

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

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

#### 1.1. Product identifier

Trade name: SoftAcid Aqua M

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

Recommended uses: pH-adjusting agent  
Silage

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Company: Borregaard AS  
Address: P.O. Box 162  
City: 1701 Sarpsborg  
Country: NORWAY  
E-mail: sds@borregaard.com  
Phone: + 47 69 11 80 00  
Fax: + 47 69 11 87 70

#### 1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24)).  
+47 69 11 88 88 (Borregaard emergency 24 h)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

CLP-classification: Acute Tox. 4;H302 Skin Corr. 1B;H314 Acute Tox. 4;H332

Most serious harmful effects: Harmful if swallowed. Causes severe skin burns and eye damage. Harmful if inhaled.

#### 2.2. Label elements

##### Pictograms



Signal word: Danger

##### Contains

Substance: Formic acid 85%;

##### Hazard Statements

H302 Harmful if swallowed.  
H314 Causes severe skin burns and eye damage.  
H332 Harmful if inhaled.

##### Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

P301+330+331+315

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Get immediate medical advice/attention.

P304+340+315

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get immediate medical advice/attention.

P305+351+338+315

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

P303+361+353+310

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. Immediately call a POISON CENTER/doctor

### Supplemental information

EUH071

Corrosive to the respiratory tract.

### 2.3. Other hazards

None known.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
Formic acid 85%	64-18-6 200-579-1 01-2119491174-37	75 - 80 %		Acute Tox. 4;H302 Skin Corr. 1B;H314 Acute Tox. 3;H331  EUH071  LC50 (vapour) (Acute toxicity - inhalation): 9.24 mg/l LD50 (Acute toxicity - oral): 858.82 mg/kg bw
Sodium lignosulfonate (Lignosulfonic acid, sodium salt), fluid	8061-51-6	15 - 25 %		

Please see section 16 for the full text of H- / EUH-phrases.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation:**

Seek fresh air. Call a POISON CENTER or doctor/physician.

**Ingestion:**

Do not induce vomiting. Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor/physician.

**Skin contact:**

Remove contaminated clothing. Wash the skin thoroughly with water and continue washing for a long time. Seek medical advice immediately. Wash contaminated clothing before reuse.

**Eye contact:**

Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.

**General:**

When obtaining medical advice, show the safety data sheet or label.

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

Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight. Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin. Harmful if swallowed. Harmful by inhalation.

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

Ensure that medical personnel are aware of the material involved, and take precautions to protect themselves. Treat symptoms. Take off contaminated clothing and wash before reuse.

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:** Extinguish with powder, foam, carbon dioxide or water mist.

**Unsuitable extinguishing media:** Do not use water stream, as it may spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

Can generate harmful flue gases containing carbon monoxide in the event of fire.

#### 5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** Keep unnecessary personnel away. Stay upwind/keep distance from source. Stop leak if this can be done without risk. In case of insufficient ventilation, wear respiratory protective equipment. Wear safety goggles. Wear gloves. Wear suitable protective clothing.

#### 6.2. Environmental precautions

Avoid unnecessary release to the environment. Prevent spillage from entering drains and/or surface water.

#### 6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers. Provide good ventilation.

#### 6.4. Reference to other sections

See section 13 for instructions on disposal.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

All work must be carried out under well-ventilated conditions. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not eat, drink or smoke during work. Avoid contact with skin and eyes.

#### 7.2. Conditions for safe storage, including any incompatibilities

Store in a well-ventilated area. Store in a dry, cool, well-ventilated area.

#### 7.3. Specific end use(s)

None.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limit

Substance name	Time period	ppm	mg/m <sup>3</sup>	fiber/cm <sup>3</sup>	Remarks	Comments
Formic acid 85%	8h	5	9			

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022  
Version: 2.3.0

**Measuring methods:** Compliance with occupational exposure limits may be checked by occupational hygiene measurements.

### PNEC

Formic acid 85%, cas-no 64-18-6				
Exposure	Value	Assessment Factor	Extrapolation Method	Note
PNEC aqua (freshwater)	2 mg/l			
PNEC sediment (freshwater)	13.4 mg/kg dw			
PNEC aqua (marine water)	0.2 mg/l			
PNEC sediment (marine water)	1.34 mg/kg dw			
PNEC STP (wastewater-treatment facilities)	7.2 mg/l			

### DNEL - workers

Formic acid 85%, cas-no 64-18-6					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - local effects)	19 mg/m <sup>3</sup>				
Inhalation DNEL (long-term exposure - local effects)	9.5 mg/m <sup>3</sup>				

### DNEL - general population

Formic acid 85%, cas-no 64-18-6					
Exposure	Value	Assessment Factor	Dose Descriptor	Main Impact Parameter	Note
Inhalation DNEL (acute/short-term exposure - local effects)	9.5 mg/m <sup>3</sup>				
Inhalation DNEL (long-term exposure - local effects)	3 mg/m <sup>3</sup>				

## 8.2. Exposure controls

**Appropriate engineering controls:** Do not eat, drink or smoke when using this product.

**Personal protective equipment, eye/face protection:** Wear safety goggles/face protection. Eye protection must conform to EN 166.

**Personal protective equipment, skin protection:** Wear suitable protective clothing. Wear rubber apron and boots as required.

**Personal protective equipment, hand protection:** Type of material and thickness: Butyl rubber. 0.8 mm Penetration time: >8 hours. Gloves must conform to EN 374.

**Personal protective equipment, respiratory protection:** Wear respiratory protective equipment. Filter type: A.

## SECTION 9: Physical and chemical properties

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

### 9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Brown
Odour	Characteristic
Solubility	Completely miscible Solubility in water: Highly soluble

Parameter	Value/unit	Remarks
Odour threshold	> 11 ppm	Formic acid 85 %
Melting point	-20 - -13.5 °C	Formic acid 85 %
Freezing point	-20 - -13.5 °C	Formic acid 85 %
Initial boiling point and boiling range	107 °C	Formic acid 85 %
Flammability (solid, gas)		Not applicable. Liquid
Flammability limits		Data not available
Explosion limits	15 - 48 vol%	Formic acid 85 %
Flash Point	62 - 67 °C	Formic acid 85 %
Auto-ignition temperature	> 500 °C	Formic acid 85 %
Decomposition temperature	°C	Data not available
pH (solution for use)	< 1	
pH (concentrate)	< 1	
Kinematic viscosity	No data	
Viscosity	1.6 cSt	Formic acid 85 %
Partition coefficient n-octanol/water	-0.6	
Vapour pressure	4.4 - 5.7 kPa	Formic acid 85 %
Density	1.07 g/cm <sup>3</sup>	
Relative density		Data not available
Vapour density		Data not available
Relative density (sat. air)	No data	
Particle characteristics	No data	

### 9.2. Other information

Parameter	Value/unit	Remarks
Evaporation rate		Data not available
Explosive properties		Non-explosive
Oxidising properties		Non-oxidising.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Not reactive.

### 10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Avoid heating and contact with ignition sources.

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

### 10.5. Incompatible materials

Avoid contact with the following: Acids/ Strong oxidisers/ Strong alkalis/

### 10.6. Hazardous decomposition products

None known.

## SECTION 11: Toxicological information

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

#### Acute toxicity - oral

##### Formic acid 85%, cas-no 64-18-6

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50	4 h	858.82 mg/kg bw		OECD 401	

Harmful if swallowed.

**Acute toxicity - dermal:** Based on existing data, the classification criteria are deemed not to have been met.

#### Acute toxicity - inhalation

##### Formic acid 85%, cas-no 64-18-6

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LC50 (vapour)	4 h	9.24 mg/l		BASF test	

Harmful by inhalation.

**Skin corrosion/irritation:** Has a caustic burning effect and causes burning pain, reddening, blistering and burning sores if it comes in contact with skin.

**Serious eye damage/eye irritation:** Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

**Respiratory sensitisation or skin sensitisation:** Based on existing data, the classification criteria are deemed not to have been met.

**Germ cell mutagenicity:** Based on existing data, the classification criteria are deemed not to have been met.

**Carcinogenic properties:** Based on existing data, the classification criteria are deemed not to have been met.

**Reproductive toxicity:** Based on existing data, the classification criteria are deemed not to have been met.

**Single STOT exposure:** Based on existing data, the classification criteria are deemed not to have been met.

**Repeated STOT exposure:** Based on existing data, the classification criteria are deemed not to have been met.

**Aspiration hazard:** Based on existing data, the classification criteria are deemed not to have been met.

### 11.2. Information on other hazards

**Endocrine disrupting properties:** None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

### Formic acid 85%, cas-no 64-18-6

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Brachydanio rerio	96 h	96hLC50	130 mg/l		OECD 203	
Algae	Pseudokirchneriella subcapitata	72 h	72hEC50	1240 mg/l		OECD 201	
Acute Daphnia	Daphnia magna	48 h	48hNOEC	180 mg/l		OECD 202	
Algae	Pseudokirchneriella subcapitata	72 h	72hNOEC	< 76.8 mg/l		OECD 201	
Acute Daphnia	Daphnia magna	48 h	48hEC50	365 mg/l		OECD 202	

No effect on the environment.

### 12.2. Persistence and degradability

Expected to be biodegradable.

### 12.3. Bioaccumulative potential

No bioaccumulation expected.

### 12.4. Mobility in soil

Test data are not available.

### 12.5. Results of PBT and vPvB assessment

The product does not contain any PBT or vPvB substances.

### 12.6. Endocrine disrupting properties

None known.

### 12.7. Other adverse effects

The product affects the pH value of the local aquatic environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Do not discharge large quantities of concentrated spills and residue into drains. Avoid unnecessary release to the environment.

**Category of waste:** 06 01 06\* other acids

## SECTION 14: Transport information

### Land transport (ADR/RID)

<b>14.1. UN number or ID number:</b> 1760	<b>14.4. Packing group:</b> II
<b>14.2. UN proper shipping name:</b> CORROSIVE LIQUID, N.O.S.	<b>14.5. Environmental hazards:</b>
<b>14.3. Transport hazard class(es):</b> 8	
<b>Hazard label(s):</b> 8	
<b>Hazard identification number:</b> 80	<b>Tunnel restriction code:</b> E

### Inland water ways transport (ADN)

# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

**14.1. UN number or ID number:** 1760  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**Hazard label(s):** 8  
**Transport in tank vessels:**

**14.4. Packing group:** II  
**14.5. Environmental hazards:**

### Sea transport (IMDG)

**14.1. UN number or ID number:** 1760  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**Hazard label(s):** 8  
**EmS:** F-A, S-B

**14.4. Packing group:** II  
**14.5. Environmental hazards:** Environmental Hazardous Substance Name(s)  
**IMDG Code segregation group:** Segr. grp. 1 - Acids (SGG1 or SGG1a)

### Air transport (ICAO-TI / IATA-DGR)

**14.1. UN number or ID number:** 1760  
**14.2. UN proper shipping name:** CORROSIVE LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 8  
**Hazard label(s):** 8

**14.4. Packing group:** II  
**14.5. Environmental hazards:**

### 14.6. Special precautions for user

None.

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

## SECTION 15: Regulatory information

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

**Special Provisions:** ADR/RID. REACH (EC 1907/2006) GHS/CLP (EC NO1272/2008) GHS USA June, 2015.

### 15.2. Chemical Safety Assessment

**Other Information:** Chemical safety assessment has not been performed.

## SECTION 16: Other information

### Version history and indication of changes

Version	Revision date	Responsible	Changes
2.3.0	03/06/2022	Borregaard AS	Section 2, 3
2.2.0	29/07/2021	Borregaard AS	Section 11
2.1.0	24/10/2019	Borregaard AS	Section 8, 9, 11, 13 (JKNP)
2.0.0	23/01/2018	Borregaard AS	Section 1, 2, 3, 4, 5, 8, 11, 13 (JKNP)
1.1.0	18/04/2016	Borregaard AS	NIHA

### Vendor notes:

Information given in this safety data sheet is in accordance with our information, and to the best of our knowledge, was correct on the last revision date. Information given is intended to present guidelines for safe handling, use, processing, storage, transport, disposal and discharge; it is not intended to be a guarantee or quality specification. It is the responsibility of the recipient of this safety data sheet to ensure that information given here is read and



# Safety Data Sheet

## SoftAcid Aqua M

Replaces date: 29/07/2021

Revision date: 03/06/2022

Version: 2.3.0

understood by all who use, handle, dispose of or in any way come in contact with the product.

### List of relevant H-statements

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H331	Toxic if inhaled.
H332	Harmful if inhaled.

### List of relevant EUH-statements

EUH071	Corrosive to the respiratory tract.
--------	-------------------------------------

**Country:** GB