

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)
Classifications according to Regulation (EC) No 1272/2008.
Printdate 19 Dec 2023

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

1.1. Product name:

Difenzoquat methyl sulfate

1.1. Catalog No.:

682025

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
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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
Acute Tox. 3 H311 Toxic in contact with skin.
Aquatic Acute 1 H400 Very toxic to aquatic life.
Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
Acute Tox. 4 H302 Harmful if swallowed.

2.2. Label elements

2.2.1. Pictogram



2.2.2.

Signal word Danger

Hazard statements

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves / protective clothing.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical characterisation: Substances

CAS No. Description

43222-48-6 difenzoquat methyl sulfate

Identification number(s) None

EC number: 256-152-5

Index number: 613-056-00-1

RTECS: UQ9820000

3.1.1. Formula

C₁₈H₂₀N₂O₄S

3.1.2. Molecular Weight (g/mol)

360.43

3.1.3. CAS-No.

43222-48-6

4. FIRST AID MEASURES

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may occur even after several hours; therefore medical observation for at least 48 hours after the accident is recommended.

In case of irregular breathing or respiratory arrest provide artificial respiration.

After inhalation:

Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse mouth. Do not induce vomiting.

Seek medical treatment.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment: Wear self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to item 13.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Remove dust thoroughly.
Store in cool, dry place in tightly closed receptacles.
Information about fire - and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Please refer to the manufacturer certificate for specific storage and transport temperature conditions.
Store only in the original receptacle unless other advice is given on the CoA.
Keep container in a well-ventilated place. Keep away from sources of ignition and heat.
Information about storage in one common storage facility: Store away from foodstuffs.
Further information about storage conditions: None.

7.3 Specific end use(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: Not required.
Additional information: Lists used were valid at the time of SDS preparation.

8.2 Exposure controls

Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes and skin.
Respiratory protection:
Not required.
Use suitable respiratory protective device in case of insufficient ventilation.
Protection of hands:
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374
Material of gloves:
Nitrile rubber, NBR
Penetration time of glove material:
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:
Safety glasses

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information
Appearance:

Form: Crystalline
Colour: Colourless
Odour: Odourless
Odour threshold: Not determined.
pH-value: Not applicable.
Change in condition
Melting point/freezing point: 155-157 °C
Initial boiling point and boiling range: Not determined.
Flash point: >82 °C
Flammability (solid, gas): Not determined.
Ignition temperature: Not determined
Decomposition temperature: Not determined.
Auto-ignition temperature: Not determined.
Explosive properties: Not determined.
Explosion limits:
Lower: Not determined.
Upper: Not determined.
Vapour pressure at 20 °C: 0.0000001 hPa
Density at 20 °C: 0.796 g/cm³
Relative density Not determined.
Vapour density Not applicable.
Evaporation rate Not applicable.
Solubility in / Miscibility with water at 25 °C: 760 g/l
Partition coefficient: n-octanol/water: -0.61 logP
Viscosity:
Dynamic: Not applicable.
Kinematic: Not applicable.

9.2 Other information

No further relevant information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under normal conditions.
No further relevant information available.

10.2 Chemical stability

Stable under normal conditions.
Thermal decomposition / conditions to be avoided:
Formation of toxic gases is possible during heating or in case of fire.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Harmful if swallowed.
Toxic in contact with skin.
LD/LC50 values relevant for classification:
Oral LD50 206 mg/kg (rat)
Dermal LD50 470 mg/kg (rabbit)
Primary irritant effect:
Skin corrosion/irritation
Based on available data, the classification criteria are not met.
Serious eye damage/irritation
Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.
CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Carcinogenicity
Based on available data, the classification criteria are not met.
Reproductive toxicity
Based on available data, the classification criteria are not met.
STOT-single exposure
Based on available data, the classification criteria are not met.
STOT-repeated exposure
Based on available data, the classification criteria are not met.
Aspiration hazard
Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity:
EC50/48 h 2.53 mg/l (crustacean)
LC50/96 h 86.6 mg/l (fish)

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.
Ecotoxicological effects:
Remark: Very toxic for fish
Additional ecological information:
General notes:
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.
vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

Uncleaned packaging:

Recommendation: Dispose of in accordance with national regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR, IMDG, IATA UN2588

ADR 2588 PESTICIDE, SOLID, TOXIC, N.O.S. (difenzoquat methyl sulfate), ENVIRONMENTALLY HAZARDOUS

IMDG PESTICIDE, SOLID, TOXIC, N.O.S. (difenzoquat methyl sulfate), MARINE POLLUTANT

IATA PESTICIDE, SOLID, TOXIC, N.O.S. (difenzoquat methyl sulfate)

14.3 Transport hazard class(es)

ADR, IMDG

Class 6.1 Toxic substances.

Label 6.1

IATA

Class 6.1 Toxic substances.

Label 6.1

14.4 Packing group

ADR, IMDG, IATA III

14.5 Environmental hazards

Environmentally hazardous substance, solid; Marine Pollutant

Marine pollutant: Symbol (fish and tree)

Special marking (ADR): Symbol (fish and tree)

14.6 Special precautions for user

Warning: Toxic substances.

Danger code (Kemler): 60

EMS Number: F-A,S-A

Stowage Category A

Stowage Code SW2 Clear of living quarters.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ) 5 kg

Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 1000 g

Transport category 2

Tunnel restriction code E

UN "Model Regulation": UN 2588 PESTICIDE, SOLID, TOXIC, N. O. S. (DIFENZOQUAT METHYL SULFATE), 6.1, I II, ENVIRONMENTALLY HAZARDOUS

15. REGULATORY INFORMATION

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

Directive 2012/18/EU

Named dangerous substances - ANNEX I Substance is not listed.

Seveso category E1 Hazardous to the Aquatic Environment

Qualifying quantity (tonnes) for the application of lower-tier requirements 100 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 200 t

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been 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!