

Safety data sheet

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BASF Safety data sheet according to 91/155/EEC
Date / Revised: 09.04.2003
Product: **RetiSTAR***

Version: 1.0

(30193733/SDS_GEN_GB/EN)

Date of print 21.12.2004

1. Substance/preparation and company identification**RetiSTAR***

Use: Chemical

Company:

BASF Aktiengesellschaft - D-67056 Ludwigshafen
Germany

Contact address:

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Emergency information:

Falck Euro Service
Tel: 0045 79 42 43 33

2. Composition/information on ingredientsChemical nature

Preparation based on: retinol, D,L-alpha-tocopherol, sodium ascorbate

dispersed in: glycerides, mixed decanoyl and octanoyl

Hazardous ingredients

Retinol (Vitamin A)

Content (W/W): 5 %
CAS Number: 68-26-8
EG-Number: 200-683-7
Hazard symbol(s): T, N
R-phrase(s): 61, 38, 43, 50/53

The wording of the hazard symbols and R-phrases is specified in chapter 16 if dangerous ingredients are mentioned.

3. Hazard identification

May cause harm to the unborn child.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
May cause sensitization by skin contact.

4. First-aid measures

General advice:

Remove contaminated clothing. First aid personnel should pay attention to their own safety.

If inhaled:

If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

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.

5. Fire-fighting measures

Suitable extinguishing media:

water, foam, dry extinguishing media

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

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

6. Accidental release measures

Personal precautions:

Use breathing apparatus if exposed to vapours/dust/aerosol.

Methods for cleaning up or taking up:

For large amounts: Pick up with suitable appliance and dispose of.

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

7. Handling and storage

Handling

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Storage

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

Protect against heat. Protect contents from the effects of light.

Protect from temperatures above: 60 °C

8. Exposure controls and personal protection

Personal protective equipment

Hand protection:

Suitable materials 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), polyvinylchloride (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 permeation time determined in accordance to EN 374.

Eye protection:

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

General safety and hygiene measures:

Under no circumstances should the product come into contact with the skin of pregnant women or be inhaled by them. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Form:	pasty
Colour:	yellowish
Odour:	faint specific odour
Solubility in water:	partly soluble
Miscibility with water:	immiscible
Viscosity, dynamic:	approx. 1.000 - 1.100 mPa.s (approx. 20 °C)
Solids content:	approx. 20 %

10. Stability and reactivity

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

11. Toxicological information

Information on: Retinol (Vitamin A)

LD50/oral/rat: > 2.000 mg/kg

Literature data.

Information on: DL-Alpha-Tocopherol

LD50/oral/rat: > 4.000 mg/kg

Literature data.

Information on: L-Ascorbic acid, monosodium salt

LD50/oral/rat: > 2.000 mg/kg

Literature data.

Information on: Caprylic/capric triglyceride

LD50/oral: > 2.000 mg/kg

Literature data.

Information on: Retinol (Vitamin A)

Primary skin irritation/rabbit: Irritant.

Literature data.

Information on: L-Ascorbic acid, monosodium salt

Primary skin irritation: non-irritant

Literature data.

Information on: DL-Alpha-Tocopherol

Primary skin irritation/rabbit: non-irritant

Literature data.

Information on: Caprylic/capric triglyceride

Primary skin irritation: non-irritant

Literature data.

Information on: Retinol (Vitamin A)

Primary irritations of the mucous membrane/rabbit: non-irritant

Literature data.

Information on: L-Ascorbic acid, monosodium salt

Primary irritations of the mucous membrane: non-irritant

Literature data.

Information on: DL-Alpha-Tocopherol

Primary irritations of the mucous membrane/rabbit: non-irritant

Literature data.

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Information on: Caprylic/capric triglyceride
Primary irritations of the mucous membrane: non-irritant
Literature data.

Information on: Retinol (Vitamin A)
Sensitization/Buehler test: sensitizing

Information on: L-Ascorbic acid, monosodium salt
Sensitization: Non-sensitizing.
Literature data.

Information on: Caprylic/capric triglyceride
Sensitization: Non-sensitizing.
Literature data.

Further information:

Information on: DL-Alpha-Tocopherol
No mutagenic effect was found in various tests with bacteria and mammalian cell culture.
Literature data.

Information on: L-Ascorbic acid, monosodium salt
In the majority of tests performed (microorganisms) a mutagenic effect was not found. A mutagenic effect was also not observed in in-vivo assays.
Literature data.

Information on: Retinol (Vitamin A)
In animal studies the substance caused malformations.

Information on: Retinol (Vitamin A)
Experiences in humans:

There are indications of coherence between the incorporation of high doses during pregnancy and deformations at humans (newborn child).

Additional information:

Information on: Caprylic/capric triglyceride
No experimental evidence available for genotoxicity in vitro (Ames test negative).
Literature data.

Information on: Retinol (Vitamin A)
No experimental evidence available for genotoxicity in vitro (Ames test negative).
Literature data.

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12. Ecological information

Ecotoxicity

Toxicity to fish:
LC50: 1 - 10 mg/l

Aquatic invertebrates:
Daphnia magna/EC50 (48 h): 1 - 10 mg/l

Aquatic plants:
algae/EC50: 1 - 10 mg/l

Persistence and degradability

Assessment: The product is partially biodegradable. Significant residues will remain.

Additional information

Other ecotoxicological advice:
Acutely harmful for aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal considerations

Incinerate in suitable incineration plant, observing local authority regulations.

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

14. Transport information

Land transport

ADR	: Class	9
	Packaging group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: RETINOL)

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RID	: Class	9
	Packaging group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: RETINOL)

Inland waterway transport

ADNR	: Class	9
	Item/Letter	11c)
	Packaging group	III
	UN-number	3082
	Designation of goods	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Contains: RETINOL)

Sea transport

IMDG/GGVSee	: Class	9
	Packaging group	III
	UN-number	3082
	Marine pollutant	YES
	Exact technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains RETINOL)

Air transport

ICAO/IATA	: Class	9
	Packaging group	III
	UN-number	3082
	Exact technical name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains RETINOL)

Further information

This product is subject to The Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations and their amendments (United Kingdom). This product is subject to The Carriage of Dangerous Goods by Road Regulations and The Carriage of Dangerous Goods by Rail Regulations and their amendments (United Kingdom).

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

Directive 1999/45/EEC ('Preparation Directive'):

Hazard symbol(s)

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T	Toxic.
N	Dangerous for the environment.
R-phrase(s)	
R61	May cause harm to the unborn child.
R43	May cause sensitization by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrase(s)	
S37	Wear suitable gloves.
S53	Avoid exposure - obtain special instructions before use.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

Hazard determinant component(s) for labelling: RETINOL

Other regulations

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

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

16. Other information

Full text of hazard symbols and R-phrases if mentioned as hazardous components in chapter 2:

T	Toxic.
N	Dangerous for the environment.
61	May cause harm to the unborn child.
38	Irritating to skin.
43	May cause sensitization by skin contact.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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.