

Safety data sheet

Page: 1/8

BASF Safety data sheet according to 91/155/EEC

Date / Revised: 24.03.2006

Product: **Luviquat* FC 550**

Version: 1.1

(30035096/SDS_COS_EU/EN)

Date of print 03.02.2008

1. Substance/preparation and company identification

Luviquat* FC 550

Use: cosmetic ingredient

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Care Chemicals

Telephone: +49 621 60-28444

Telefax number: +49 621 60-28189

E-mail address: EM-Masterdata@basf.com

Emergency information:

Telephone: +49 180 2273-112

Telefax number: +49 621 60-92664

2. Composition/information on ingredients

Chemical nature

INCI Name: Polyquaternium-16

Preparation based on: 1H-Imidazolium, 1-ethenyl-3-methyl-, chloride, polymer with 1-ethenyl-2-pyrrolidinone (Content (W/W): 40 %), water (Content (W/W): 60 %)

CAS: 95144-24-4

3. Hazard identification

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. First-aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink plenty of water.

Note to physician:

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-fighting measures

Suitable extinguishing media:

water, carbon dioxide, foam, dry extinguishing media

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

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

6. Accidental release measures

Personal precautions:

No special precautions necessary.

Environmental precautions:

Do not discharge into drains/surface waters/groundwater.

Methods for cleaning up or taking up:

For large amounts: Dike spillage. Pump off product.

For residues: Pick up with suitable absorbent material.

Dispose of absorbed material in accordance with regulations.

7. Handling and storage

Handling

Handle in accordance with good industrial hygiene and safety practice.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

8. Exposure controls and personal protection

Components with workplace control parameters

Product contains residual monomer(s). The substance mentioned is contained only in traces in the product.

| 88-12-0: 1-vinyl-2-pyrrolidone

Personal protective equipment

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
Supplementary note: The specifications are based on own tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the determined permeation time.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

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

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form:	liquid
Colour:	clear yellowish
Odour:	faint specific odour
pH value:	7.0

BASF Safety data sheet according to 91/155/EEC
Date / Revised: 24.03.2006
Product: **Luviquat* FC 550**

Version: 1.1

(30035096/SDS_COS_EU/EN)

Date of print 03.02.2008

Boiling point:	100 °C (1,013 mbar)
Vapour pressure:	23 hPa (20 °C) 123 hPa (50 °C)
Density:	approx. 1.1 g/cm ³
Solubility in water:	miscible
Solubility (qualitative) solvent(s):	organic solvents soluble
Viscosity, dynamic:	approx. 2,500 mPa.s (25 °C)

10. Stability and reactivity

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

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

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological information

Acute toxicity

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

LD50 rat (oral): > 5,000 mg/kg (BASF-Test)

LC50 rat (by inhalation): > 5.1 mg/l 4 h (OECD Guideline 403)

LD50 rat (dermal): > 2,000 mg/kg (BASF-Test)

Irritation

Not irritating to the skin. Not irritating to the eyes.

Primary skin irritation rabbit: non-irritant (Draize test)

Primary irritations of the mucous membrane rabbit: non-irritant (Draize test)

Sensitization

Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

Genetic toxicity

No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in studies with mammals.

12. Ecological information

Ecotoxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50, 96 h, 0.7 mg/l, *Leuciscus idus*, DIN 38412 Part 15, static
The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates:

EC50, 48 h, 17.7 mg/l, *Daphnia magna*, OECD Guideline 202, part 1, static
The details of the toxic effect relate to the nominal concentration.

Aquatic plants:

EC50, 72 h, 0.32 mg/l, *Desmodesmus subspicatus*, OECD Guideline 201, static
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:

EC10, 17 h, 0.68 mg/l, *Pseudomonas putida*, DIN 38412 Part 8, aerobic
The details of the toxic effect relate to the nominal concentration.
EC20, > 1,000 mg/l, activated sludge, DIN/EN/ISO 8192, aerobic

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Not readily biodegradable (by OECD criteria). Poorly biodegradable. Moderately/partially eliminated from water. The product can be virtually eliminated from water by abiotic processes e.g. adsorption onto activated sludge.

Elimination information:

20 - 70 % DOC reduction (OECD Guideline 302 B) (aerobic, activated sludge)

Bioaccumulation potential

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

BASF Safety data sheet according to 91/155/EEC
 Date / Revised: 24.03.2006
 Product: **Luviquat* FC 550**

Version: 1.1

(30035096/SDS_COS_EU/EN)

Date of print 03.02.2008

The product has not been tested. The statement has been derived from the structure of the product.

13. Disposal considerations

Observe national and local legal requirements.

14. Transport information

Land transport

ADR	: Class	9
	Packing group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: COPOLYMER OF VINYLIMIDAZOLIUMMETHOCHLORID E AND VINYLPIRROLIDONE)

RID	: Class	9
	Packing group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: COPOLYMER OF VINYLIMIDAZOLIUMMETHOCHLORID E AND VINYLPIRROLIDONE)

Inland waterway transport

ADNR	: Class	9
	Packing group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: COPOLYMER OF VINYLIMIDAZOLIUMMETHOCHLORID E AND VINYLPIRROLIDONE)

BASF Safety data sheet according to 91/155/EEC
 Date / Revised: 24.03.2006
 Product: **Luviquat* FC 550**

Version: 1.1

(30035096/SDS_COS_EU/EN)

Date of print 03.02.2008

Sea transport

IMDG/GGVSee	: Class	9
	Packing group	III
	UN-number	3082
	Marine pollutant	YES
	Exact technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains COPOLYMER OF VINYLIMIDAZOLIUMMETHOCHLORID E AND VINYLPIRROLIDONE)

Air transport

ICAO/IATA	: Class	9
	Packing group	III
	UN-number	3082
	Exact technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains COPOLYMER OF VINYLIMIDAZOLIUMMETHOCHLORID E AND VINYLPIRROLIDONE)

15. Regulatory information**Regulations of the European union (Labelling) / National legislation/Regulations**

Hazard symbol(s) N	Dangerous for the environment.
R-phrase(s) R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s) S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Other regulations**16. Other information**

Vertical lines in the left hand margin indicate an amendment from the previous version.

BASF Safety data sheet according to 91/155/EEC

Date / Revised: 24.03.2006

Product: **Luviquat* FC 550**

Version: 1.1

(30035096/SDS_COS_EU/EN)

Date of print 03.02.2008

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.