SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
Product name: Anthraquinone
CAS-No.: 84-65-1

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Industrial & for professional use only.

1.3 Details of the supplier of the safety data sheet
Company: Central Drug House (P) Ltd
7/28 Vardaan House
New Delhi-10002
INDIA
Telephone: +91 11 49404040
Email: care@cdhfinechemical.com

1.4 Emergency telephone number
Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Skin sensitisation (Category 1), H317

For the full text of the H-Statements mentioned in this Section, see Section 16.

Classification according to EU Directives 67/548/EEC or 1999/45/EC
Xi Irritant R43

For the full text of the R-phrases mentioned in this Section, see Section 16.

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Pictogram

Signal word Warning
Hazard statement(s)
H317 May cause an allergic skin reaction.
Precautionary statement(s)
P280 Wear protective gloves.
Supplemental Hazard none
2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances
Formula : C14H8O2
Molecular weight : 208.22
CAS-No. : 84-65-1
EC-No. : 201-549-0

Hazardous ingredients according to Regulation (EC) No 1272/2008

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthraquinone</td>
<td>Skin Sens. 1; H317</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

Hazardous ingredients according to Directive 1999/45/EC

<table>
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<tr>
<th>Component</th>
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<tbody>
<tr>
<td>Anthraquinone</td>
<td>Xi, R43</td>
<td>&lt;= 100 %</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

SECTION 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 breathed 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

SECTION 5: Firefighting 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 firefighting if necessary.

5.4 Further information
No data available

SECTION 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 Methods 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.

SECTION 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.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 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
Face shield and safety glasses 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 touching 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 selected 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: powder
   Colour: light yellow

b) Odour
   odourless

c) Odour Threshold
   No data available

d) pH
   No data available

e) Melting point/freezing point
   Melting point/range: 284 - 286 °C - lit.

f) Initial boiling point and boiling range
   379 - 381 °C - lit.

g) Flash point
   185 °C - closed cup

h) Evaporation rate
   No data available

i) Flammability (solid, gas)
   May form combustible dust concentrations in air

j) Upper/lower flammability or explosive limits
   No data available

k) Vapour pressure
   1,3 hPa at 190 °C

l) Vapour density
   No data available

m) Relative density
   1,44 g/cm3 at 20 °C

n) Water solubility
   0,00019 g/l at 20 °C

o) Partition coefficient: n-octanol/water
   log Pow: 3,4 at 30 °C
p) Auto-ignition temperature
   > 600 °C at 1.000 hPa
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

SECTION 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

SECTION 11: Toxicological information

11.1 **Information on toxicological effects**

**Acute toxicity**
LD50 Oral - Rat - female - > 2.000 mg/kg
LC50 Inhalation - Rat - 4 h - >= 244 mg/m3
LD50 Dermal - Rabbit - female - > 3.000 mg/kg

**Skin corrosion/irritation**
Skin - Rabbit
Result: No skin irritation - 4 h

**Serious eye damage/eye irritation**
Eyes - Rabbit
Result: No eye irritation - 24 h
(Directive 67/548/EEC, Annex V, B.5.)

**Respiratory or skin sensitisation**
in vivo assay - Mouse
May cause sensitisation by skin contact.

**Germ cell mutagenicity**
Hamster fibroblast
Result: negative
Mouse
Result: Laboratory experiments have shown mutagenic effects.

**Carcinogenicity**

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Anthraquinone)

**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**

Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - 1,36 mg/kg

No adverse effect has been observed in chronic toxicity tests.

RTECS: CB4725000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - > 0,4 mg/l - 96 h

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates: flow-through test EC50 - Daphnia magna (Water flea) - > 0,048 mg/l - 48 h


Remarks: No toxicity at the limit of solubility

**12.2 Persistence and degradability**

Biodegradability: anaerobic - Exposure time 28 d

Result: 62 % - Not readily biodegradable.


Chemical Oxygen Demand (COD): ca. 2.300 mg/l

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 Other adverse effects**

No data available

**SECTION 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 product.

**SECTION 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

**SECTION 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

**SECTION 16: Other information**

Full text of H-Statements referred to under sections 2 and 3.
H317 May cause an allergic skin reaction.
Skin Sens. Skin sensitisation

Full text of R-phrases referred to under sections 2 and 3
Xi Irritant
R43 May cause sensitisation by skin contact.

Further 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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.