



Qualikems

Qualikems Lifesciences Pvt. Ltd.

(Formerly known as Qualikems fine chem Pvt Ltd)

Works : Plot No. 68-69,G.I.D.C Industrial Estate,Nandesari,Vadodara-391340 (Gujarat)

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SECTION1:Identificationofthesubstance/mixtureandofthecompany/undertaking

Productidentifiers

Productname : **1,10-Phenanthroline Monohydrate**

CAS-No. : **5144-89-8**

Relevantidentifiedusesofthesubstanceormixtureandusesadvisedagainst

Identifieduses : Laboratorychemicals,Industrial&forprofessionaluseonly.

Detailsofthesupplierofthesafetydata sheet

Company : Qualikems Lifesciences Pvt Ltd

Works : Plot No. 68.69,G.I.D.C
Industrial Estate, Nandesari,
Vadodara-391340 (Gujarat)

Emergency telephone number

Emergency Phone # : +91-265-2841531 (9:00am - 6:30 pm) [Office hours]

SECTION2:Hazardsidentification

Classificationofthesubstanceormixture

ClassificationaccordingtoRegulation(EC)No1272/2008

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity(Category1),H410

Acute toxicity, Oral (Category 3), H301

ForthefulltextoftheH-StatementsmentionedinthisSection,seeSection16.

ClassificationaccordingtoEUDirectives67/548/EECor1999/45/EC

T Toxic R25

N Dangerous for the
environment R50/53

ForthefulltextoftheR-phrasesmentionedinthisSection,seeSection16.

Labellements

LabellingaccordingRegulation(EC)No1272/2008

Pictogram



Acute toxicity Hazardous to the aquatic environment

Signalword Danger

Hazard statement(s)

H301 Toxicifswallowed.

H410	Verytoxic to aquatic life with long lasting effects.
Precautionary statement(s) P273 P301 + P310	Avoid release to the environment. IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container to an approved waste disposal plant.
Supplemental Hazard Statements	none

Other hazards-none

SECTION 3: Composition/information on ingredients

Substances

Synonyms	:	o-Phenanthroline monohydrate
Formula	:	C ₁₂ H ₈ N ₂ ·H ₂ O
Molecular Weight	:	198,22g/mol
CAS-No.	:	5144-89-8
EC-No.	:	200-629-2
Index-No.	:	613-092-00-8

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

Component	Classification	Concentration
o-Phenanthroline hydrate	Acute Tox. 3; Aquatic Acute 1; Aquatic Chronic 1; H301, H410	-

Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
o-Phenanthroline hydrate	T, N, R25-R50/53	-

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

SECTION 4: First aid measures

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. Take victim immediately to hospital. 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.

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

Indication of any immediate medical attention and special treatment needed

no data available

SECTION5:Firefightingmeasures

Extinguishing media

Suitableextinguishingmedia

Usewater spray,alcohol-resistantfoam,drychemicalor carbon dioxide.

Specialhazardsarisingfromthesubstanceormixture

Carbonoxides,nitrogenoxides(NOx)

Adviceforfirefighters

Wearselfcontainedbreathingapparatusforfirefightingifnecessary.

Furtherinformation

nodataavailable

SECTION6:Accidentalreleasemeasures

Personalprecautions,protectiveequipmentandemergencyprocedures

Wearrespiratoryprotection.Avoiddustformation.Avoidbreathingvapours,mistorgas.Ensureadequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Forpersonalprotectionseesection8.

Environmentalprecautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methodsandmaterialsforcontainmentandcleaningup

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

Referencetoothersections

For disposal see section 13.

SECTION7:Handlingandstorage

Precautionsforsafehandling

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.

Conditionsforsafestorage,includinganyincompatibilities

Storeincoolplace.Keepcontainertightlyclosedinadryandwell-ventilatedplace. Hygroscopic. Store under inert gas.

Specificenduse(s)

Apartfromtheusesmentionedinsection1.2nootherspecificusesarestipulated

SECTION8:Exposurecontrols/personalprotection

Controlparameters

Componentswithworkplacecontrolparameters

Exposurecontrols

Appropriateengineeringcontrols

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personalprotectiveequipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate governmentstandards 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

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties**

a) Appearance	Form: powder Colour: white
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	Melting point/range: 100-104°C-lit.
f) Initial boiling point and boiling range	no data available
g) Flashpoint	not applicable
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	soluble
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

Other safety information

no data available

SECTION10:Stabilityandreactivity

Reactivity

nodataavailable

Chemicalstability

Stableunderrecommendedstorageconditions.

Possibilityofhazardousreactions

nodataavailable

Conditionstoavoid

Exposuretomoisture.

Incompatiblematerials

Acids,Strongoxidizingagents

Hazardousdecompositionproducts

Otherdecompositionproducts-nodataavailable In the event of fire: see section 5

SECTION11:Toxicologicalinformation

Informationontoxicologicaleffects Acute

toxicity

LD50Oral-rat-132mg/kg

Skincorrosion/irritation

nodataavailable

Seriouseyedamage/eyeirritation

nodataavailable

Respiratoryorskinsensitisation

nodataavailable

Germcellmutagenicity

nodataavailable

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.

Reproductivetoxicity

nodataavailable

Specifictargetorgantoxicity-singleexposure

nodataavailable

Specifictargetorgantoxicity-repeatedexposure

nodataavailable

Aspirationhazard

nodataavailable

AdditionalInformation

RTECS:SF8437000

SECTION12:Ecologicalinformation

Toxicity

nodataavailable

Persistenceanddegradability

nodataavailable

Bioaccumulativepotential

nodataavailable

Mobility in soil

no data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

Very toxic to aquatic life.

SECTION 13: Disposal considerations**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**UN number**

ADR/RID: 2811

IMDG: 2811

IATA: 2811

UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (o-Phenanthroline hydrate)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (o-Phenanthroline hydrate) IATA:

Toxic solid, organic, n.o.s. (o-Phenanthroline hydrate)

Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group

ADR/RID: III

IMDG: III

IATA: III

Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

Special precautions for user

no data available

SECTION 15: Regulatory information

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

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

no data available

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.**

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
H301	Toxic if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Full text of R-phrases referred to under sections 2 and 3

N	Dangerous for the environment
T	Toxic
R25	Toxic if swallowed.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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. Qualikems Lifesciences Pvt. Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.qualikems.com for additional terms and conditions of sale.