - Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
 - Store receptacle in a well ventilated area.
 - Protect from frost.
 - Keep container tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
- **Recommended storage temperature:** +10 °C - +25 °C
- **Storage class:** 8 A
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Inhalative	DNEL (worker)	20.1 mg/m ³ (worker)
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100-51-6 Benzyl alcohol

Dermal	DNEL (worker)	9.5 mg/kg bw/day (worker)
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Inhalative	DNEL (worker)	90 mg/m ³ (worker)
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· PNECs

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

PNEC aqua	0.006 mg/l (water)
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100-51-6 Benzyl alcohol

PNEC aqua	0.1 mg/l (water)
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- **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

- The usual precautionary measures are to be adhered to when handling chemicals.
- Remove contaminated, saturated clothing.
- Keep away from foodstuffs, beverages and feed.

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Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

- **Respiratory protection:** *Not necessary if room is well-ventilated.*
- **Recommended filter device for short term use:** *Filter A*
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Butyl rubber, BR

Nitrile rubber, NBR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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:**



Safety glasses

Tightly sealed goggles

- **Body protection:** *Protective work clothing*

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: *Liquid*

Colour: *Yellow*

- **Odour:** *Amine-like*

- **pH-value at 20 °C:** *11-11.5*
Not applicable.

- **Change in condition**

Melting point/Melting range: *Undetermined.*

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Boiling point/Boiling range:	> 200 °C
· Flash point:	100 °C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	> 300 °C >300 °C
· Decomposition temperature:	Undetermined.
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	1.2 Vol % 1,22 Vol.-%
Upper:	13.0 Vol % 13 Vol.-%
· Vapour pressure at 20 °C:	1 hPa <1 hPa
· Density at 20 °C:	1.02 g/cm ³
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Undetermined.
· Viscosity:	
Dynamic at 20 °C:	550 mPas
· Solvent content:	
Organic solvents:	22.0 %
VOC (CE)	22.00 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Nitrogen oxides (NOx)
Carbon monoxide and carbon dioxide

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Smoke

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SECTION 11: Toxicological information· **11.1 Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values relevant for classification:****61788-44-1 Phenol, styrenated**

Oral LD50 >2000 mg/kg (rat)

Dermal LD50 >7940 mg/kg (rabbit)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Oral LD50 1030 mg/kg (rat)

100-51-6 Benzyl alcohol

Oral LD50 1230 mg/kg (rat)

Dermal LD50 2000 mg/kg (rabbit)

90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

Oral LD50 1916 mg/kg (rat)

· **Primary irritant effect:**· **on the skin:** Strong caustic effect on skin and mucous membranes.· **on the eye:** Strong caustic effect.· **Sensitisation:** Sensitisation possible through skin contact.· **Additional toxicological 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:

Harmful

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

SECTION 12: Ecological information· **12.1 Toxicity**· **Aquatic toxicity:**

No test data in accordance with Regulation (EC) No 465/2008 so far.

61788-44-1 Phenol, styrenatedLC50/96h 1-10 mg/l (zebrafish (*Brachydanio rerio*))**2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine**EC50/24h 42 mg/l (*Daphnia magna*)EC50/72h 37 mg/l (*Scenedesmus suspicatus*)LC50/96h 110 mg/l (*Leuciscus idus*)

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100-51-6 Benzyl alcoholEC50/48h 360 mg/l (*Daphnia magna*)LC50/96h 460 mg/l (*Pimephales promelas*)

· **12.2 Persistence and degradability** No further relevant information available.

· **Degree of elimination:**

61788-44-1 Phenol, styrenated

Biodegradability 7 % / 28d (activated sludge)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Biodegradability 8 % / 28d (-) (OECD 301A)

100-51-6 Benzyl alcohol

Biodegradability 92-96 % / 28d (-) (OECD 301C)

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Behaviour in sewage processing plants:**

Type of test	Effective concentration	Method	Assessment
61788-44-1 Phenol, styrenated			
EC50/3h	362 mg/l (activated sludge)	(OECD 209)	
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine			
EC50/3h	10.1 mg/l (activated sludge)	(OECD 303A)	

61788-44-1 Phenol, styrenated

EC50/3h 362 mg/l (activated sludge) (OECD 209)

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

EC50/3h 10.1 mg/l (activated sludge) (OECD 303A)

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish

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08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number	UN2735
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Reaction product of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene and hydrogen), ENVIRONMENTALLY HAZARDOUS
· ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE, Phenol, styrenated), MARINE POLLUTANT
· IMDG	
· IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (ISOPHORONEDIAMINE)
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	8 (C7) Corrosive substances.
· Label	8
· IMDG	
	
· Class	8 Corrosive substances.
· Label	8
· IATA	
	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR, IMDG, IATA	III

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· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Phenol, styrenated
· Marine pollutant:	Yes
· Special marking (ADR):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Corrosive substances.
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalies
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN2735, AMINES, LIQUID, CORROSIVE, N.O.S. (Reaction product of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene and hydrogen), 8, I, ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed. (94/33/EC)
Employment restrictions concerning pregnant and lactating women must be observed. (92/85/EC)
- **VOC (CE) 224.4 g/l**
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

· Department issuing MSDS: Laboratory**· Contact:**

Dr. Amina Chnirheb
Amina.Chnirheb@forbo.com

· Abbreviations and acronyms:

Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3

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