

# Safety data sheet

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BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 01.11.2022

Version: 1.0

Date previous version: not applicable

Previous version: none

Date / First version: 01.11.2022

Product: **Lupro-Cid®**

(ID no. 30041101/SDS\_GEN\_DE/EN)

Date of print 11.10.2025

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

### 1.1. Product identifier

**Lupro-Cid®**

UFI: QK18-H083-S00U-S7CH

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

Relevant identified uses: feed additive(s)

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-global-safety-data@basf.com

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

For the classification of the mixture the following methods have been applied: extrapolation on the concentration levels of the hazardous substances, on basis of test results and after evaluation of experts. The methodologies used are mentioned at the respective test results.

According to Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	H226 Flammable liquid and vapour.
Acute Tox. 4 (Inhalation - vapour)	H332 Harmful if inhaled.
Acute Tox. 4 (oral)	H302 Harmful if swallowed.
Skin Corr./Irrit. 1B	H314 Causes severe skin burns and eye damage.
Eye Dam./Irrit. 1	H318 Causes serious eye damage.
STOT SE 3	H335 May cause respiratory irritation.

For the classifications not written out in full in this section the full text can be found in section 16.

### 2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:



Signal Word:

Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H302 + H332	Harmful if swallowed or if inhaled

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements (Storage):

P233	Keep container tightly closed.
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Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Hazard determining component(s) for labelling: formic acid ... %, propionic acid ... %

## 2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Chemical nature

Preparation based on: formic acid ... %, propionic acid ... %, Water

Regulatory relevant ingredients

formic acid ... %

Content (W/W): >= 50 % - < 75 %

CAS Number: 64-18-6

EC-Number: 200-579-1

REACH registration number: 01-2119491174-37

INDEX-Number: 607-001-00-0

Flam. Liq. 3

Acute Tox. 3 (Inhalation - vapour)

Acute Tox. 4 (oral)

Skin Corr./Irrit. 1A

Eye Dam./Irrit. 1

H226, H331, H302, H314

EUH071

Specific concentration limit:

Skin Corr./Irrit. 1A: >= 90 %

Skin Corr./Irrit. 1B: 10 - < 90 %

Eye Dam./Irrit. 2: 2 - < 10 %

Skin Corr./Irrit. 2: 2 - < 10 %

propionic acid ... %

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Content (W/W): $\geq 25\%$ - $< 50\%$	Flam. Liq. 3
CAS Number: 79-09-4	Skin Corr./Irrit. 1B
EC-Number: 201-176-3	Eye Dam./Irrit. 1
REACH registration number: 01-2119486971-24	STOT SE 3 (irr. to respiratory syst.)
INDEX-Number: 607-089-00-0	H226, H335, H314
	<u>Specific concentration limit:</u>
	Eye Dam./Irrit. 2: $10 - < 25\%$
	Skin Corr./Irrit. 1B: $\geq 25\%$
	Skin Corr./Irrit. 2: $10 - < 25\%$
	STOT SE 3, irr. to respiratory syst.: $\geq 10\%$

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

## SECTION 4: First-Aid Measures

### 4.1. Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

On contact with eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Do not induce vomiting. Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## **SECTION 5: Fire-Fighting Measures**

### **5.1. Extinguishing media**

Suitable extinguishing media:

water spray, dry powder, alcohol-resistant foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:

water jet

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

Endangering substances: harmful vapours, carbon oxides

Advice: The substances/groups of substances mentioned can be released in case of fire. The product is combustible.

### **5.3. Advice for fire-fighters**

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Cool endangered containers with water-spray.

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## **SECTION 6: Accidental Release Measures**

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

Use personal protective clothing. Information regarding personal protective measures, see section 8. Ensure adequate ventilation. Do not breathe vapour/spray. Wear respiratory protection if ventilation is inadequate. Avoid contact with the skin, eyes and clothing. Take off immediately all contaminated clothing. Avoid all sources of ignition: heat, sparks, open flame.

### **6.2. Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

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

For small amounts: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust).

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For large amounts: Dike spillage. Cover with blanket of foam (alcohol-resistant foam). Pump off product.

For residues: Pick up with suitable absorbent material.

Dispose of absorbed material in accordance with regulations. Cleaning operations should be carried out only while wearing breathing apparatus.

#### 6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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## SECTION 7: Handling and Storage

### 7.1. Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable protective clothing and eye/face protection. Avoid contact with the skin, eyes and clothing. Keep container tightly sealed.

Protection against fire and explosion:

The product is combustible. Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharges. If exposed to fire, keep containers cool by spraying with water. Vapours may form explosive mixture with air.

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

Segregate from alkalies and alkalizing substances.

Suitable materials for containers: glass, Stainless steel 1.4401, Stainless steel 1.4301 (V2), Aluminium, High density polyethylene (HDPE), Low density polyethylene (LDPE)

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place. Protect containers from physical damage.

Storage class according to TRGS 510 (originally VCI, Germany): (3) Flammable liquids

### 7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

Components with occupational exposure limits

64-18-6: formic acid ... %

TWA value 9 mg/m<sup>3</sup> ; 5 ppm (OEL (EU))  
indicative

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Short Term Exposure Classification: (TRGS 900 (DE))

Category I: Substances for which the localized effect has an assigned exposure limit or for substances with a sensitizing effect in respiratory passages

OEL 9,5 mg/m<sup>3</sup> ; 5 ppm (TRGS 900 (DE))

Ceiling limit value/factor: 2

If the occupational exposure limit value (AGW) and the biological limit value (BGW) are complied with, there should be no risk of damage for the unborn child (see TRGS 900, Number 2.7)

79-09-4: propionic acid ... %

STEL value 62 mg/m<sup>3</sup> ; 20 ppm (OEL (EU))

indicative

TWA value 31 mg/m<sup>3</sup> ; 10 ppm (OEL (EU))

indicative

OEL 31 mg/m<sup>3</sup> ; 10 ppm (TRGS 900 (DE))

Ceiling limit value/factor: 2

If the occupational exposure limit value (AGW) and the biological limit value (BGW) are complied with, there should be no risk of damage for the unborn child (see TRGS 900, Number 2.7)

Short Term Exposure Classification: (TRGS 900 (DE))

Category I: Substances for which the localized effect has an assigned exposure limit or for substances with a sensitizing effect in respiratory passages

#### DNEL

Data refer to the lead substances

#### Components with DNEL

64-18-6: formic acid ... %

worker: Long-term exposure - systemic and local effects, Inhalation: 9,5 mg/m<sup>3</sup>

consumer: Long-term exposure - systemic and local effects, Inhalation: 3 mg/m<sup>3</sup>

79-09-4: propionic acid ... %

worker: Long-term exposure- systemic effects, Inhalation: 73 mg/m<sup>3</sup>

worker: Long-term exposure - local effects, Inhalation: 31 mg/m<sup>3</sup>

worker: Short-term exposure - local effects, Inhalation: 62 mg/m<sup>3</sup>

consumer: Long-term exposure- systemic effects, Inhalation: 18,3 mg/m<sup>3</sup>

worker: Long-term exposure- systemic effects, dermal: 20,9 mg/kg

consumer: Long-term exposure - local effects, Inhalation: 3,7 mg/m<sup>3</sup>

consumer: Short-term exposure - local effects, Inhalation: 30,8 mg/m<sup>3</sup>

consumer: Long-term exposure- systemic effects, dermal: 10,5 mg/kg

consumer: Long-term exposure- systemic effects, oral: 10,5 mg/kg

## **8.2. Exposure controls**

### Personal protective equipment

Respiratory protection:

Suitable respiratory protection for higher concentrations or long-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

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#### Hand protection:

Wear chemically resistant gloves in combination with specific activity training

Wear chemical resistant protective gloves.

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

butyl rubber (butyl) - 0.7 mm coating thickness

fluoroelastomer (FKM) - 0.7 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

#### Eye protection:

Tightly fitting safety goggles (cage goggles) (e.g. EN 166) and face shield.

#### Body protection:

Body protection must be chosen based on level of activity and exposure., acid- resp. lye-proof apron, e.g. of rubber (f.e. according to EN 14605), protection boots, f.e. of rubber (e.g. according to EN 20346), acid-proof chemical protection suit (f.e. according to EN 14605)

#### General safety and hygiene measures

Avoid contact with the skin, eyes and clothing. Do not inhale gases/vapours/aerosols. Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

## SECTION 9: Physical and Chemical Properties

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

State of matter:	liquid	
Form:	liquid	
Colour:	Colourless to reddish	
Odour:	pungent	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
Melting point:	-18,2 °C	
Boiling range:	107 - 117 °C	(DIN 53171)
Flammability:	Flammable liquid and vapour.	(derived from flash - and boiling point)
Lower explosion limit:	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	



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Upper explosion limit:

For liquids not relevant for classification and labelling.

Flash point: 55,5 °C (DIN 51755)

Auto-ignition temperature: 515 °C

Thermal decomposition: No data available.

*Information on: formic acid ... %*

*Thermal decomposition: 350 °C, > 150 kJ/kg (DSC (DIN 51007))*

*Information on: propionic acid ... %*

*Thermal decomposition: (DSC (DIN 51007))*

*No exothermic decomposition within the mentioned temperature range.  
It is not a self-decompositionable substance.*

pH value: 1,5 - 1,9  
(100 g/l)

Viscosity, kinematic: 1,61 mm<sup>2</sup>/s (20 °C) (calculated (from dynamic viscosity))

Viscosity, dynamic: approx. 1,86 mPa.s (20 °C)  
calculated

Solubility in water: fully soluble

Partitioning coefficient n-octanol/water (log Kow):  
not applicable for mixtures

*Information on: formic acid ... %*

*Partitioning coefficient n-octanol/water (log Kow): -2,1 (Directive 92/69/EEC, A.8)  
(23 °C; pH value: 7,0)*

*-1,9 (Directive 92/69/EEC, A.8)  
(23 °C; pH value: 5,0)*

*-2,3 (Directive 92/69/EEC, A.8)  
(23 °C; pH value: 9,0)*

*Information on: propionic acid ... %*

*Partitioning coefficient n-octanol/water (log Kow): 0,33 (measured)  
Literature data.*

Vapour pressure: 24 hPa (20 °C)

Density: approx. 1,15 g/cm<sup>3</sup> (20 °C)

Relative vapour density (air): > 1 (20 °C) (calculated)  
Heavier than air.

#### Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

## **9.2. Other information**

### **Information with regard to physical hazard classes**

#### Explosives

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Explosion hazard: Based on the chemical structure there is no indication of explosive properties.

#### Oxidizing properties

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.  
The product has not been tested. The statement has been derived from the properties of the individual components.

#### Corrosion to metals

In the presence of water or moisture metal corrosion cannot be excluded. - The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

#### **Other safety characteristics**

SAPT-Temperature: Study scientifically not justified.

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## **SECTION 10: Stability and Reactivity**

### **10.1. Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: In the presence of water or moisture metal corrosion cannot be excluded. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

### **10.2. Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

### **10.3. Possibility of hazardous reactions**

Reacts with alkalies. Exothermic reaction.

### **10.4. Conditions to avoid**

Avoid all sources of ignition: heat, sparks, open flame. See SDS section 7 - Handling and storage.

### **10.5. Incompatible materials**

Substances to avoid:  
alkalies

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## 10.6. Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

## SECTION 11: Toxicological Information

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

#### Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after short-term inhalation. Of moderate toxicity after single ingestion.

*Information on: formic acid ... %*

*Experimental/calculated data:*

*LD50 rat (oral): 730 mg/kg (OECD Guideline 401)*

*Information on: propionic acid ... %*

*Experimental/calculated data:*

*LD50 rat (oral): 3.455 mg/kg (similar to OECD guideline 401)*

*Information on: formic acid ... %*

*Experimental/calculated data:*

*LC50 rat (by inhalation): 7,85 mg/l 4 h (BASF-Test)*

*The vapour was tested.*

*Information on: propionic acid ... %*

*Experimental/calculated data:*

*LC50 rat (by inhalation): > 19,7 mg/l 1 h (OECD Guideline 403)*

*The vapour was tested.*

*LC0 rat (by inhalation): 24,4 mg/l 8 h (IRT)*

*Literature data. No mortality within the stated exposition time as shown in animal studies. The vapour was tested.*

*Information on: propionic acid ... %*

*Experimental/calculated data:*

*LD50 rat (dermal): 3.235 mg/kg (similar to OECD guideline 402)*

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### Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes. May cause severe damage to the eyes.

### Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

*Information on: formic acid ... %*

*Experimental/calculated data:*

*Buehler test guinea pig: Non-sensitizing. (OECD Guideline 406)*

*Information on: propionic acid ... %*

*Experimental/calculated data:*

*Guinea pig maximization test guinea pig: Non-sensitizing. (similar to OECD guideline 406)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

### Germ cell mutagenicity

Assessment of mutagenicity:

No mutagenic effect was found in various tests with bacteria and mammalian cell culture.

*Information on: formic acid ... %*

*Assessment of mutagenicity:*

*No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in an insect test.*

*Information on: propionic acid ... %*

*Assessment of mutagenicity:*

*The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in studies with mammals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.*

### Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.

*Information on: formic acid ... %*

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#### *Assessment of carcinogenicity:*

*In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: propionic acid ... %*

#### *Assessment of carcinogenicity:*

*In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.*

#### Reproductive toxicity

#### *Assessment of reproduction toxicity:*

The results of animal studies gave no indication of a fertility impairing effect.

*Information on: formic acid ... %*

#### *Assessment of reproduction toxicity:*

*The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: propionic acid ... %*

#### *Assessment of reproduction toxicity:*

*No data available. Study scientifically not justified.*

#### Developmental toxicity

#### *Assessment of teratogenicity:*

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

*Information on: formic acid ... %*

#### *Assessment of teratogenicity:*

*No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: propionic acid ... %*

#### *Assessment of teratogenicity:*

*No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

#### Specific target organ toxicity (single exposure)

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Assessment of STOT single:  
Causes temporary irritation of the respiratory tract.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:  
Based on available data, the classification criteria are not met.

*Information on: formic acid ... %*

*Assessment of repeated dose toxicity:*

*No substance-specific organotoxicity was observed after repeated administration to animals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: propionic acid ... %*

*Assessment of repeated dose toxicity:*

*No substance-specific organotoxicity was observed after repeated administration to animals. After repeated administration the prominent effect is the induction of corrosion.*

#### Aspiration hazard

No aspiration hazard expected.

#### Interactive effects

No data available.

## **11.2. Information on other hazards**

#### Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

#### Other information

Other relevant toxicity information

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The product has not been tested. The statement has been derived from the properties of the individual components.

## SECTION 12: Ecological Information

### 12.1. Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

The product gives rise to pH shifts.

*Information on: formic acid ... %*

*Toxicity to fish:*

*LC50 (96 h) 130 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 92/69/EEC, C.1, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: propionic acid ... %*

*Toxicity to fish:*

*LC50 (96 h) > 10.000 mg/l, Leuciscus idus (DIN 38412 Part 15, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: formic acid ... %*

*Aquatic invertebrates:*

*EC50 (48 h) 365 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. The statement of the toxic effect relates to the analytically determined concentration.*

*Information on: propionic acid ... %*

*Aquatic invertebrates:*

*EC50 (48 h) > 500 mg/l, Daphnia magna (Directive 84/449/EEC, C.2, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: formic acid ... %*

*Aquatic plants:*

*EC50 (72 h) 1.240 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*EC50 (72 h) 32,64 mg/l (growth rate), Scenedesmus subspicatus (DIN 38412 Part 9, static)*

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*The details of the toxic effect relate to the nominal concentration. The product will cause changes in the pH value of the test system. The result refers to an unneutralized sample.*

*Information on: propionic acid ... %*

*Aquatic plants:*

*EC50 (72 h) > 500 mg/l (biomass), Scenedesmus subspicatus (OECD Guideline 201, static)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

*Information on: formic acid ... %*

*Microorganisms/Effect on activated sludge:*

*EC10 (13 d) 72 mg/l, activated sludge, domestic, non-adapted (other, aerobic)*

*Information on: propionic acid ... %*

*Microorganisms/Effect on activated sludge:*

*EC20 (30 min) 500 - 1.040 mg/l, activated sludge, domestic (DIN EN ISO 8192, aquatic)*

*The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

Assessment of terrestrial toxicity:

No data available.

*Information on: propionic acid ... %*

*Terrestrial plants:*

*EC50 (3 d) 125,8 mg/l 188,7 mg/kg, Lactuca sativa*

*Literature data.*

## 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

Readily biodegradable (according to OECD criteria).

*Information on: formic acid ... %*

*Elimination information:*

*100 % DOC reduction (9 d) (OECD 301E/92/69/EEC, C.4-B) (aerobic, municipal sewage treatment plant effluent)*

*Information on: propionic acid ... %*

*Elimination information:*

*approx. 74 % BOD of the ThOD (30 d) (other) (aerobic, activated sludge, domestic)*

## 12.3. Bioaccumulative potential



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Assessment bioaccumulation potential:

Significant accumulation in organisms is not to be expected.

#### **12.4. Mobility in soil**

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

#### **12.5. Results of PBT and vPvB assessment**

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

#### **12.6. Endocrine disrupting properties**

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#### **12.7. Other adverse effects**

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

#### **12.8. Additional information**

Add. remarks environm. fate & pathway:

The product has not been tested. The statements on environmental fate and pathway have been derived from the properties of the individual components.

Other ecotoxicological advice:

The product has not been tested. The statement has been derived from the properties of the individual components.

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### **SECTION 13: Disposal Considerations**

#### **13.1. Waste treatment methods**

Observe national and local legal requirements.

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## SECTION 14: Transport Information

### Land transport

#### ADR

UN number or ID number: UN2920  
UN proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (FORMIC ACID, PROPIONIC ACID)

Transport hazard class(es): 8, 3  
Packing group: II  
Environmental hazards: no  
Special precautions for user: Tunnel code: D/E

#### RID

UN number or ID number: UN2920  
UN proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (FORMIC ACID, PROPIONIC ACID)

Transport hazard class(es): 8, 3  
Packing group: II  
Environmental hazards: no  
Special precautions for user: None known

### Inland waterway transport

#### ADN

UN number or ID number: UN2920  
UN proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (FORMIC ACID, PROPIONIC ACID)

Transport hazard class(es): 8, 3  
Packing group: II  
Environmental hazards: no  
Special precautions for user: None known

### Transport in inland waterway vessel

Not evaluated

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### **Sea transport**

#### IMDG

UN number or ID number: UN 2920

UN proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (FORMIC ACID, PROPIONIC ACID)

Transport hazard class(es): 8, 3

Packing group: II

Environmental hazards: no

Marine pollutant: NO

Special precautions for user: EmS: F-E; S-C

### **Air transport**

#### IATA/ICAO

UN number or ID number: UN 2920

UN proper shipping name: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (FORMIC ACID, PROPIONIC ACID)

Transport hazard class(es): 8, 3

Packing group: II

Environmental hazards: No Mark as dangerous for the environment is needed

Special precautions for user: None known

#### **14.1. UN number or ID number**

See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **14.5. Environmental hazards**

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See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **14.6. Special precautions for user**

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

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

Maritime transport in bulk is not intended.

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### **SECTION 15: Regulatory Information**

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

##### Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 40, 3, 75

Hazardous Incident Ordinance (Germany):

List entry in regulation: 1.2.5.3

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):

List entry in regulation: P5c

Classification according to 'TA-Luft' (Germany):

5.2.5: Organic gases, general guidance

Water hazard class (§8/§10 AwSV (Self-classification of the mixture according to calculation method)): (1) Weakly water polluting.

Law on the Protection of Working Youth

The specifications of the Technical Rule for Hazardous Substances (TRGS) 401 must be observed (TRGS 401: Risks resulting from skin contact - identification, assessment, measures).

German Ordinance on the Federal Immission Control – regulation on accidental releases, 12.

BImSchV–Störfall-Verordnung

#### **15.2. Chemical Safety Assessment**

Assessment of safe use has been performed for the mixture and the result is documented in section 7 and 8 of the SDS

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### **SECTION 16: Other Information**

Assessment of the hazard classes according to UN GHS criteria (most recent version)

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Flam. Liq. 3  
 Acute Tox. 4 (oral)  
 Acute Tox. 4 (Inhalation - vapour)  
 Acute Tox. 5 (dermal)  
 Skin Corr./Irrit. 1B  
 Eye Dam./Irrit. 1  
 STOT SE 3 (irritating to respiratory system)

Information on intended use: This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

Flam. Liq.	Flammable liquids
Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H302 + H332	Harmful if swallowed or if inhaled
H331	Toxic if inhaled.
H302	Harmful if swallowed.
EUH071	Corrosive to the respiratory tract.

#### Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the

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