

SAFETY DATA SHEET

MF Mono

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

1.1. Product identifier

Trade name

MF Mono

Unique formula identifier (UFI)

M969-20ER-S00G-Y41F

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

Relevant identified uses of the substance or mixture

filler

Uses advised against

| Process category | Description |
|------------------|---|
| | The product is not intended for private end users |

1.3. Details of the supplier of the safety data sheet

Company and address

MURFACE GmbH

Birkenweg 8

D-33129 Delbrück

Germany

Tel. +49 52 50 - 4 19 93 00

E-mail

mail@murface.de

Revision

28-01-2022

SDS Version

1.0

1.4. Emergency telephone number

Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

STOT RE 2; H373, May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

May cause damage to organs through prolonged or repeated exposure. (H373)

Safety statement(s)

General



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

-

Prevention

Do not breathe vapour/mist. (P260)

Response

Get medical advice/attention if you feel unwell. (P314)

Storage

-

Disposal

Dispose of contents/container to an approved waste disposal plant. (P501)

Hazardous substances

Quartz (SiO₂)

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

| Product/substance | Identifiers | % w/w | Classification | Note |
|---|---|-------------|---|------|
| Quartz (SiO ₂) | CAS No.: 14808-60-7 EC No.: 238-878-4 REACH: Index No.: | ≥47,5-<50% | STOT RE 2, H373 | |
| Barium sulfate | CAS No.: 7727-43-7 EC No.: 231-784-4 REACH: Index No.: | ≥21-<22,5% | | [1] |
| 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve | CAS No.: 111-76-2 EC No.: 203-905-0 REACH: Index No.: 603-014-00-0 | ≥0,3-<0,35% | Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Acute Tox. 4, H332 Eye Irrit. 2, H319 | [1] |
| (2-methoxymethylethoxy)propanol | CAS No.: 34590-94-8 EC No.: 252-104-2 REACH: Index No.: | ≥0,3-<0,35% | | [1] |

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

[1] European occupational exposure limit



SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses and open eyes widely. Flush eyes with water or saline water (20-30°C) for at least 5 minutes. Seek medical assistance and continue flushing during transport.

Ingestion

Provide plenty of water for the person to drink and stay with him/her. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the victim lean forward with head down to avoid inhalation of- or choking on vomited material.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

No special

4.3. Indication of any immediate medical attention and special treatment needed

Call a POISON CENTER / doctor if you feel unwell.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage temperature

Room temperature 18 to 23°C (Storage on stock, 3 to 8°C)

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

—
Quartz (SiO₂)

Long term exposure limit (8 hours) (mg/m³): 0,1 (respirable fraction)

Annotations:

Carc = Capable of causing cancer and/or heritable genetic damage.

—
Barium sulfate

Long term exposure limit (8 hours) (mg/m³): 10(inhalable)/4(respirable)

—
2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve

Long term exposure limit (8 hours) (ppm): 25

Long term exposure limit (8 hours) (mg/m³): 123

Short term exposure limit (15 minutes) (ppm): 50

Short term exposure limit (15 minutes) (mg/m³): 246

Annotations:

BMVG = Biological Monitoring Guidance Value exists

Sk = Can be absorbed through the skin and lead to systemic toxicity.

—
(2-methoxymethylethoxy)propanol

Long term exposure limit (8 hours) (ppm): 50

Long term exposure limit (8 hours) (mg/m³): 308

Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
EH40/2005 Workplace exposure limits (Fourth Edition 2020).

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

DNEL

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| DNEL | |
| Route of exposure | |
| Duration | |

PNEC

No data available

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only CE marked protective equipment.


No specific requirements

Respiratory Equipment

| Type | Class | Colour | Standards |
|-----------------------------------|-------|--------|-----------|
| No special when used as intended. | | | |


Skin protection

| Recommended | Type/Category | Standards |
|--|---------------|-----------|
| Dedicated work clothing should be worn | - | - |



Hand protection

| Material | Glove thickness (mm) | Breakthrough time (min.) | Standards |
|-----------|----------------------|--------------------------|-----------------------|
| Vinyl/PVC | - | > 480 | EN374-3, EN388, EN511 |



Eye protection



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

| Type | Standards |
|-----------------------------------|-----------|
| Safety glasses with side shields. | EN166 |



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Paste

Colour

White

Odour / Odour threshold

Characteristic

pH

8,5

Density (g/cm³)

1.8

Kinematic viscosity

Testing not relevant or not possible due to nature of the product.

Particle characteristics

Testing not relevant or not possible due to nature of the product.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Boiling point (°C)

100 °C

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

80 °C

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

| | |
|-------------------|----------------|
| Product/substance | Barium sulfate |
| Test method | |
| Species | Rat |
| Route of exposure | Oral |
| Test | LD50 |
| Result | >3000 mg/kg |
| Other information | |

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | OECD 401 |
| Species | Rat |
| Route of exposure | Inhalation |
| Test | LC50 (gas) |
| Result | 2,2 mg/L |
| Other information | |

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Species | Rabbit |
| Route of exposure | Dermal |
| Test | LD50 |
| Result | 405 mg/kg |
| Other information | |

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Species | Rat |
| Route of exposure | Oral |
| Test | LD50 |



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

| | |
|-------------------|-----------|
| Result | 615 mg/kg |
| Other information | |

| | |
|-------------------|---------------------------------|
| Product/substance | (2-methoxymethylethoxy)propanol |
| Test method | |
| Species | Rabbit |
| Route of exposure | Dermal |
| Test | LD50 |
| Result | 13000 mg/kg |
| Other information | |

| | |
|-------------------|---------------------------------|
| Product/substance | (2-methoxymethylethoxy)propanol |
| Test method | |
| Species | Rat |
| Route of exposure | Oral |
| Test | LD50 |
| Result | 5300 mg/kg |
| Other information | |

| | |
|-------------------|---------------------------------|
| Product/substance | (2-methoxymethylethoxy)propanol |
| Test method | |
| Species | Rat |
| Route of exposure | Inhalation |
| Test | LC50 |
| Result | 54,6 mg/L |
| Other information | |

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/irritation

| | |
|-------------------|---|
| Product/substance | Barium sulfate |
| Test method | |
| Species | |
| Duration | |
| Result | Adverse effect observed (Causes serious eye damage) |
| Other information | |

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Skin sensitisation

Based on available data, the classification criteria are not met.

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

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

Long term effects

No special

Endocrine disrupting properties

No special

Other information

Quartz (SiO₂) has been classified by IARC as a group 1 carcinogen.

2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Species | Crustacean |
| Compartment | |
| Duration | 48 hours |
| Test | EC50 |
| Result | 1550 mg/L |
| Other information | |

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Species | Fish |
| Compartment | |
| Duration | 96 hours |
| Test | LC50 |
| Result | 1474 mg/L |
| Other information | |

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Species | Algae |
| Compartment | |
| Duration | 72 hours |
| Test | EC50 |
| Result | 1840 mg/L |
| Other information | |

12.2. Persistence and degradability

| | |
|-------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Biodegradable | Yes |
| Test method | |
| Result | |

12.3. Bioaccumulative potential



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

| | |
|---------------------------|---|
| Product/substance | 2-butoxyethanol; ethylene glycol monobutyl ether;2-butoxyethanol;ethylene glycol monobutyl ether;butyl cellosolve |
| Test method | |
| Potential bioaccumulation | Yes |
| LogPow | No data available |
| BCF | 0,81 |
| Other information | |

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special

12.7. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 5 - Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

EWC code

Not applicable

Specific labelling

Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

SECTION 14: Transport information

14.1. - 14.4.

Not dangerous goods according to ADR, IATA and IMDG.

ADR/RID

Not applicable

IMDG

Not applicable

MARINE POLLUTANT

No

IATA

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

No data available



SECTION 15: Regulatory information

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

Restrictions for application

Restricted to professional users.

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

Not applicable

Additional information

Not applicable

Sources

The Management of Health and Safety at Work Regulations 1999

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

CLP Regulation (EC) No 1272/2008, as retained and amended in UK law.

EC-Regulation 1907/2006 (REACH), as amended by UK REACH Regulations SI 2019/758

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

H312, Harmful in contact with skin.

H315, Causes skin irritation.

H319, Causes serious eye irritation.

H332, Harmful if inhaled.

H373, May cause damage to organs through prolonged or repeated exposure.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container



According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit.

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVCB = Complex hydrocarbon substance

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The safety data sheet is validated by

Murface

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en