

Safety Data Sheet

Luprosil®

Revision date : 2025/09/30

Version: 10.0

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(30041113/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Luprosil®

Recommended use of the chemical and restriction on use

Recommended use*: feed additive(s)

* The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

Details of the supplier of the safety data sheet

Company:

BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Chemical family: No data available.

Synonyms: Propionic Acid. Use: industrial chemical, feed additive

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

| | | |
|------------|--------------------------------------|--|
| Flam. Liq. | 3 | Flammable liquids |
| Skin Corr. | 1B | Skin corrosion |
| Eye Dam. | 1 | Serious eye damage |
| STOT SE | 3 (irritating to respiratory system) | Specific target organ toxicity — single exposure |

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Label elements

Pictogram:



Signal Word:
Danger

Hazard Statement:

| | |
|------|--|
| H226 | Flammable liquid and vapour. |
| H335 | May cause respiratory irritation. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary Statements (Prevention):

| | |
|------|--|
| P280 | Wear protective gloves, protective clothing and eye protection or face protection. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P243 | Take action to prevent static discharges. |
| P260 | Do not breathe mist or vapour or spray. |
| P241 | Use explosion-proof electrical, ventilating and lighting equipment. |
| P264 | Wash contaminated body parts thoroughly after handling. |
| P240 | Ground and bond container and receiving equipment. |
| P242 | Use non-sparking tools. |

Precautionary Statements (Response):

| | |
|--------------------|--|
| 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 or physician. |
| P303 + P361 + P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. |
| P304 + P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P301 + P330 + P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P363 | Wash contaminated clothing before reuse. |
| P370 + P378 | In case of fire: Use water spray, dry powder, foam or carbon dioxide for extinction. |

Precautionary Statements (Storage):

| | |
|-------------|--|
| P233 | Keep container tightly closed. |
| P403 + P235 | Store in a well-ventilated place. Keep cool. |
| P405 | Store locked up. |

Precautionary Statements (Disposal):

| | |
|------|---|
| P501 | Dispose of contents/container in accordance with local regulations. |
|------|---|

Hazards not otherwise classified

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

propionic acid

CAS Number: 79-09-4
Content (W/W): ≥ 99.5 - $\leq 100.0\%$
Synonym: Propanoic acid; Propionic acid

Acetic acid

CAS Number: 64-19-7
Content (W/W): ≥ 0.1 - $\leq 1.0\%$
Synonym: Acetic acid; Glacial acetic acid

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:

Wash affected areas with water while removing contaminated clothing. Remove contaminated clothing. Immediate medical attention required. Wash contaminated clothing before reuse.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:

Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

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.

Information on: propionic acid

Symptoms: Overexposure may cause:, asthma, coughing

Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

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Note to physician

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters

Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

Impact Sensitivity:

Remarks: Based on the chemical structure there is no shock-sensitivity.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: wear a tightly closed chemical protection suit and a self-contained breathing apparatus. Wear acid-resistant boots.

Environmental precautions

Substance/product is RCRA hazardous due to its properties.

Methods and material for containment and cleaning up

Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Change clothes immediately after contamination.

Protection against fire and explosion:

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Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

Conditions for safe storage, including any incompatibilities

Segregate from alkalies and alkalizing substances.

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

| | | |
|----------------|-------------|--|
| Acetic acid | ACGIH, US: | STEL value 15 ppm ; |
| | ACGIH, US: | TWA value 10 ppm ; |
| | OSHA Z1: | PEL 10 ppm 25 mg/m3 ; |
| | NIO ID, US: | IDLH 50 ppm ; IDLH values based on the 1994 Revised Criteria |
| | NIO ID, US: | LEL 4.0 % ; |
| propionic acid | ACGIH, US: | TWA value 10 ppm ; |

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Wear a NIOSH-certified (or equivalent) acid gas/organic vapour respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:

Chemical resistant protective gloves should be worn to prevent all skin contact., Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Tightly fitting safety goggles (chemical goggles) and face shield.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to prevent contact. Avoid contact with skin and eyes. Take off immediately all contaminated clothing.

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9. Physical and Chemical Properties

| | | |
|---|---|----------------------------|
| Physical state: | liquid | |
| Form: | liquid | |
| Odour: | pungent odour | |
| Odour threshold: | not determined | |
| Colour: | colourless | |
| pH value: | 2.5 | |
| | (100 g/l, 20 °C) | |
| | Literature data. | |
| Melting point: | -20 °C | |
| Freezing point: | No data available. | |
| Boiling point: | 140.7 - 141.6 °C | |
| Sublimation point: | No applicable information available. | |
| Flash point: | 53 °C | (ISO 13736, closed cup) |
| Flammability: | Flammable liquid and vapour. | (derived from flash point) |
| Lower explosion limit: | 2.1 %(V) (46.9 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit. | |
| Upper explosion limit: | 12.0 %(V) | |
| Heat of Combustion: | 20.63 kJ/g | |
| Autoignition: | 485 °C | (DIN 51794) |
| SADT: | Not a substance/mixture liable to self-decomposition according to GHS. | |
| Vapour pressure: | 5 mbar (20 °C) | |
| Density: | 0.993 g/cm ³ (20 °C) Literature data. 0.957 g/cm ³ (55 °C) Literature data. 0.9990 g/cm ³ (15 °C) 0.9610 g/cm ³ (50 °C) | |
| Relative density: | No data available. | |
| Relative vapour density: | > 1 (20 °C) Heavier than air. | (estimated) |
| Partitioning coefficient n-octanol/water (log Pow): | 0.25 (25 °C) 0.33 | (Calculation Hansch/Leo) |

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| | |
|----------------------------|--|
| Self-ignition temperature: | Based on its structural properties the product is not classified as self-igniting. |
| Thermal decomposition: | not determined |
| Viscosity, dynamic: | 1.102 mPa.s (20 °C) Literature data. |
| Viscosity, kinematic: | No data available. |
| Solubility in water: | (20 °C) miscible |
| Solubility (quantitative): | No data available. |
| Solubility (qualitative): | No data available. |
| Molecular weight: | 74.08 g/mol |
| Evaporation rate: | Value can be approximated from Henry's Law Constant or vapor pressure. |

Particle characteristics

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

10. Stability and Reactivity

Reactivity

No applicable information available.

Corrosion to metals:

Corrosive effects to metal are not anticipated. In the presence of water or moisture metal corrosion cannot be excluded.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

| | | |
|-------------------------------|----------|--|
| Formation of flammable gases: | Remarks: | Forms no flammable gases in the presence of water. |
|-------------------------------|----------|--|

Chemical stability

The product is chemically stable.

Possibility of hazardous reactions

Reacts with strong alkalies. Exothermic reaction.

Conditions to avoid

No conditions to avoid anticipated.

Incompatible materials

bases

Hazardous decomposition products

Decomposition products:

No hazardous decomposition products known.

Thermal decomposition:

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not determined

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion. Virtually nontoxic by inhalation. Of low toxicity after short-term skin contact. Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard.

Oral

Type of value: LD50
Species: rat (male/female)
Value: 3,455 mg/kg (similar to OECD guideline 401)

Inhalation

Type of value: LC50
Species: rat (male/female)
Value: > 19.7 mg/l (OECD Guideline 403)
Exposure time: 1 h
The vapour was tested.

Type of value: LC0
Species: rat (male/female)
Value: 24.4 mg/l (IRT)
Exposure time: 8 h
The vapour was tested.
Literature data. No mortality within the stated exposition time as shown in animal studies.

Dermal

Type of value: LD50
Species: rat (female)
Value: 3,235 mg/kg (similar to OECD guideline 402)

Assessment other acute effects

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

Irritation / corrosion

Assessment of irritating effects: Corrosive! Damages skin and eyes.

Skin

Species: rabbit
Result: Corrosive.
Method: BASF-Test

Eye

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Species: rabbit
Result: irreversible damage
Method: Draize test
Literature data.

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Guinea pig maximization test

Species: guinea pig

Result: Non-sensitizing.

Method: 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.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

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.

Genetic toxicity

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.

Reproductive toxicity

Assessment of reproduction toxicity: No data available. Study scientifically not justified.

Teratogenicity

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.

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

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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.

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.

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.

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.

Chronic toxicity to fish

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

Assessment of terrestrial toxicity

Toxic effects have been observed in studies with terrestrial plants.

Soil living organisms

Toxicity to soil dwelling organisms:

No data available.

Toxicity to terrestrial plants

EC50 (3 d) 125.8 mg/l 188.7 mg/kg, *Lactuca sativa*

Literature data.

Other terrestrial non-mammals

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192 aquatic

activated sludge, domestic/EC20 (30 min): 500 - 1,040 mg/l

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

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria). Literature data.

Elimination information

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

Assessment of stability in water

According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)

The product has not been tested. The statement has been derived from the structure of the product.

Bioaccumulative potential

Assessment bioaccumulation potential

Significant accumulation in organisms is not to be expected.

Bioaccumulation potential

Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

Sum parameter

Chemical oxygen demand (COD): 1,520 mg/g

Biochemical oxygen demand (BOD) Incubation period 5 d: 1,300 mg/g

13. Disposal considerations

Waste disposal of substance:

Do not discharge into waterways or sewer systems without proper authorization. Dispose of in a RCRA-licensed facility. Dispose of in accordance with national, state and local regulations.

Container disposal:

Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

RCRA: D001

14. Transport Information

Land transport

USDOT

Hazard class: 8

Packing group: II

ID number: UN 3463

Hazard label: 8, 3

Proper shipping name: PROPIONIC ACID

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Sea transport

IMDG
Hazard class: 8
Packing group: II
ID number: UN 3463
Hazard label: 8, 3
Marine pollutant: NO
Proper shipping name: PROPIONIC ACID

Air transport

IATA/ICAO
Hazard class: 8
Packing group: II
ID number: UN 3463
Hazard label: 8, 3
Proper shipping name: PROPIONIC ACID

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

Feed TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ

5000 LBS

CAS Number

79-09-4

Chemical name

propionic acid

State regulations

State RTK

NJ

CAS Number

79-09-4

Chemical name

propionic acid

NFPA Hazard codes:

Health: 3 Fire: 2 Reactivity: 0 Special:

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

| | | |
|------------|--------------------------------------|--|
| Skin Corr. | 1B | Skin corrosion |
| Acute Tox. | 5 (oral) | Acute toxicity |
| Flam. Liq. | 3 | Flammable liquids |
| Eye Dam. | 1 | Serious eye damage |
| Acute Tox. | 5 (dermal) | Acute toxicity |
| STOT SE | 3 (irritating to respiratory system) | Specific target organ toxicity — single exposure |

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16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2025/09/30

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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