

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Trade name : Morin
Revision date : 09.02.2016
Print date : 09.02.2016
Version (Revision) : 3.0.0 (2.1.0)

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

1.1 Product identifier

Morin (M3735)

2',3,4',5,7-pentahydroxyflavone ; CAS No. : 480-16-0 ; EC No. : 207-542-9 ; REACH registration No. : 01-2120106725-61-0000

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

Metal surface treatment products, including galvanic and electroplating products ; Laboratory chemical ; Coatings and paints, thinners, paint removers ; Products such as ph-regulators, flocculants, precipitants, neutralization agents ; Non-metal-surface treatment products ; Water treatment chemicals

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

CU CHEMIE UETIKON GMBH

Street : RAIFFEISENSTR.4

Postal code/city : 77933 LAHR

Telephone : +49 7821 585-0

Information contact : reach@uetikon.com

1.4 Emergency telephone number

+49 7821 585-0 (9:00 - 17:00 Uhr)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aquatic Chronic 2 ; H411 - Hazardous to the aquatic environment : Category 2 ; Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms



Environment (GHS09)

Hazard statements

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P391 Collect spillage.

2.3 Other hazards

None

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SECTION 3: Composition / information on ingredients

3.1 Substances

Substance name : 2',3,4',5,7-pentahydroxyflavone

EC No. : 207-542-9

REACH No. : 01-2120106725-61-0000

CAS No. : 480-16-0

Purity : 100 % [mass]

3.3 Additional information

Substances which are listed on the "Candidate List of Substances of Very High Concern (SVHC) for authorisation" of the European Chemicals Agency are no intentional ingredients of this product. Therefore, it is not expected that these substances are present in amounts of > 0.1 %.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Remove contaminated, saturated clothing immediately. If unconscious place in recovery position and seek medical advice. First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of inhaling spray mist, consult a physician.

In case of skin contact

After contact with skin, wash immediately with plenty of water and soap.

After eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs.

4.2 Most important symptoms and effects, both acute and delayed

Headache , Dizziness , Nausea , Vomiting , Drowsiness , Unconsciousness Pulmonary irritation , Cough , Respiratory complaints

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO₂) , Foam , Water mist , Extinguishing powder

Unsuitable extinguishing media

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5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon dioxide (CO₂) , Carbon monoxide.

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5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove all sources of ignition. Provide adequate ventilation. Use personal protection equipment.

For emergency responders

Personal protection equipment: see section 8

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

For containment

Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

Take up mechanically, placing in appropriate containers for disposal. Use appropriate respiratory protection. Wear personal protection equipment (refer to section 8).

6.4 Reference to other sections

Personal protection equipment: see section 8 , Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

All work processes must always be designed so that the following is excluded: Inhalation of dust/particles , Skin contact , Eye contact . Provide adequate ventilation as well as local exhaust at critical locations. Keep away from sources of ignition. - No smoking. Only wear fitting, comfortable and clean protective clothing. Wash hands and face before breaks and after work and take a shower if necessary. Take precautionary measures against static discharges. When using do not eat, drink, smoke, sniff. Immediately remove any contaminated clothing, shoes or stockings. In the immediate working surroundings there must be : Emergency shower installed . Provide eye shower and label its location conspicuously .

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a cool, well-ventilated place. Take precautionary measures against static discharges. Store in a place accessible by authorized persons only. Only use the material in places where open light, fire and other flammable sources can be kept away.

Hints on joint storage

Storage class (TRGS 510) : 11

7.3 Specific end use(s)

None

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Does not contain substances above concentration limits fixing an occupational exposure limit.

8.2 Exposure controls

Control any potential exposure using measures such as contained or enclosed systems, properly designed and

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maintained facilities and a good standard of general ventilation. Drain down systems and transfer lines prior to breaking containment. Drain down and flush equipment where possible prior to maintenance. Where there is potential for exposure: Ensure relevant staff are informed of the nature of exposure and aware of basic actions to minimise exposures; ensure suitable personal protective equipment is available; clear up spills and dispose of waste in accordance with regulatory requirements; monitor effectiveness of control measures; consider the need for health surveillance; identify and implement corrective actions.

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Personal protection equipment



Eye/face protection

goggles

Skin protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Required properties : flame-retardant , antistatic. Draw up and observe skin protection programme.

Hand protection

Tested protective gloves must be worn . The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Suitable respiratory protection apparatus : dust mask

Environmental exposure controls

See Sections 6 and 7.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : solid

Colour : yellow

Odour : odourless

Safety relevant basis data

Melting point/melting range :	300 °C
Initial boiling point and boiling range :	No data available
Decomposition temperature :	No data available
Flash point :	not applicable
Ignition temperature :	No data available
Lower explosion limit :	No data available
Upper explosion limit :	No data available
Vapour pressure : (50 °C)	No data available
Relative density (water =1): (20 °C)	1,51
Water solubility : (20 °C)	0,25 g/l
pH :	No data available
log P O/W :	1,54

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Viscosity : (20 °C) not applicable
Odour threshold : No data available
Relative vapour density : (20 °C) No data available
Vapourisation rate : No data available
Flammable solids : Not highly flammable.
Oxidising solids : Not oxidising.
Explosive properties : Not explosive according to EU A.14.

9.2 Other information

None

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The substance is chemically stable under recommended conditions of storage, use and temperature.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Oxidising agent, strong.

10.6 Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter : LD50
Exposure route : Oral
Species : Rat
Effective dose : > 2000 mg/kg

Irritant and corrosive effects

Primary irritation to the skin

Parameter : Primary irritation to the skin
Result : not irritating
Method : OECD 439

Irritation to eyes

Parameter : Irritation to eyes
Species : Isolated Chicken Eye (ICE)
Result : Overall in vitro irritancy classifications : No prediction can be made
Method : OECD 438

Sensitisation

In case of skin contact

Parameter : Skin sensitisation

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Species : Mouse
Result : Not sensitising.
Method : OECD 429

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

Parameter : NOAEL(C)
Exposure route : Oral
Species : Rat
Effective dose : 356 mg/kg/d
Parameter : NOEL(C)
Exposure route : Oral
Species : Rat
Effective dose : 299 mg/kg/d
Method : OECD 408

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity

No information available.

Germ cell mutagenicity

No information available.

In vitro mutagenicity

Parameter : Gene-mutations microorganisms
Exposure route : In vitro mutagenicity
Species : Salmonella typhimurium
Test result : Ames test positive.
Parameter : Chromosomal aberrations mammalian cells
Exposure route : In vitro mutagenicity
Species : Hamster cells
Test result : Negative.

Reproductive toxicity

No information available.

STOT-single exposure

No information available.

STOT-repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) daphnia toxicity

Parameter : EC50
Species : Daphnia magna (Big water flea)
Evaluation parameter : Acute (short-term) daphnia toxicity
Effective dose : 53,3 mg/l
Method : OECD 202

Acute (short-term) algae toxicity

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Parameter : EC50
Species : Pseudokirchneriella subcapitata
Evaluation parameter : Acute (short-term) algae toxicity
Effective dose : 9,77 mg/l
Method : OECD 201

12.2 Persistence and degradability

Biodegradation

Parameter : BOD (% of ThOD)
Inoculum : Biodegradation
Evaluation parameter : Aerobic
Effective dose : 15,1 %
Exposure time : 28 Tage
Evaluation : Not readily biodegradable (according to OECD criteria)
Method : OECD 301D/ EEC 92/69/V, C.4-E

12.3 Bioaccumulative potential

Based on the n-octanol/water partition coefficient accumulation in organisms is not expected.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

No information available.

12.7 Additional ecotoxicological information

None

SECTION 13: Disposal considerations

13.1 Waste treatment methods

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Dispose of waste according to applicable legislation.

Product/Packaging disposal

Waste treatment options

Appropriate disposal / Package

Non-contaminated packages may be recycled. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

14.1 UN number

UN 3077

14.2 UN proper shipping name

Land transport (ADR/RID)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2',3,4',5,7-pentahydroxyflavone)

Sea transport (IMDG)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2',3,4',5,7-pentahydroxyflavone)

Air transport (ICAO-TI / IATA-DGR)

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2',3,4',5,7-pentahydroxyflavone)

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14.3 Transport hazard class(es)

Land transport (ADR/RID)

Class(es) : 9
Hazard identification number (Kemler No.) : 90
Hazard label(s) : 9

Sea transport (IMDG)

Class(es) : 9
Hazard label(s) : 9 / N

Air transport (ICAO-TI / IATA-DGR)

Class(es) : 9
Hazard label(s) : 9 / N

14.4 Packing group

III

14.5 Environmental hazards

Land transport (ADR/RID) : No
Sea transport (IMDG) : Yes (P)
Air transport (ICAO-TI / IATA-DGR) : Yes

14.6 Special precautions for user

None

SECTION 15: Regulatory information

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

EU legislation

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).
Observe in addition any national regulations!

National regulations

Water hazard class (WGK)

Class : 2 (Hazardous to water) according Self classification

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information

16.1 Indication of changes

02. Classification of the substance or mixture · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 07. Hints on joint storage - Storage class · 14. UN proper shipping name - Land transport (ADR/RID) · 14. UN proper shipping name - Sea transport (IMDG) · 14. UN proper shipping name - Air transport (ICAO-TI / IATA-DGR) · 14. Transport hazard class(es) - Land transport (ADR/RID) · 14. Transport hazard class(es) - Sea transport (IMDG) · 14. Transport hazard class(es) - Air transport (ICAO-TI / IATA-DGR) · 15. Water hazard class (WGK)

16.2 Abbreviations and acronyms

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment,

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chapter R.20 (Table of terms and abbreviations).

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]

not relevant

16.4 Relevant H- and EUH-phrases (Number and full text)

None

16.5 Training advice

None

16.6 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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