

Material Safety Data Sheet

According to 91/155 EEC

Printing date 04.04.2007

Reviewed on 21.03.2007

1 Identification of the substance/preparation and of the company/undertaking**Product details**Trade name **Eurolan FK 29, Komp. A**

Safety data sheet no.: 49PD10358-a/9

Application of the substance / the preparation Construction chemicals

Manufacturer/Supplier:

maxit France s.a.s
 4 rue de Mulhouse
 Boîte Postale 27
 F-68180 Horbourg-Wihr
 Tel.: ++33(0)3 89 20 10 80
 FAX: ++33(0)3 89 20 10 92

Information in case of emergency:

maxit France s.a.s
 Tel.: ++33(0)3 89 20 10 80

2 Composition/information on ingredients**Chemical characterization****Description:** Reaction resin based on bisphenol-A and F**Dangerous components:**

25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)  Xi,  N; R 36/38-43-51/53	> 50%
28064-14-4	Bisphenole-F-Epichlorhydrine-Resin MG ≤ 700  Xi,  N; R 36/38-43-51/53	25 - 50%
100-51-6	Benzyl alcohol  Xn; R 20/22	10 - 20%
64742-95-6	Solvent naphtha (petroleum), light arom.  Xn,  Xi,  N; R 10-37-51/53-65-66-67	0,1 - 1%

Additional information For the wording of the listed risk phrases refer to section 16.**3 Hazards identification****Hazard description:**

Xi Irritant
 N Dangerous for the environment

Information concerning particular hazards for human and environment:

R 36/38 Irritating to eyes and skin.

R 43 May cause sensitisation by skin contact.

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Contains epoxy constituents. See information supplied by the manufacturer.

Classification system:

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

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Trade name Eurolan FK 29, Komp. A

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4 First aid measures

General information

Immediately remove any clothing soiled by the product.

Remove the victim immediately from the danger area. If the patient is unwell consult a doctor and present this data sheet.

After inhalation

Supply fresh air and to be sure call for a doctor.

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

After skin contact

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor. Rinse liquid should be tempered (20-30°C).

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Information for doctor None

5 Fire fighting measures

Suitable extinguishing agents

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents Water with full jet

Special hazards caused by the substance, its products of combustion or resulting gases:

In case of fire, the following can be released:

Carbon monoxide (CO)

Formation of toxic gases is possible during heating or in case of fire.

Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Measures for environmental protection:

The product must not get into watercourses or into the soil.

Inform respective authorities in case of seepage into water course or sewage system.

In case of seepage into the ground inform responsible authorities.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

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Trade name Eurolan FK 29, Komp. A**Additional information:** See Section 13 for disposal information.

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7 Handling and storage**Handling****Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about fire - and explosion protection: No special measures required.**Storage****Requirements to be met by storerooms and receptacles:**

Store only in unopened original receptacles.

Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

Further information about storage conditions:

Protect from frost.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Recommended storage temperature: 5-30°C.**8 Exposure controls and personal protection****Additional information about design of technical facilities:** No further data; see item 7.**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.

Additional information:

Te applicable TRGS 900 (MAK list) was used as the basis for the preparation and/or revision of this safety data sheet.

Personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Do not eat, drink, smoke or sniff while working.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Use a moisturising skin cream after processing the product.

Avoid contact with the eyes and skin.

Respiratory protection:

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter AX.

Protection of hands:

Protective gloves.

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

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

Material of gloves

Butyl rubber, BR

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Trade name Eurolan FK 29, Komp. A

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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: Tightly sealed goggles**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

Form:	Viscous
Colour:	According to product specification
Odour:	Characteristic

Change in condition**Melting point/Melting range:** Not determined**Boiling point/Boiling range:** Undetermined.**Flash point:** > 100°C (> 212°F) (DIN ISO 2592)**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Density at 20°C (68°F):** 1,159 g/cm³ (DIN 51757)**Bulk density:** Not applicable.**Solubility in / Miscibility with****Water:** Insoluble**pH-value:** Not applicable.**Viscosity:****dynamic at 20°C (68°F):** 531 mPas (DIN 53019)**kinematic:** Not determined.**Solvent separation test:** Not applicable**10 Stability and reactivity****Thermal decomposition / Conditions to be avoided:**

No decomposition if used according to specifications.

Alkali can generate heavy polymerization at temperatures around 200°C.

Dangerous reactions:

May produce violent reactions with bases and numerous organic substances including alcohols and amines

Reacts with strong oxidizing agents

Dangerous decomposition products: No dangerous decomposition products known.

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Trade name Eurolan FK 29, Komp. A

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11 Toxicological information**Acute toxicity:****LD/LC50 values relevant for classification:**

Components	Type	Value	Species
25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)			
Oral	LD50	11400 mg/kg	(rat)
Dermal	LD50	> 2000 mg/kg	(rabbit)
28064-14-4 Bisphenole-F-Epichlorhydrine-Resin MG ≤ 700			
Oral	LD50	23800 mg/kg	(rat)
Dermal	LD50	> 2000 mg/kg	(rabbit)
100-51-6 Benzyl alcohol			
Oral	LD50	1230 mg/kg	(rat)
Dermal	LD50	2000 mg/kg	(rabbit)
Inhalative	LC50/4 h	4178 mg/l	(rat)

Primary irritant effect:**on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through skin contact.**Additional toxicological information:**

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

Irritant

12 Ecological information:**Information about elimination (persistence and degradability):****Other information:** The product is difficultly biodegradable.**Behaviour in environmental systems:****Mobility and bioaccumulation potential:**

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)	
Bioakkumulation	3,5 - 4 log Pow (-)
100-51-6 Benzyl alcohol	
Bioakkumulation	1,1 log Pow (-)

Other information Contains components with potential bioaccumulation.**Ecotoxicological effects:****Acquatic toxicity:**

Type of test	Effective concentration	Method	Assessment
25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)			
EC50/24h	1,1 - 3,6 mg/l	(Daphnia magna (großer Wasserfloh))	
EC50/96h	220 mg/l	(Selenastrum capricornutum (Grünalge))	
LC50/96h	1,5 - 7,7 mg/l	(Oncorhynchus mykiss (rainbow trout))	
100-51-6 Benzyl alcohol			
EC 10	400 mg/l	(pseudomonas putida)	
EC50/24h	400 mg/l	(Daphnia magna (großer Wasserfloh))	
EC50/96h	640 mg/l	(scenedesmus quadricauda (Alge))	

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LC50/48h	645 mg/l (Leuciscus idus (Goldorfe))
LC50/96h	10 mg/l (Lepomis macrochirus (Sonnenbarsch))
	460 mg/l (Pimephales promelas (Elritze))

Remark: The product contains substances which are toxic to fishes and bacteria.**Behaviour in sewage processing plants:****Type of test Effective concentration Method Assessment****100-51-6 Benzyl alcohol**

EC 50 (3h)	79 mg/l (scenedesmus quadricauda (Alge))
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Remark: The product contains substnaces which de-activate activated sludge.**Other information:****100-51-6 Benzyl alcohol**

BSB (5)	1550 mg O2/g (-)
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General notes:

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

The product contains materials that are harmful to the environment.

13 Disposal considerations**Product:****Recommendation**

Curing of the product by mixing with the curing component. Cured epoxy resin products are waste that requires no particular supervision and can as a rule be disposed of as commercial waste that is similar to household rubbish.

European waste catalogue

07 02 08	other still bottoms and reaction residues
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Uncleaned packaging:**Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**

ADR/RID-GGVS/E Class:	9 (M6) Miscellaneous dangerous substances and articles.
Danger code (Kemler):	90
UN-Number:	3082
Packaging group:	III
Hazard label	9

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Description of goods: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 9
UN Number: 3082
Label 9
Packaging group: III
EMS Number: F-A,S-F
Marine pollutant: No
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 9
UN/ID Number: 3082
Label 9
Packaging group: III
Packing instructions Passenger: 914
Packing instructions cargo: 914
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy Resin)

15 Regulatory information**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

Observe the general safety regulations when handling chemicals.

Code letter and hazard designation of product:

Xi Irritant
 N Dangerous for the environment

Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

Bisphenole-F-Epichlorhydrine-Resin MG ≤ 700

Risk phrases:

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

2 Keep out of the reach of children.

23 Do not breathe fumes.

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- 24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

Special labelling of certain preparations:

Contains epoxy constituents. See information supplied by the manufacturer.

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 R-phrases

- 10 Flammable.
20/22 Harmful by inhalation and if swallowed.
36/38 Irritating to eyes and skin.
37 Irritating to respiratory system.
43 May cause sensitisation by skin contact.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.

Department issuing MSDS: Product safety department**Contact:** Mr Gilles Weber, Tel.: ++33(0)3 89 20 10 93*** Data compared to the previous version altered.**

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1 Identification of the substance/preparation and of the company/undertaking**Product details**Trade name **Eurolan FK 29, Komp. B**

Safety data sheet no.: 49PD10358-b/5

Application of the substance / the preparation Construction chemicals

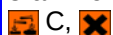
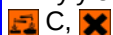
Manufacturer/Supplier:

maxit France s.a.s
 4 rue de Mulhouse
 Boîte Postale 27
 F-68180 Horbourg-Wihr
 Tel.: ++33(0)3 89 20 10 80
 FAX: ++33(0)3 89 20 10 92

Information in case of emergency:

maxit France s.a.s
 Tel.: ++33(0)3 89 20 10 80

2 Composition/information on ingredients**Chemical characterization****Description:** Reaction resin curer based on amines and polyamines.**Dangerous components:**

2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine  C, Xn; R 21/22-34-43-52/53	25 - 50%
100-51-6	Benzyl alcohol  Xn; R 20/22	25 - 50%
1477-55-0	m-Xylylendiamine  C, Xn; R 20/22-34-43-52/53	25 - 50%

Additional information For the wording of the listed risk phrases refer to section 16.**3 Hazards identification****Hazard description:**

C Corrosive

Information concerning particular hazards for human and environment:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

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

Classification system:

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

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Trade name Eurolan FK 29, Komp. B

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4 First aid measures

General information

Immediately remove any clothing soiled by the product.

Remove the victim immediately from the danger area. If the patient is unwell consult a doctor and present this data sheet.

After inhalation Supply fresh air; consult doctor in case of complaints.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor. Rinse liquid should be tempered (20-30°C).

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Information for doctor

Hazards Danger of gastric perforation.

5 Fire fighting measures

Suitable extinguishing agents

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents Water with full jet

Special hazards caused by the substance, its products of combustion or resulting gases:

Nitrogen oxides (NO_x)

Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Measures for environmental protection:

Inform respective authorities in case of seepage into water course or sewage system.

The product must not get into watercourses or into the soil.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

Additional information: See Section 13 for disposal information.

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Trade name Eurolan FK 29, Komp. B

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7 Handling and storage**Handling****Information for safe handling:**

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection: No special measures required.**Storage****Requirements to be met by storerooms and receptacles:**

Store only in unopened original receptacles.

Store in a cool location.

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions).

Store away from oxidizing agents.

Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from humidity and water.

Protect from frost.

Recommended storage temperature: 5-30°C.**8 Exposure controls and personal protection****Additional information about design of technical facilities:** No further data; see item 7.**Ingredients with limit values that require monitoring at the workplace:****Additional information:**

The applicable TRGS 900 (MAK list) was used as the basis for the preparation and/or revision of this safety data sheet.

Personal protective equipment:**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Use a moisturising skin cream after processing the product.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter A/P2.

Protection of hands:

Protective gloves.

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

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

Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

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Trade name Eurolan FK 29, Komp. B

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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: Tightly sealed goggles**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic

Change in condition**Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** Undetermined.**Flash point:** > 100°C (> 212°F) (DIN ISO 2592 0,08 ml/)**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Density at 20°C (68°F):** 1,004 g/cm³ (DIN 51757)**Bulk density:** Not applicable.**Solubility in / Miscibility with Water:**

Partly soluble

pH-value at 20°C (68°F): 11,0 (DIN 19261)**Viscosity:****dynamic at 23°C (73°F):** 20 mPas (DIN 53019)**kinematic:** Not determined.**Solvent separation test:** Not applicable**10 Stability and reactivity****Thermal decomposition / Conditions to be avoided:**

No decomposition if used according to specifications.

Dangerous reactions: Strong exothermic reaction with acids**Dangerous decomposition products:** No dangerous decomposition products known.

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Trade name Eurolan FK 29, Komp. B

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11 Toxicological information**Acute toxicity:****LD/LC50 values relevant for classification:**

Components	Type	Value	Species
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine			
Oral	LD50	1030 mg/kg	(rat)
Dermal	LD50	1840 mg/kg	(rabbit)
100-51-6 Benzyl alcohol			
Oral	LD50	1230 mg/kg	(rat)
Dermal	LD50	2000 mg/kg	(rabbit)
Inhalative	LC50/4 h	4178 mg/l	(rat)
1477-55-0 m-Xylylendiamine			
Oral	LD50	930 mg/kg	(rat)
Dermal	LD50	2000 mg/kg	(rabbit)
Inhalative	LC50/4 h	2,4 mg/l	(rat)

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

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

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

Harmful

Corrosive

12 Ecological information:**Information about elimination (persistence and degradability):****Other information:** The product is difficultly biodegradable.**Behaviour in environmental systems:****Mobility and bioaccumulation potential:**

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
EBAB	0,79 log Pow (-)
100-51-6 Benzyl alcohol	
EBAB	1,1 log Pow (Bioakkumulation)

Ecotoxicological effects:**Acquatic toxicity:**

Type of test	Effective concentration	Method	Assessment
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine			
EC 10/18h	1120 mg/l	(pseudomonas putida)	
EC50/24h	42 mg/l	(Daphnia magna (großer Wasserfloh))	
EC50/72h	37 mg/l	(scenedesmus subspicatus (Alge))	
LC50/48h	185 mg/l	(Leuciscus idus (Goldorfe))	
LC50/96h	110 mg/l	(Brachydanio rerio (Zebrabärbling))	
100-51-6 Benzyl alcohol			
EC 10	400 mg/l	(pseudomonas putida)	

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EC50/24h	400 mg/l (Daphnia magna (großer Wasserfloh))
EC50/96h	640 mg/l (scenedesmus quadricauda (Alge))
LC50/48h	645 mg/l (Leuciscus idus (Goldorfe))
LC50/96h	10 mg/l (Lepomis macrochirus (Sonnenbarsch))
	460 mg/l (Pimephales promelas (Elritze))

1477-55-0 m-Xylylendiamine

EC50/48h	>10-100< mg/l (Daphnia magna (großer Wasserfloh))
EC50/72h	>10-100< mg/l (Alge)
LC50/96h	>100 mg/l (Oncorhynchus mykiss (rainbow trout))

Behaviour in sewage processing plants:**Type of test Effective concentration Method Assessment****100-51-6 Benzyl alcohol**

EC 50 (3h)	79 mg/l (scenedesmus quadricauda (Alge))
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Remark: The product causes a significant pH change. Neutralise before introduction.**Other information:****100-51-6 Benzyl alcohol**

BSB (5)	1550 mg O2/g (-)
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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.

13 Disposal considerations**Product:****Recommendation**

After mixing with the resin component pour a partial amount back into the curing agent barrel, stir well and pour the mass back once more. Cured epoxy resin products are waste that requires no particular supervision and can as a rule be disposed of as commercial waste that is similar to household rubbish.

European waste catalogue

07 02 08	other still bottoms and reaction residues
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Uncleaned packaging:**Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)****ADR/RID-GGVS/E Class:**

8 (C7) Corrosive substances.

Danger code (Kemler):

80

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UN-Number: 2735
Packaging group: II
Hazard label 8
Description of goods: 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylylendiamine, ISOPHORONEDIAMINE)

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 2735
Label 8
Packaging group: II
EMS Number: F-A,S-B
Marine pollutant: No
Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 2735
Label 8
Packaging group: II
Packing instructions Passenger: 808
Packing instructions cargo: 812
Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

15 Regulatory information**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
 Observe the general safety regulations when handling chemicals.

Code letter and hazard designation of product:

C Corrosive

Hazard-determining components of labelling:

3-aminomethyl-3,5,5-trimethylcyclohexylamine
 m-Xylylendiamine
 Benzyl alcohol

Risk phrases:

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
 34 Causes burns.

(Contd. on page 8)

Material Safety Data Sheet

According to 91/155 EEC

Printing date 04.04.2007

Reviewed on 21.03.2007

Trade name Eurolan FK 29, Komp. B

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

Safety phrases:

- 2 Keep out of the reach of children.
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
46 If swallowed, seek medical advice immediately and show this container or label.

National regulations

Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.

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 R-phrases

- 20/22 Harmful by inhalation and if swallowed.
21/22 Harmful in contact with skin and if swallowed.
34 Causes burns.
43 May cause sensitisation by skin contact.
52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Department issuing MSDS: Product safety department

Contact: Mr Gilles Weber, Tel.: ++33(0)3 89 20 10 93

*** Data compared to the previous version altered.**

Material Safety Data Sheet

According to 91/155 EEC

Printing date 04.04.2007

Reviewed on 21.03.2007

1 Identification of the substance/preparation and of the company/undertaking**Product details**Trade name **Eurolan FK 29, Komp. B**

Safety data sheet no.: 49PD10358-b/5

Application of the substance / the preparation Construction chemicals

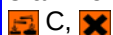
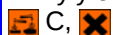
Manufacturer/Supplier:

maxit France s.a.s
 4 rue de Mulhouse
 Boîte Postale 27
 F-68180 Horbourg-Wihr
 Tel.: ++33(0)3 89 20 10 80
 FAX: ++33(0)3 89 20 10 92

Information in case of emergency:

maxit France s.a.s
 Tel.: ++33(0)3 89 20 10 80

2 Composition/information on ingredients**Chemical characterization****Description:** Reaction resin curer based on amines and polyamines.**Dangerous components:**

2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine  C, Xn; R 21/22-34-43-52/53	25 - 50%
100-51-6	Benzyl alcohol  Xn; R 20/22	25 - 50%
1477-55-0	m-Xylylendiamine  C, Xn; R 20/22-34-43-52/53	25 - 50%

Additional information For the wording of the listed risk phrases refer to section 16.**3 Hazards identification****Hazard description:**

C Corrosive

Information concerning particular hazards for human and environment:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

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

Classification system:

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

EU

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Trade name Eurolan FK 29, Komp. B

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4 First aid measures

General information

Immediately remove any clothing soiled by the product.

Remove the victim immediately from the danger area. If the patient is unwell consult a doctor and present this data sheet.

After inhalation Supply fresh air; consult doctor in case of complaints.

After skin contact

Immediately wash with water and soap and rinse thoroughly.

Seek medical treatment.

After eye contact

Rinse opened eye for several minutes under running water. Then consult doctor. Rinse liquid should be tempered (20-30°C).

After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

Information for doctor

Hazards Danger of gastric perforation.

5 Fire fighting measures

Suitable extinguishing agents

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents Water with full jet

Special hazards caused by the substance, its products of combustion or resulting gases:

Nitrogen oxides (NO_x)

Protective equipment:

Wear fully protective suit.

Wear self-contained respiratory protective device.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

Person-related safety precautions:

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Measures for environmental protection:

Inform respective authorities in case of seepage into water course or sewage system.

The product must not get into watercourses or into the soil.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

Additional information: See Section 13 for disposal information.

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Printing date 04.04.2007

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Trade name Eurolan FK 29, Komp. B

(Contd. of page 2)

7 Handling and storage

Handling

Information for safe handling:

Store in cool, dry place in tightly closed receptacles.

Ensure good ventilation/exhaustion at the workplace.

Information about fire - and explosion protection: No special measures required.

Storage

Requirements to be met by storerooms and receptacles:

Store only in unopened original receptacles.

Store in a cool location.

Information about storage in one common storage facility:

Do not store together with alkalis (caustic solutions).

Store away from oxidizing agents.

Store away from foodstuffs.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Protect from humidity and water.

Protect from frost.

Recommended storage temperature: 5-30°C.

8 Exposure controls and personal protection

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

Ingredients with limit values that require monitoring at the workplace:

Additional information:

Te applicable TRGS 900 (MAK list) was used as the basis for the preparation and/or revision of this safety data sheet.

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Use a moisturising skin cream after processing the product.

Avoid contact with the eyes and skin.

Do not eat, drink, smoke or sniff while working.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Short term filter device:

Filter A/P2.

Protection of hands:

Protective gloves.

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

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

Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

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Trade name Eurolan FK 29, Komp. B

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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: Tightly sealed goggles**Body protection:** Protective work clothing.**9 Physical and chemical properties:****General Information**

Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic

Change in condition**Melting point/Melting range:** Undetermined.**Boiling point/Boiling range:** Undetermined.**Flash point:** > 100°C (> 212°F) (DIN ISO 2592 0,08 ml/)**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Density at 20°C (68°F):** 1,004 g/cm³ (DIN 51757)**Bulk density:** Not applicable.**Solubility in / Miscibility with Water:**

Partly soluble

pH-value at 20°C (68°F): 11,0 (DIN 19261)**Viscosity:****dynamic at 23°C (73°F):** 20 mPas (DIN 53019)**kinematic:** Not determined.**Solvent separation test:** Not applicable**10 Stability and reactivity****Thermal decomposition / Conditions to be avoided:**

No decomposition if used according to specifications.

Dangerous reactions: Strong exothermic reaction with acids**Dangerous decomposition products:** No dangerous decomposition products known.

EU

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Printing date 04.04.2007

Reviewed on 21.03.2007

Trade name Eurolan FK 29, Komp. B

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11 Toxicological information**Acute toxicity:****LD/LC50 values relevant for classification:**

Components	Type	Value	Species
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine			
Oral	LD50	1030 mg/kg	(rat)
Dermal	LD50	1840 mg/kg	(rabbit)
100-51-6 Benzyl alcohol			
Oral	LD50	1230 mg/kg	(rat)
Dermal	LD50	2000 mg/kg	(rabbit)
Inhalative	LC50/4 h	4178 mg/l	(rat)
1477-55-0 m-Xylylendiamine			
Oral	LD50	930 mg/kg	(rat)
Dermal	LD50	2000 mg/kg	(rabbit)
Inhalative	LC50/4 h	2,4 mg/l	(rat)

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

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

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

Harmful

Corrosive

12 Ecological information:**Information about elimination (persistence and degradability):****Other information:** The product is difficultly biodegradable.**Behaviour in environmental systems:****Mobility and bioaccumulation potential:**

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
EBAB	0,79 log Pow (-)
100-51-6 Benzyl alcohol	
EBAB	1,1 log Pow (Bioakkumulation)

Ecotoxicological effects:**Acquatic toxicity:**

Type of test	Effective concentration	Method	Assessment
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine			
EC 10/18h	1120 mg/l	(pseudomonas putida)	
EC50/24h	42 mg/l	(Daphnia magna (großer Wasserfloh))	
EC50/72h	37 mg/l	(scenedesmus subspicatus (Alge))	
LC50/48h	185 mg/l	(Leuciscus idus (Goldorfe))	
LC50/96h	110 mg/l	(Brachydanio rerio (Zebrabärbling))	
100-51-6 Benzyl alcohol			
EC 10	400 mg/l	(pseudomonas putida)	

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EC50/24h	400 mg/l (Daphnia magna (großer Wasserfloh))
EC50/96h	640 mg/l (scenedesmus quadricauda (Alge))
LC50/48h	645 mg/l (Leuciscus idus (Goldorfe))
LC50/96h	10 mg/l (Lepomis macrochirus (Sonnenbarsch))
	460 mg/l (Pimephales promelas (Elritze))

1477-55-0 m-Xylylendiamine

EC50/48h	>10-100< mg/l (Daphnia magna (großer Wasserfloh))
EC50/72h	>10-100< mg/l (Alge)
LC50/96h	>100 mg/l (Oncorhynchus mykiss (rainbow trout))

Behaviour in sewage processing plants:**Type of test Effective concentration Method Assessment****100-51-6 Benzyl alcohol**

EC 50 (3h)	79 mg/l (scenedesmus quadricauda (Alge))
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Remark: The product causes a significant pH change. Neutralise before introduction.**Other information:****100-51-6 Benzyl alcohol**

BSB (5)	1550 mg O2/g (-)
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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.

13 Disposal considerations**Product:****Recommendation**

After mixing with the resin component pour a partial amount back into the curing agent barrel, stir well and pour the mass back once more. Cured epoxy resin products are waste that requires no particular supervision and can as a rule be disposed of as commercial waste that is similar to household rubbish.

European waste catalogue

07 02 08	other still bottoms and reaction residues
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Uncleaned packaging:**Recommendation:**

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information**Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)****ADR/RID-GGVS/E Class:**

8 (C7) Corrosive substances.

Danger code (Kemler):

80

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Reviewed on 21.03.2007

Trade name Eurolan FK 29, Komp. B

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UN-Number: 2735
Packaging group: II
Hazard label 8
Description of goods: 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-Xylylendiamine, ISOPHORONEDIAMINE)

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 8
UN Number: 2735
Label 8
Packaging group: II
EMS Number: F-A,S-B
Marine pollutant: No
Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 8
UN/ID Number: 2735
Label 8
Packaging group: II
Packing instructions Passenger: 808
Packing instructions cargo: 812
Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (m-phenylenebis(methylamine), ISOPHORONEDIAMINE)

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 Benzyl alcohol

Risk phrases:

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 34 Causes burns.

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Trade name Eurolan FK 29, Komp. B

(Contd. of page 7)

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

Safety phrases:

- 2 Keep out of the reach of children.
24/25 Avoid contact with skin and eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
28 After contact with skin, wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
46 If swallowed, seek medical advice immediately and show this container or label.

National regulations

Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.

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 R-phrases

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Department issuing MSDS: Product safety department

Contact: Mr Gilles Weber, Tel.: ++33(0)3 89 20 10 93

*** Data compared to the previous version altered.**