

Formic acid 85%

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Revision date: :

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Product name : Formic acid 85%
EC no : 200-579-1
CAS No : 64-18-6
Product code : 424455

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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2031BH Haarlem - Netherlands
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info@duchefa.com - www.duchefa.com

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
UNITED KINGDOM	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	0870 243 2241

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1B H314

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

C; R34

Full text of R-phrases: see section 16

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Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS05

Signal word (CLP)

: Danger

Hazardous ingredients

: formic acid ... %

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage

Precautionary statements (CLP)

: P262 - Do not get in eyes, on skin, or on clothing

P280 - Wear protective gloves, protective clothing, eye protection, face shield

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

P305 - IF IN EYES:

P351 - Rinse cautiously with water for several minutes

P310 - Immediately call a POISON CENTER or doctor/physician

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
formic acid ... %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0	85	C; R35

Name	Product identifier	Specific concentration limits
formic acid ... %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0	(2 ≤ C < 10) Xi; R36/38 (10 ≤ C < 90) C; R34 (C ≥ 90) C; R35

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
formic acid ... %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0	85	Skin Corr. 1A, H314

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Name	Product identifier	Specific concentration limits
formic acid ... %	(CAS No) 64-18-6 (EC no) 200-579-1 (EC index no) 607-001-00-0	(2 ≤ C < 10) Skin Irrit. 2, H315 (2 ≤ C < 10) Eye Irrit. 2, H319 (10 ≤ C < 90) Skin Corr. 1B, H314 (C ≥ 90) Skin Corr. 1A, H314

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. Ensure adequate flushing of eyes by separating eyelids with the fingers.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. Drink plenty of water.

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

Symptoms/injuries	: Causes severe skin burns and eye damage. May be irritating to the mucous membranes and to the respiratory system.
Symptoms/injuries after inhalation	: Vapors are more irritating to mucous membranes than acetic acid. Pulmonary edema may occur.
Symptoms/injuries after skin contact	: Irritating to the skin and mucous membranes. Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Irritating to eyes. Lacrimation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing Vapours.

Hygiene measures : Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. Keep away from sources of ignition - No smoking.

Storage conditions : Keep container closed when not in use. Keep only in the original container in a cool, well-ventilated place. Under confinement on exposure to temperature rise: pressure rise and possible bursting of container. Avoid ignition sources.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature : 15 - 25 °C

Packaging materials : glass. Stainless steel. Plastic materials. Coated steel.

7.3. Specific end use(s)

Pharmaceutical industry.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CAS no. : 64-18-6; MAK

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

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Hand protection	: Wear suitable gloves resistant to chemical penetration. Neoprene protective gloves. Chemical resistant gloves (according to European standard NF EN 374 or equivalent).
Eye protection	: Protective goggles.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection.
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Pungent.
Odour threshold	: No data available
pH	: 2,2
pH solution	: 10 g/l 20 ° C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 106 °C
Flash point	: 65 °C
Auto-ignition temperature	: 500 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable
Vapour pressure	: 28 mbar
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 20 ° C 1,059 / 1,195 g/cm ³ 25% / 85%
Solubility	: completely miscible with water.
Log Pow	: -0,54
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 1,4 mPa.s
Explosive properties	: Product is not explosive. May form flammable/explosive vapour-air mixture.
Oxidising properties	: No data available

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Explosive limits : 14 - 47,6 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : Carbon monoxide.

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Reaction with metals causes release of hydrogen. Alkali metals. Alkaline earth metals. Iron. zinc. Violent exothermic reaction with (some) bases. and amines.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong bases. Alkaline earth metals. Alkali metals. Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

formic acid ... % (64-18-6)	
LD50 oral rat	1210 - 1830 mg/kg
LC50 inhalation rat	7,4 mg/l/4h

Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 2,2
Serious eye damage/irritation	: Serious eye damage, category 1, implicit pH: 2,2
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met

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Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Formic acid 85% (64-18-6)	
LC50 fishes 1	46 - 100 mg/l 96 h.
EC50 Daphnia 1	34,2 mg/l 48 h.
EC50 other aquatic organisms 1	26,9 mg/l EC50 72h Algae [mg/l]
EC50 other aquatic organisms 2	46,7 mg/l 17 h.

12.2. Persistence and degradability

Formic acid 85% (64-18-6)	
Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	86 g O ₂ /g substance
Chemical oxygen demand (COD)	348 g O ₂ /g substance
Biodegradation	> 90 %

12.3. Bioaccumulative potential

Formic acid 85% (64-18-6)	
Log Pow	-0,54
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of this material and its container to hazardous or special waste collection point.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1779

UN-No. (IMDG) :

UN-No.(IATA) : 1779

UN-No.(ADN) :

UN-No. (RID) :

14.2. UN proper shipping name

Proper Shipping Name (ADR) : FORMIC ACID

Proper Shipping Name (IMDG) :

Proper Shipping Name (IATA) :

Proper Shipping Name (ADN) :

Proper Shipping Name (RID) :

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8

Danger labels (ADR) : 8



IMDG

Transport hazard class(es) (IMDG) :

IATA

Transport hazard class(es) (IATA) : 8

ADN

Transport hazard class(es) (ADN) :

RID

Transport hazard class(es) (RID) :

14.4. Packing group

Packing group (ADR) : II

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Packing group (IMDG) :
Packing group (IATA) :
Packing group (ADN) :
Packing group (RID) :

14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR) : CF1
Limited quantities (ADR) : 1L
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T7
Portable tank and bulk container special provisions (ADR) : TP2
Tank code (ADR) : L4BN
Vehicle for tank carriage : FL
Transport category (ADR) : 2
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 80
Orange plates : 
Tunnel restriction code (ADR) : D/E
EAC code : •2W
APP code : A(fl)

14.6.2. Transport by sea

14.6.3. Air transport

14.6.4. Inland waterway transport

Carriage prohibited (ADN) : No
Not subject to ADN : No

14.6.5. Rail transport

Carriage prohibited (RID) : No

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions

Acidum formicum 85% is not on the REACH Candidate List

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. REACH Disclaimer:
This information is based on current knowledge. Consistency of data in the SDS with CSR is considered, as far as the information is available at the time of compilation (cfr Revision date and Version number).

Full text of R-, H- and EUH-phrases:

Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H314	Causes severe skin burns and eye damage
R34	Causes burns
R35	Causes severe burns
C	Corrosive

SDS EU (REACH Annex II) Duchefa

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product