

SAFETY DATA SHEET



Tradename: ETHYL FORMATE

Print Date: 6. January 2021

Version: 2.2, revision date: 02.01.2021

Replaced version: 2.1 created on: 05.07.2019

Region: GB

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

1.1. Product identifier

Trade name: ETHYL FORMATE
Substance name: ETHYL FORMATE
CAS Number: 109-94-4
CE Number: 203-721-0
REACH Registration number: Exempt from registration (imported/manufactured < 1 ton/year)

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

Relevant identified uses

Raw material for the manufacture of fragrances and/or flavourings.

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company

SysKem Chemie GmbH
Brucknerweg 26
D-42289 Wuppertal

Telephone +49 (0) 202/30999510
Telefax +49 (0) 202/87088403
E-mail address info@syskem.de

Prepared by / E-mail address of person responsible for the SDS

info@syskem.de

1.4. Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg, Tel. +49 761 19240.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Flammable Liquids - Category 2 - H225
Acute Toxicity - Category 4 (oral) - H302
Acute Toxicity - Category 4 (inhalation) - H332
Eye Irritant - Category 2 - H319
Specific target organ toxicity following single exposure - Category 3 (irritation) - H335

Full text of H statements : see section 16

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Danger

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Hazard statements (CLP)

H225 – Highly flammable liquid and vapour.
H302 – Harmful if swallowed.
H319 – Causes serious eye irritation.
H332 – Harmful if inhaled.
H335 – May cause respiratory irritation.

Precautionary statements (CLP)

P210 – Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
P233 – Keep container tightly closed.
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312+P330 – IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P304+P340+P312 – IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338+P337+P313 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
P370+P378 – In case of fire: Use carbon dioxide, foam, dry powder or water spray for extinction.

2.3. Other hazards

No Information available

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name: ETHYL FORMATE
CAS number: 109-94-4
EC number: 203-721-0

Hazardous constituents:

Chemical Name	% (w/w)	CAS No EC No	Classification according to Regulation 1272/2008
ETHYL FORMATE	≥50	109-94-4 203-721-0	Flam. Liq. 2 - H225 Acute Tox. 4 (oral) – H302 Acute Tox. 4 (inhalation) – H332 Eye Irrit. 2 – H319 STOT SE 3 (irr.) - H335

See the full text of the hazard statements in section 16.

3.2. Mixtures

Not applicable.

SECTION 4: First aid measures

4.1. Description of first aid measures

Ingestion:

Rinse mouth with water.
Obtain medical advice.
Keep at rest. Do not induce vomiting.

Eye contact:

In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical advice.



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Inhalation:

Remove person to fresh air and keep at rest.
Seek immediate medical advice.

Skin contact:

Take off immediately all contaminated clothing.
Thoroughly wash affected skin with soap and water.
Seek medical attention if symptoms persist.

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

No information available.

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

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray, carbon dioxide, dry chemical powder or appropriate foam.

Unsuitable extinguishing media

For safety reasons do not use full water jet.

5.2. Special hazards arising from the substance or mixture

Known or Anticipated Hazardous Products of Combustion: Emits toxic fumes under fire conditions.

5.3. Advice for firefighters

High temperatures can lead to high pressures inside closed containers.
Avoid inhalation of vapors that are created. Use appropriate respiratory protection.
Do not allow spillage of fire to be poured into drains or watercourses.
Wear self-contained breathing apparatus and protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate surrounding areas. Ensure adequate ventilation. Keep unnecessary and unprotected personnel from entering.
Do not breathe vapor/spray. Avoid contact with skin and eyes. Information regarding personal protective measures: see section 8.

6.2. Environmental precautions

To avoid possible contamination of the environment, do not discharge into any drains, surface waters or groundwaters.

6.3. Methods and material for containment and cleaning up

Cover with an inert, inorganic, non-combustible absorbent material (e.g. dry-lime, sand, soda ash).
Place in covered containers using non-sparking tools and transport outdoors.
Avoid open flames or sources of ignition (e.g. pilot lights on gas hot water heater).
Ventilate area and wash spill site after material pickup is complete

6.4. Reference to other sections

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



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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not store or handle this material near food or drinking water. Do not smoke.
Avoid contact with the eyes, skin and clothing. Wear protective clothing and use glasses.
Observe the rules of safety and hygiene at work.
Keep in the original container or an alternative made from a compatible material.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed and preferably full containers in a cool, dry and ventilated area, protected from light.
Keep away from sources of ignition (e.g. hot surfaces, sparks, flame and static discharges).
Keep away from incompatible materials (see section 10).

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Components with occupational exposure limits:
None known.

8.2. Exposure controls

Appropriate engineering controls:

Measures should be taken to prevent materials from being splashed into the body.
Provide adequate ventilation, according to the conditions of use. Use a mechanical exhaust if required.

Eye/Face protection:

Chemical safety goggles are recommended. Wash contaminated goggles before reuse.

Hand Protection:

Chemical-resistant gloves are recommended. Wash contaminated gloves before reuse.

Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved.

Respiratory Protection:

In case of insufficient ventilation, use suitable respiratory equipment.

Environmental exposure controls:

Emissions from ventilation or process equipment should be checked to ensure they comply with environmental protection legislation.
In some cases, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance:	Liquid
Colour:	Conforms to standard
Odour:	Conforms to standard
Odour threshold:	Not determined
pH:	Not determined
Melting point/freezing point:	-80
Boiling point/boiling range:	53 - 55
Flash point:	-19 °C
Evaporation rate:	Not determined
Flammability:	Not determined
Lower flammability/Explosive limit:	Not determined
Upper flammability/Explosive limit:	Not determined
Vapour pressure:	265,0 mbar (20 °C)
Vapour Density:	Not determined
Density:	0,918–0,925 g/mL (20 °C)
Relative density:	0,918–0,925 (20 °C)
Water solubility:	110 g/L (18°C)
Solubility in other solvents:	SOLUBLE IN ETHANOL. SOLUBLE IN ETHANOL 50% 1:5. SOLUBLE IN ETHANOL 80% 1:1
Partition coefficient n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity, dynamic:	Not determined
Viscosity, kinematic:	Not determined
Explosive properties:	Not determined
Oxidising properties:	Not determined

9.2. Other information

No information available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

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

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

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

10.4. Conditions to avoid

Excessive heat, flame or other ignition sources.

10.5. Incompatible materials

Avoid contact with strong acids and bases and oxidizing agents.

10.6. Hazardous decomposition products

During combustion may form carbon monoxide and unidentified organic compounds.
Hazardous combustion products: see section 5.



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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed. Harmful if inhaled.

Skin corrosion/irritation

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

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

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

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

STOT-single exposure

May cause respiratory irritation.

STOT-repeated exposure

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

Aspiration hazard

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

SECTION 12: Ecological information

12.1 Toxicity

Assessment:

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

Experimental/calculated data:

No information available.

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

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12.6 Other adverse effects

See also sections 6, 7, 13 and 15
Do not allow to get into waste water or waterways.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with national and local environmental regulations.

SECTION 14: Transport information

14.1 UN number

UN number: UN 1190

14.2 UN proper shipping name

Shipping name: ETHYL FORMATE

14.3 Transport hazard class(es)

Transport class: 3

14.4 Packing group

Packing group: II

14.5 Environmental hazards

Environmentally hazardous: No
Marine pollutant: No

14.6 Special precautions for user

None known

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

No information available.

SECTION 15: Regulatory information

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

No information available

15.2 Chemical Safety Assessment

No information available



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SECTION 16: Other information

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

2016 - ATP 9 2016/1179.

Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.

Full text of the R-phrases, hazard statements and precautionary statements mentioned in section 3:

H225 – Highly flammable liquid and vapour.

H302 – Harmful if swallowed.

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

H335 – May cause respiratory irritation.

Abbreviations and acronyms:

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

ICAO: International Civil Aviation Organisation

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 Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

ISO: International Organisation for Standardisation

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect concentration

LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

NOEL: No observed effect level

NOEC: No observed effect concentration

LOEC: Lowest observed effect concentration

BCF: Bio concentration factor

EC50: Effect concentration, 50 percent