



Safety data sheet

1. Substance/preparation and company identification

Trade name:

Zusatzmittel F / Additive F

Application of the substance/ the preparation:

Chemical / polyurethane component

BEIL

Kunststoffproduktions- und Handelsgesellschaft mbH

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2. Hazard identification

Label elements

Globally Harmonized System, EU (GHS)

Pictogram:



GHS07



GHS09



GHS08



GHS05

Signal Word:

Danger

Hazard Statement:

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H373 May cause damage to organs through prolonged or repeated oral exposure.

H400 Very toxic to aquatic life.

Precautionary Statements (Prevention):

P273 Avoid release to the environment.

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

Precautionary Statements (Response):

P305 + P351 + P338 IF IN EYES:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

P391 Collect spillage.



Precautionary Statements (Disposal):

P501 Dispose of contents/container to hazardous or special waste collection point.

According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: ethyleneglycol, Quaternary ammonium compound

According to Directive 67/548/EEC or 1999/45/EC

Directive 1999/45/EC ('Preparation Directive')

Code letter and hazard designation of product:

Xn Harmful

N Dangerous for the environment

R-phrase(s)

R22 Harmful if swallowed.

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

R50 Very toxic to aquatic organisms.

S-phrase(s)

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazard determining component(s) for labelling: ethyleneglycol, Quaternary ammonium compound

Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Acute Tox. 4 (oral)

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

STOT RE 2 (oral)

Aquatic Acute 1

According to Directive 67/548/EEC or 1999/45/EC

Possible Hazards:

Harmful if swallowed.

Irritating to skin.

Risk of serious damage to eyes.

Very toxic to aquatic organisms.

For the classifications not written out in full in this section the full text can be found in section 16.

Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition/information on ingredients

Mixtures

Chemical nature

Preparation based on: quaternary ammonium compound

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008



ethanediol; ethylene glycol

Content (W/W): 10 % - < 25 %

CAS Number: 107-21-1

EC-Number: 203-473-3

REACH registration number: 01-2119456816-28

INDEX-Number: 603-027-00-1

Acute Tox. 4 (oral)

STOT RE (Kidney) 2

H302, H373

Amines, coco alkyldimethyl

Content (W/W): \geq 1 % - < 5 %

CAS Number: 61788-93-0

EC-Number: 263-020-0

Acute Tox. 4 (oral)

Skin Corr./Irrit. 1B

Aquatic Acute 1

H302, H314, H400

Quaternary ammonium compound

Content (W/W): > 70 %

CAS Number: 68308-64-5

EC-Number: 269-662-8

Acute Tox. 4 (oral)

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

Aquatic Acute 1

H302, H315, H318, H400

Hazardous ingredientsaccording to Directive 1999/45/EC

ethanediol; ethylene glycol

Content (W/W): 10 % - < 25 %

CAS Number: 107-21-1

EC-Number: 203-473-3

REACH registration number: 01-2119456816-28

INDEX-Number: 603-027-00-1

Hazard symbol(s): Xn

R-phrase(s): 22

Amines, coco alkyldimethyl

Content (W/W): \geq 1 % - < 5 %

CAS Number: 61788-93-0

EC-Number: 263-020-0

Hazard symbol(s): C, N

R-phrase(s): 22, 34, 50

Quaternary ammonium compound

Content (W/W): > 70 %

CAS Number: 68308-64-5

EC-Number: 269-662-8

Hazard symbol(s): Xn, N

R-phrase(s): 22, 38, 41, 50

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

4. First-aid measures**Description of first aid measures**

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:



After contact with skin, wash immediately with plenty of water. Consult a doctor if skin irritation persists.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Eye irritation, skin irritation

Hazards: Symptoms can appear later.

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

Special hazards arising from the substance or mixture

Carbon dioxide, carbon monoxide, ammonia, anhydrous, sulphur dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

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

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

6. Accidental release measures

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Sources of ignition should be kept well clear. Ensure adequate ventilation.

Environmental precautions

Do not empty into drains. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of contaminated material as prescribed.

Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas.

Protection against fire and explosion:

Keep away from sources of ignition - No smoking.

Conditions for safe storage, including any incompatibilities

Segregate from acids. Segregate from strong oxidizing agents. Segregate from foods and animal feeds.

Further information on storage conditions: Containers should be stored tightly sealed in a dry place.



Keep container in a well-ventilated place. Keep container tightly closed and in a cool place.
Information concerning the compliance to the Packaging (Essential Requirements) Regulations 1998 and their amendments may be obtained from the manufacturer.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure controls and personal protection

Control parameters

Components with workplace control parameters

107-21-1: ethanediol; ethylene glycol

TWA value 52 mg/m³ ; 20 ppm (OEL (EU))

indicative

STEL value 104 mg/m³ ; 40 ppm (OEL (EU))

indicative

Skin Designation (OEL (EU))

The substance can be absorbed through the skin.

TWA value 10 mg/m³ (EH40 (UK)), Particulate

TWA value 52 mg/m³ ; 20 ppm (EH40 (UK)), vapour

STEL value 104 mg/m³ ; 40 ppm (EH40 (UK)), vapour

Skin Designation (EH40 (UK)), Particulate

The substance can be absorbed through the skin.

Skin Designation (EH40 (UK)), vapour

The substance can be absorbed through the skin.

Components with PNEC

107-21-1: ethanediol; ethylene glycol

freshwater: 10 mg/l

marine water: 1 mg/l

intermittent release: 10 mg/l

STP: 199.5 mg/l

sediment (freshwater): 20.9 mg/kg

soil: 1.53 mg/kg

Components with DNEL

107-21-1: ethanediol; ethylene glycol

worker: Long-term exposure- systemic effects, Inhalation: 35 mg/m³

worker: Long-term exposure- systemic effects, dermal: 106 mg/kg

consumer: Long-term exposure- systemic effects, Inhalation: 7 mg/m³

consumer: Long-term exposure- systemic effects, dermal: 53 mg/kg

Exposure controls

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact

(Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to

EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

General safety and hygiene measures

Wearing of closed work clothing is required additionally to the stated personal protection equipment.

Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour. When using, do not eat,



drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and chemical properties

Information on basic physical and chemical properties

Form:	liquid
Colour:	colourless to yellowish
Odour:	faint odour
Odour threshold:	not determined
pH value:	6 – 8 (20 g/l)
solidification temperature:	5 °C
Boiling point:	> 160 °C
Flash point:	> 100 °C (closed cup)
Evaporation rate:	not applicable
Flammability:	does not ignite
Lower explosion limit:	not determined
Information on: ethanediol; ethylene glycol	
Lower explosion limit: 3.2 %(V)	

Information on: ethanediol; ethylene glycol	
Upper explosion limit: 15.3 %(V)	

Ignition temperature:	> 250 °C
Vapour pressure:	< 1 mbar (20 °C)
Density:	0.988 g/cm ³ (20 °C)
Relative vapour density (air):	not applicable
Solubility in water:	soluble
Solubility (qualitative) solvent(s):	polar solvents soluble
Partitioning coefficient n-octanol/water (log Kow):	not applicable

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic:
not determined

Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

10. Stability and reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: No corrosive effect on metal.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

Avoid extreme temperatures.

Incompatible materials

Substances to avoid:

strong oxidizing agents, strong reducing agents, strong bases, acids

Hazardous decomposition products

Gaseous products of degradation can be given off if the product is greatly overheated.



11. Toxicological information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

Experimental/calculated data:

LD50 rat (oral): 800 - 1,200 mg/kg

Irritation

Assessment of irritating effects:

May cause severe damage to the eyes. Skin contact causes irritation.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant.

Serious eye damage/irritation: irreversible damage

Respiratory/Skin sensitization

Assessment of sensitization:

The chemical structure does not suggest a sensitizing effect.

Germ cell mutagenicity

Assessment of mutagenicity:

The chemical structure does not suggest such an effect.

Carcinogenicity

Assessment of carcinogenicity:

The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The chemical structure does not suggest such an effect.

Developmental toxicity

Assessment of teratogenicity:

The chemical structure does not suggest such an effect.

Experiences in humans

Information on: ethanediol; ethylene glycol

Experimental/calculated data:

consciousness is affected, kidney damage, Damage to the central nervous system:

The symptoms/diagnosis/findings mentioned may result with smaller doses.

mean lethal dose: 1500 mg/kg , oral, Adults

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

Repeated exposure to the substance by inhalative administration leads to effects similar to those found after single exposure. The substance may cause damage to the kidney after repeated skin contact. The substance may cause damage to the kidney after repeated ingestion.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Quaternary ammonium compound

No experimental evidence available for genotoxicity in vitro (Ames test negative).



12. Ecological information

Toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Inherently biodegradable.

Elimination information:

Inherently biodegradable.

Information on: Quaternary ammonium compound

Elimination information:

71 % (28 d) (ISO 14593) Readily biodegradable.

Bioaccumulative potential

Assessment bioaccumulation potential:

The product contains components with potential for bioaccumulation

Mobility in soil (and other compartments if available)

Assessment transport between environmental compartments:

Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria.

Other adverse effects

The product does not contain substances that are listed in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product has not been tested. The statement has been derived from products of a similar structure or composition.

13. Disposal considerations

Waste treatment methods

Incinerate in suitable incineration plant, observing local authority regulations.

The waste codes are manufacturer's recommendations based on the designated use of the product.

Other use and special waste disposal treatment on customer's location may require different wastecode assignments.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Waste key:

07 02 08~~8~~ other still bottoms and reaction residues

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.



14. Transport information

Land transport

ADR

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains QUATERNARY AMMONIUM SALTS)

RID

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains QUATERNARY AMMONIUM SALTS)

Inland waterway transport

ADN

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains QUATERNARY AMMONIUM SALTS)

Sea transport

IMDG

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Marine pollutant: YES

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains QUATERNARY AMMONIUM SALTS)

Air transport

IATA/ICAO

Hazard class: 9

Packing group: III

ID number: UN 3082

Hazard label: 9, EHSM

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains QUATERNARY AMMONIUM SALTS)

Further information

This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

This product is classified as dangerous for transport according to the Carriage of Dangerous Goods and Use of Transportable Pressure 2004.

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

The data should be considered when making any assessment under the Control of Substances



Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

Chemical Safety Assessment

Chemical Safety Assessment not yet performed due to registration timelines. Exposure scenarios for the mixture can not be provided at the moment because exposure scenarios are not yet available for all relevant substances due to registration timelines. For advice on essential measures see sections 7 and 8 of this safety data sheet.

16. Other information

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Xn Harmful.

C Corrosive.

N Dangerous for the environment.

22 Harmful if swallowed.

34 Causes burns.

50 Very toxic to aquatic organisms.

38 Irritating to skin.

41 Risk of serious damage to eyes.

Acute Tox. Acute toxicity

Skin Corr./Irrit. Skin corrosion/irritation

Eye Dam./Irrit. Serious eye damage/eye irritation

STOT RE Specific target organ toxicity — repeated exposure

Aquatic Acute Hazardous to the aquatic environment - acute

H302 Harmful if swallowed.

H373 May cause damage to organs (kidney) through prolonged or repeated exposure.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

H315 Causes skin irritation.

H318 Causes serious eye damage.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties. Recipients of our product must take responsibility for observing existing laws and regulations.