

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Formic acid 10%

Revision: 07.10.2025 Product code: AC15.04542 Page 1 of 13

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

1.1. Product identifier

Formic acid 10%

UFI: NTGY-N2C8-700M-H6A7

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

Use of the substance/mixture

Reagents and laboratory chemicals

Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Details of the supplier of the safety data sheet

Company name: AnalytiChem Services, Unipessoal, Lda

Street: Rua de Júlio Dinis 676 7º Place: P-4050-320 Porto +351 226002917 Telephone: info@analvtichem.com F-mail: SDS service department Contact person: E-mail: SDS@analytichem.com Internet: www.analytichem.com SDS service department Responsible Department:

Supplier or manufacturer details

Company name: AnalytiChem GmbH Street: Stempelstraße 6 Place: D-47167 Duisburg Telephone: 0203/5194-0

E-mail: info@analytichem.de

Contact person: SDS service department

SDS @analytichem.com

E-mail: SDS@analytichem.com www.analytichem.de

Responsible Department: AnalytiChem:

EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem,

Telefax: 0203/5194-290

Print date: 12.10.2025

Belgium, +32 50 28 83 20

EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg,

Germany, +49 203 51 94 - 200

EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG

Mijdrecht, The Netherlands, +31 297 286848

UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester,

OX26 4XB, England, +44 1869 355 500

USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States,

+1 800-244-8378

Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X

4B6, Canada, +1 514-457-0701

Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater

North, 3153, Australia, +61 3 9729 0333

1.4. Emergency telephone

number:

+353 1 901 4670 (CHEMTREC)



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Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute Tox. 4; H332 Skin Corr. 1B; H314 Eye Dam. 1; H318

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

formic acid

Signal word: Danger

Pictograms:





Hazard statements

H314 Causes severe skin burns and eye damage.

H332 Harmful if inhaled.

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

or shower.

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.

Special labelling of certain mixtures

EUH071 Corrosive to the respiratory tract.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution



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Relevant ingredients

CAS No	Chemical name	Chemical name			
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No 1272/2008)				
64-18-6	formic acid	formic acid			
	200-579-1	607-001-00-0	01-2119491174-37		
	Flam. Liq. 3, Acute Tox EUH071	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1; H226 H331 H302 H314 H318 EUH071			

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
64-18-6	200-579-1	formic acid	10 - < 15 %
	LD50 = > 2000	0 = 7,85 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: mg/kg; oral: LD50 = 730 mg/kg	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Never give anything by mouth to an unconscious person or a person with cramps.

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. Adverse human health effects and symptoms: Gastric perforation. Call a physician immediately. Do not allow a neutralisation agent to be drunk.

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

Dyspnoea

Irritation to respiratory tract

Risk of serious damage to eyes.

Conjunctival oedema (chemosis).

strongly corrosive.

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

No data available



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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

In case of warming: Vapours can form explosive mixtures with air.

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated:

Carbon monoxide, Carbon dioxide (CO2)

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Danger of bursting container.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures

Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Do not breathe vapour/aerosol.

Read label before use.

Advice on protection against fire and explosion

In case of warming: Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Further information on handling

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Provide adequate ventilation as well as local exhaustion at critical locations. Keep in a cool, well-ventilated place.

Hints on joint storage

national regulations

Further information on storage conditions

Protect against: Light

Keep cool. Protect from sunlight.

Corrosive to metals.

Unsuitable container/equipment material: Metal

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
64-18-6	Formic acid	5	9		TWA (8 h)	

DNEL/DMEL values

CAS No	Substance				
DNEL type		Exposure route	Effect	Value	
64-18-6	formic acid				
Consumer DNEL, long-term		inhalation	local	3 mg/m³	
Worker DNEL, long-term		inhalation	local	9,5 mg/m³	



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PNEC values

CAS No	Substance			
Environmental compartment		Value		
64-18-6	formic acid			
Freshwater		2 mg/l		
Freshwater (intermittent releases)		1 mg/l		
Marine water		0,2 mg/l		
Freshwater sediment		13,4 mg/kg		
Marine sediment		1,34 mg/kg		
Micro-organisms in sewage treatment plants (STP)		7,2 mg/l		
Soil		1,5 mg/kg		

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Individual protection measures, such as personal protective equipment

Eye/face protection

Suitable eye protection: goggles.

Face protection shield

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation KCL 720 Camapren®

Suitable material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with permanent contact: >480 min

By short-term hand contact

Trade name/designation KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): >250 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Wear suitable protective clothing.

Material, acid-resistant



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Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not allow to enter into surface water or drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: colourless
Odour: stinging

Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

not applicable Flammability: No data available Lower explosion limits: No data available Upper explosion limits: No data available Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: 1.5 pH-Value: No data available Viscosity / kinematic: Water solubility: very soluble

Solubility in other solvents
No data available

Partition coefficient n-octanol/water:

Vapour pressure:

No data available

No data available

(at 20 °C)

Vapour pressure: No data available

(at 50 °C)

Density: 1,0224 g/cm³
Bulk density: No data available
Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

In case of warming: Vapours can form explosive mixtures with air.

Sustained combustibility: No data available

Self-ignition temperature

Solid: not applicable
Gas: not applicable

Oxidizing properties Not oxidising.

Other safety characteristics

Evaporation rate:

Solvent separation test:

Solvent content:

Solid content:

No data available

No data available

No data available

No data available



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Sublimation point:No data availableSoftening point:No data availablePour point:No data available

No data available:

Viscosity / dynamic:

Flow time:

No data available

No data available

Further Information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

In case of warming: Vapours can form explosive mixtures with air.

10.2. Chemical stability

slow decomposition Protect against:

Light Heat

10.3. Possibility of hazardous reactions

Amines

Alkali (lye)

Oxidising agent

Aluminium

Hydrogen peroxide

Nitric acid

for formic acid: explosion hazard when in contact with: hydrogen peroxide, furfuryl alcohol, sodium hypochlorite (heat), nickel catalysts, nitromethane. The substance may react dangerously with: bases, aluminium, oxidizing agents, nitric acid, sulfuric acid, alkali hydroxides (conc.), alkaline earth hydroxides (conc.), heat, palladium charcoal (hydrogen generation), phosphorus pentoxide, thallium trinitrate trihydrate.

10.4. Conditions to avoid

Light

Heat

10.5. Incompatible materials

Corrosive to metals.

10.6. Hazardous decomposition products

No data available

Further information

No data available

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 5,000 mg/l



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CAS No	Chemical name							
	Exposure route	Dose		Species	Source	Method		
64-18-6	formic acid							
	oral	LD50 mg/kg	730	Rat	Study report (1985)	OECD Guideline 401		
	dermal	LD50 mg/kg	> 2000	Rat	Study report (2007)	OECD Guideline 402		
	inhalation (4 h) vapour	LC50	7,85 mg/l	Rat	Study report (1980)	OECD Guideline 403		
	inhalation dust/mist	ATE	0,5 mg/l					

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Corrosive to the respiratory tract.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

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

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

gastric perforation

Pulmonary oedema, Conjunctival oedema (chemosis)., Risk of serious damage to eyes.

Resorption (oral) Resorption (by inhalation)

Further information

Cough

Dyspnoea

SECTION 12: Ecological information

12.1. Toxicity

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



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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
64-18-6	formic acid						
	Acute fish toxicity	LC50	130 mg/l	96 h	Danio rerio	Study report (2005)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	1240		Pseudokirchneriella subcapitata	Study report (2005)	OECD Guideline 201
	Acute crustacea toxicity	EC50	365 mg/l	48 h	Daphnia magna	Study report (2005)	OECD Guideline 202
	Crustacea toxicity	NOEC mg/l	>= 100	21 d	Daphnia magna	Study report (2007)	OECD Guideline 211

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

Does not significantly accumulate in organisms.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
64-18-6	formic acid	-2,1

BCF

CAS No	Chemical name	BCF	Species	Source
64-18-6	formic acid	3,16		Other company data (

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Do not empty into drains.

Further information

Discharge into the environment must be avoided.

Harmful effect due to pH shift.

Forms corrosive mixtures with water even if diluted.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not empty into drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.



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SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 3412
14.2. UN proper shipping name:	FORMIC ACID

8 14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: 8 C3 Classification code: 1 L Limited quantity: Excepted quantity: E2 Transport category: 2 80 Hazard No: Ε Tunnel restriction code:

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 3412
14.2. UN proper shipping name:	FORMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Classification code:C3Limited quantity:1 LExcepted quantity:E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 3412
14.2. UN proper shipping name:	FORMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Special Provisions:-Limited quantity:1 LExcepted quantity:E2EmS:F-A, S-B

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 3412
14.2. UN proper shipping name:	FORMIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIHazard label:8Limited quantity Passenger:0.5 LPassenger LQ:Y840Excepted quantity:E2

IATA-packing instructions - Passenger:851IATA-max. quantity - Passenger:1 LIATA-packing instructions - Cargo:855IATA-max. quantity - Cargo:30 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Warning: Combustible liquid. strongly corrosive.



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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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Information according to Directive

Not subject to 2012/18/EU (SEVESO III)

2012/18/EU (SEVESO III):

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,15.

Abbreviations and acronyms

Flam. Lig. 3: Flammable liquids, hazard category 3

Acute Tox. 3: Acute toxicity, hazard category 3

Skin Corr. 1A: Skin corrosion, sub-category 1A

Eye Dam. 1: Serious eye damage, hazard category 1

ADR: Accord européen sur le transport des marchandises dangereuses par Route

(European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized 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 LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method

Relevant H and EUH statements (number and full text)

Flammable	liquid and	vapour.
	-lammable	Flammable liquid and

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage.

H331 Toxic if inhaled. H332 Harmful if inhaled.

EUH071 Corrosive to the respiratory tract.



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Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)