

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 07 Jan 2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product name:

Retinol

1.1. Catalog No.:

677602

1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical
uses: R&D

1.3. Uses advised against:

HPC Standards GmbH
Am Wieseneck 7

04451 Cunnersdorf
Deutschland

Tel. +49 34291 3372-36
Fax. +49 34291 3372-39
contact@hpc-standards.com

1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36
This number is only available during office hours.

2. HAZARDS IDENTIFICATION

2.1

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Eye irritation

(
Category 2

),
H319

Skin sensitisation

(
Category 1

),
H317

Reproductive toxicity

(
Category 1B

),
H360

Chronic aquatic toxicity

(
Category 4

),
H413

Classification according to EU Directives 67/548/EEC or 1999/45/EC

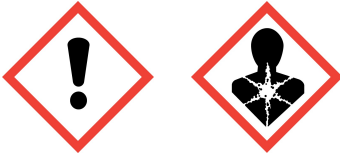
Xn

Harmful

R22, R38

2.2. Label elements

2.2.1. Pictogram



2.2.2.

2.2
Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram Signal word
Danger
Hazard statement(s)
H317
May cause an allergic skin reaction.
H319
Causes serious eye Irritation Sigma
-
R7632
Page
2
of
8
H360
May damage fertility or
the unborn child.
H413
May cause long lasting harmful effects to aquatic life.
Precautionary statement(s)
P201
Obtain special instructions before use.
P280
Wear protective gloves.
P305 + P351 + P338
IF IN EYES: Rinse cautiously with water for several minutes. Remove
contact lenses, if present and easy to do. Continue rinsing.
P308 + P313
IF exposed or concerned: Get medical advice/ attention.
Supplemental Hazard
Statements
none
Restricted to professional users.
2.3
Other hazards
-
none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1
Substances
Synonyms
:
Axerophthol
Vitamin
A1
Vitamin
A alcohol

all
-
trans
-
3,7
-
Dimethyl
-
9
-
(2,6,6
-
trimethyl
-
1
-
cyclohexen
-
1
-
yl)
-
2,4,6,8
-
nonatetraen
-
1
-
ol
Vitamin
A
Formula
:
C
20
H
30
O
Molecular Weight
:
286,45 g/mol
CAS
-
No.
:
68
-
26
-
8
EC
-
No.
:
200
-
683
-
7
Hazardous ingredients according to Regulation (EC) No 1272/2008
Component
Classification
Concentration
Retinol
CAS
-
No.
EC
-
No.
68
-
26
-
8
200
-
683
-
7
Eye Irrit.

2
.
Skin Sens.
1
.
Repr.
1B
.
Aquatic Chronic
4
.
H317, H319, H360, H413
<= 100 %
Hazardous ingredients according to Directive 1999/45/EC
Component
Classification
Concentration
Retinol
CAS
-
No.
EC
-
No.
68
-
26
-
8
200
-
683
-
7
T
R38
-
R43
-
R61
<= 100 %

3.1.1. Formula

C₂₀H₃₀O

3.1.2. Molecular Weight (g/mol)

286.45

3.1.3. CAS-No.

68-26-8

4. FIRST AID MEASURES

4.1

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If b

reathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution. If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2

Most important symptoms and effects, both acute and delayed

The most important known symptoms and

effects are described in the labelling (see section 2.2) and/or in

section 11

4.3

Indication of any immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol

-

resistant foam, dry chemical or carbon dioxide.

5.2

Special hazards arising from the substance or mixture

Carbon oxides

5.3

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4

Further information

no data available

6. ACCIDENTAL RELEASE MEASURES

6.1

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

For personal protection see section 8.

6.2

Environmental precautions

Do not let product enter drains.

6.3

Meth

ods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1

Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2

Conditions for safe storage, including any incompatibilities

Store in cool place.

Keep container tightly closed in a dry and well

-

ventilated place.

Recommended storage temperature:

-

20 °C

Air and moisture sensitive.

Store under nitrogen.

7.3

Specific end use(s)

Apart from the us

es mentioned in section 1.2 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1

Control parameters

Components with workplace control parameters

8.2

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and

at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side

-

shields conforming to EN1

66 Use equipment for eye protection tested

and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique

(without touch

ing glove's outer surface) to avoid skin contact with this product. Dispose of

contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry hands. Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be se

lected

according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/

P99 (US) or type ABEK

-

P2 (EU EN 143) respirator cartridges.

Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1

Information on basic physical and chemical properties

a)

Appearance

Form

:

crystalline

b)

Odour

no data available c)

Odour Threshold

no data available

d)

pH

no data available

e)

Melting point/freezing point

Melting point/range

:

61

-

63 °C

f)

Initial boiling point and boiling range

no data available

g)

Flash point

no data available

h)

Evaporation rate

no data available

i)

Flammability (solid, gas)

no data available

j)

Upper/lower

flammability or

explosive limits

no data available

k)

Vapour pressure

no data available

l)

Vapour density

no data available

m)

Relative density

no data available

n)

Water solubility

no data available

o)

Partition coefficient: n

-
octanol/water
no data available
p)
Auto
-
ignition
temperature
no data available
q)
Decomposition
temperature
no data available
r)
Viscosity
no data available
s)
Explosive properties
no data available
t)
Oxidizing properties
no data available
9.2
Other safety information
no data available

10. STABILITY AND REACTIVITY

10.1
Reactivity
no data available
10.2
Chemical stability
Stable under recommended storage conditions.
10.3
Possibility of hazardous reactions
no data available
10.4
Conditions to avoid
no data available
10.5
Incompatible materials
Oxidizing agents
10.6
Hazardous decomposition products
Other decomposition products
-
no data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1
Information on toxicological effects
Acute toxicity
no data available
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
Eyes

-
rabbit
Result
:
Irritating to eyes.
-
24 h
(
OECD Test Guideline 405
)
Respiratory or skin sensitisation
in vivo assay
-
guinea pig
Result
:
May cause sensitisation by skin contact.
(
OECD Test Guideline 406
)
Germ cell mutagenicity
Ames test
S. typhimurium
Result
:
negative
Mutagenicity (micronucleus test)
mouse
-
male
Result
:
negative
Carcinogenicity
IARC:
No component of this product present at levels greater than or equal to 0.1% is identified as
probable, possible or confirmed human carcinogen by IARC.
Reproductive toxicity
no data available Specific target organ toxicity
-
single exposure
no data available
Specific target organ toxicity
-
repeated exposure
no data available
Aspiration hazard
no data available
Additional Information
RTECS
:
VH6750000
Congenital abnormalities may occur after exposure to high concentrations during pregnancy.,
hypervitaminosis A, yellow pigmentation, Irritability, loss of appetite, Gastrointestinal disturbance,
Repeated exposure may cause skin dryness or cracking., Acute
vitamin A intoxication may occur with
exposure to high concentrations., sedation, Headache, exfoliative lesions

12. ECOLOGICAL INFORMATION

12.1
Toxicity
Toxicity to fish
static test
LC50
-
Leuciscus idus (Golden orfe)
-
> 10.000 mg/l
-
96 h

(
DIN 38412

)
Toxicity to daphnia and
other aquatic
invertebrates
static test
EC50

-
Daphnia magna (Water flea)

-
> 100 mg/l

-
48 h

(
OECD Test Guideline 202

)
Toxicity to bacteria
Respiration inhibition
EC50

-
Sludge Treatment

-
> 1.000 mg/l

-
180 min

(
OECD Test Guideline 209

) 12.2
Persistence and degradability
no data available

12.3
Bioaccumulative potential
no data available

12.4
Mobility in soil
no data available

12.5
Results of PBT and vPvB assessment
PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6
Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

13.1
Waste treatment methods
Product
Offer surplus and non

-
recyclable solutions to a licensed disposal company.
Dissolve or mix the material
with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
Contaminated packaging
Dispose of as unused pr
oduct.

14. TRANSPORT INFORMATION

14.1
UN number
ADR/RID
:
-
IMDG
:
-
IATA:
-
14.2
UN proper shipping name
ADR/RID
:
Not dangerous goods
IMDG
:
Not dangerous goods
IATA:
Not dangerous goods
14.3
Transport hazard class(es)
ADR/RID
:
-
IMDG
:
-
IATA:
-
14.4
Packaging group
ADR/RID
:
-
IMDG
:
-
IATA:
-
14.5
Environmental hazards
ADR/RID
:
no
IMDG
Marine pollutant
:
no
IATA:
no
14.6
Special precautions for user
no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1

Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available

15.2

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!