

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 29.06.2016

Version: 3.00

Revision: 29.06.2016

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

- **1.1 Product identifier**
 - **Trade name: MIRAVIT MilchStabil**
 - **1.2 Relevant identified uses of the substance or mixture and uses advised against: -**
 - **Application of the substance / the preparation:** Complementary feedingstuff
 - **Uses advised against -**
 - **1.3 Details of the supplier of the safety data sheet**
 - **Supplier/Manufacturer:**
VitaVis GmbH
Industrieweg 110
48155 Münster
Germany
 - Tel.: +49 (0) 251-682-1144
 - Fax: +49 (0) 251-682-2008
 - **Email competent person:** sds@kft.de
 - **Information department:** See supplier/manufacturer
 - **1.4 Emergency telephone number:**
National Poison Information Service (NPIS)
24 hour national number professionals only
0844 892 0111
 - National Health Service (NHS)
24 hour national number consumer
England and Scotland: 111
Wales: 0845 46 47
Northern Ireland: call your local General Practitioner
- Call 999 if there is a life-threatening incident.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Classification system:** The classification is based on own toxicological test results.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008** The product is classified and labelled according to the CLP regulation.

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· Hazard pictograms



GHS05 GHS07

· Signal word Danger

· Hazard-determining components of labelling:

propionic acid
formic acid
acetic acid
lactic acid

· Hazard statements

H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

· Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P332+P313 If skin irritation occurs: Get medical advice/attention.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

- PBT: Not applicable
- vPvB: Not applicable

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 79-09-4	propionic acid	10-20%
EINECS: 201-176-3	Flam. Liq. 3, H226; Skin Corr. 1B, H314; Eye Dam. 1, H318	
Index number: 607-089-00-0		
REACH-no: 01-2119486971-24-xxxx		
CAS: 64-18-6	formic acid	10-20%
EINECS: 200-579-1	Flam. Liq. 3, H226; Acute Tox. 3, H331; Skin Corr. 1A, H314; Acute Tox. 4, H302	
Index number: 607-001-00-0		
REACH-no: 01-2119491174-37-xxxx		
CAS: 64-19-7	acetic acid	5-10%
EINECS: 200-580-7	Flam. Liq. 3, H226; Skin Corr. 1A, H314	
Index number: 607-002-00-6		
REACH-no: 01-2119475328-30-xxxx		

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CAS: 77-92-9	citric acid	1-5%
EINECS: 201-069-1	Eye Irrit. 2, H319	
REACH-no: 01-2119457026-42-xxxx		
CAS: 50-21-5	lactic acid	1-5%
EINECS: 200-018-0	Eye Dam. 1, H318; Skin Irrit. 2, H315	
REACH-no: 01-2119548400-48-xxxx		
CAS: 56-81-5	glycerol	1-5%
EINECS: 200-289-5	substance with a Community workplace exposure limit	
CAS: 24634-61-5	potassium (E,E)-hexa-2,4-dienoate	< 2.5%
EINECS: 246-376-1	Skin Irrit. 2, H315; Eye Irrit. 2, H319	

• **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• General information:

Remove affected persons from danger area and lay them down.

Immediately remove any clothing soiled by the product.

• **After inhalation:** Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

• After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

• **After eye contact:** Rinse the eyes with open eyelids for 10 - 15 minutes with water. Then consult an eye specialist immediately.

• After swallowing:

Rinse mouth with water.

Spit liquid out again.

Never give anything by mouth to an unconscious person.

After swallowing large amounts, call a doctor

Do not induce vomiting.

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

Local irritation symptoms

After contact with vapours:

Irritant effect on the respiratory tract

• 4.3 Indication of any immediate medical attention and special treatment needed Symptomatic treatment

SECTION 5: Firefighting measures

• 5.1 Extinguishing media

• Suitable extinguishing agents:

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

Use fire fighting measures that suit the environment.

• For safety reasons unsuitable extinguishing agents: High volume water jet

• 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

Irritant gases/vapours

• 5.3 Advice for firefighters

• **Protective equipment:** Wear self-contained respiratory protective device.

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Additional information:

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective clothing.
Ensure adequate ventilation.
Avoid formation of dust.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Do not smoke - keep ignition sources away

6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.
Do not allow to penetrate the ground/soil.

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.
Small quantities:
Pick up mechanically.
Large quantities:
Pick up with a suitable vacuum cleaner.
Make sure to recycle or dispose of in suitable receptacles.

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.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed.
Avoid inhalation of dust.

Information about protection against explosions and fires: Observe the general rules of industrial fire protection.

7.2 Conditions for safe storage, including any incompatibilities**Storage:****Requirements to be met by storerooms and receptacles:**

Store container tightly sealed at a cool and dry place with sufficient ventilation.

Information about storage in one common storage facility:

Store away from feed.
Store away from foodstuffs.
Refer to national regulations for storing hazardous chemicals.

Further information about storage conditions: Protect from humidity and water.

Storage class: 10-13 other combustible and non-combustible substances

7.3 Specific end use(s) No further relevant information available

SECTION 8: Exposure controls/personal protection**Additional information about design of technical systems:**

Install appropriate mechanical ventilation.

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No further data; see section 7.

8.1 Control parameters**Components with limit values that require monitoring at the workplace:****79-09-4 propionic acid**WEL (Great Britain) Short-term value: 46 mg/m³, 15 ppm
Long-term value: 31 mg/m³, 10 ppmIOELV (European Union) Short-term value: 62 mg/m³, 20 ppm
Long-term value: 31 mg/m³, 10 ppm**64-18-6 formic acid**WEL (Great Britain) Long-term value: 9.6 mg/m³, 5 ppmIOELV (European Union) Long-term value: 9 mg/m³, 5 ppm**64-19-7 acetic acid**IOELV (European Union) Long-term value: 25 mg/m³, 10 ppm**56-81-5 glycerol**WEL (Great Britain) Long-term value: 10 mg/m³**Additional information:** The lists that were valid during the creation were used as basis.**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Vacuum contaminated clothing. Do not blow or brush off contamination.

Use skin protection cream for skin protection.

After skin contact, cleanse skin thoroughly.

After contact with eyes, rinse immediately.

Provide eye bath.

Breathing equipment:

In case of unintentional release of substance, exceeding the occupational exposure limit value:



In case of brief exposure or low pollution use a respiratory filter device. In case of intensive or longer exposure use a respiratory protective device that is independent of circulating air.

Filter type: A

Filter P2

Protection of hands:

Chemical resistant gloves (EN 374)

The glove material has to be impermeable and resistant to the product/substance/preparation.

Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation

After use of gloves apply skin-cleaning agents and skin cosmetics.

Material of gloves:

For undissolved solid substances following materials may be suitable:

nitrile rubber (NBR), butyl rubber (BR), fluorocarbon rubber (FKM) and polychloroprene rubber (CR)

Penetration time of glove material:

The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection: Tightly sealed goggles**Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information:	
· Appearance:	
Form:	Powder
Colour:	White
· Odour:	Pungent
· Odour threshold:	Not determined
· pH-value (50 g/l) at 20 °C:	2.5-3.5
· Change in condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
· Flash point:	Not applicable
· Flammability (solid, gaseous):	Not determined
· Ignition temperature:	Not determined
· Decomposition temperature:	Not determined
· Self ignition temperature:	Not determined
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined
Upper:	Not determined
· Oxidizing properties:	Non-oxidizing
· Vapour pressure:	Not applicable
· Density:	Not determined
· Bulk density at 20 °C:	500-600 kg/m ³
· Relative density:	Not determined
· Vapour density:	Not determined
· Evaporation rate:	Not applicable
· Solubility in / Miscibility with	
Water:	Not determined
· Partition coefficient (n-octanol/water): Not determined	
· Viscosity:	
dynamic:	Not applicable
kinematic:	Not applicable
· 9.2 Other information	No further relevant information available

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available
- **10.2 Chemical stability** stable under normal conditions
- **Thermal decomposition / conditions to be avoided:** No decomposition if used and stored according to specifications
- **10.3 Possibility of hazardous reactions** Violent reactions possible with below mentioned substances
- **10.4 Conditions to avoid** No further relevant information available

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- **10.5 Incompatible materials:**

Strong leaches
Oxidants

- **10.6 Hazardous decomposition products:**

No hazardous decomposition products if instructions for storage and handling are followed

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

ATE oral: >2000 mg/kg
ATE dermal: >5000 mg/kg
ATE inhalation (vapours): 40 mg/l
ATE inhalative (dust/mist): 148 mg/l

- **64-18-6 formic acid**

Oral LD₅₀ 730 mg/kg (rat) (OECD 401)

Dermal LD₅₀ 940 mg/kg (rabbit)

Inhalative LC₅₀/4 h 7.4 mg/l (rat) (OECD 403)
vapour

- **Primary irritant effect:**

- **Skin corrosion/irritation**

In analogy to similar products
Causes skin irritation.

- **Serious eye damage/irritation**

In analogy to similar products
Causes serious eye damage.

- **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**

- **64-18-6 formic acid**

Oral NOAEL (P) 650 mg/kg bw/day (rat) (OECD 416)

NOAEL(developmental) 667 mg/kg bw/day (rabbit) (OECD 414)

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

- **STOT-single exposure**

May cause respiratory irritation.

- **STOT-repeated exposure**

- **64-18-6 formic acid**

Oral LOAEL 2000 mg/kg bw/d (rat) (OECD 453)
Read across to structur analogen

NOAEL 400 mg/kg/day (rat) (OECD 453)
Read across to structur analogen

Inhalative LOAEC 244 mg/m³ (rat) (OECD 413)

NOAEC local/90d 0,122 mg/l (Ratte) (OECD 413)

NOAEC systemic/90d 0,244 mg/l (Ratte) (OECD 413)

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

- **Aspiration hazard** Not relevant

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

64-18-6 formic acid

LC₅₀/48h 122 mg/l (Leuciscus idus)LC₅₀/96h 130 mg/l (Danio rerio) (OECD 203)
READ ACROSS, CAS 540-69-2EC₅₀/48h 120 mg/l (Daphnia magna)
READ ACROSS, CAS 540-69-2EC₅₀/72h 1240 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
26.9 mg/l (Scenedesmus subspicatus)NOEC/21d ≥100 mg/l (Daphnia magna) (OECD 211)
semi-static

12.2 Persistence and degradability Readily biodegradable

12.3 Bioaccumulative potential Bioaccumulation is not to be expected.

12.4 Mobility in soil No further relevant information available

Ecotoxicological effects:

Remark: Harmful effects possible due to shift of pH-value.

Additional ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous to water

According to appendix 4 of VwVwS dated 17.05.1999 (German regulation)

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Danger to drinking water is possible if large quantities leak into the ground or into water course.

Discharging bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable

vPvB: Not applicable

12.6 Other adverse effects No further relevant information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation:

Must be recycled or disposed of according to the regulations. Waste has to be classified according to the European Waste Catalogue based on the identification of the waste generating source.

Disposal according to instructions of local authorities

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

European waste catalogue:

16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 03 00 off-specification batches and unused products

16 03 05* organic wastes containing hazardous substances

Uncleaned packagings:

Recommendation:

Collect only completely empty packaging for recycling.

Do not reuse packaging.

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Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable
· Transport/Additional information:	Not dangerous according to the above regulations
· UN "Model Regulation":	Void

SECTION 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 None of the ingredients is listed.
- National regulations
- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Replaces version dated: Version/s 1-2 is/are not available in this language.
- Relevant phrases
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H314 Causes severe skin burns and eye damage.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H331 Toxic if inhaled.
- Classification according to Regulation (EC) No 1272/2008
 - Eye Dam.1, Skin Irrit. 2 based on test data

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STOT SE3 calculation method

Department issuing SDS:

KFT Chemieservice GmbH
Im Leuschnerpark. 3 64347 Griesheim
Postfach 1451 64345 Griesheim
Germany

Phone: +49 6155 8981 400 Fax: +49 6155 8981 500

Safety Data Sheet Service: +49 6155 8981 522

Contact: Barbara Stark**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

SVHC: Substances of Very High Concern

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Sources: MSDS of the supplier