We create chemistry

Safety Data Sheet
Amasil® 85

1. Identification

Product identifier used on the label

Amasil® 85

Recommended use of the chemical and restriction on use

Recommended use*: feed additive(s)
Unsuitable for use: Not intended for sale to or use by the general public.

* 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

Molecular formula: CH(2)O(2)
Chemical family: carboxylic acid

2. Hazards Identification

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

Classification of the product

Flam. Liq.	4	Flammable liquids
Acute Tox.	3 (Inhalation - vapour)	Acute toxicity
Acute Tox.	4 (oral)	Acute toxicity
Skin Corr.	1B	Skin corrosion
Eye Dam.	1	Serious eye damage

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H227	Combustible liquid.
H331	Toxic if inhaled.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.

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.
P260	Do not breathe mist or vapour or spray.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P270	Do not eat, drink or smoke when using this product.
P264	Wash contaminated body parts thoroughly after handling.

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

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
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.

Labeling of special preparations (GHS):
Corrosive to the respiratory tract.

3. Composition / Information on Ingredients

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

Formic Acid
CAS Number: 64-18-6
Content (W/W): >= 85.0 - <= 86.0%
Synonym: No data available.

4. First-Aid Measures

Description of first aid measures

General advice:
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.

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

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

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

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: Formic Acid
Symptoms: Overexposure may cause:, vomiting, aspiration pneumonia, circulatory collapse, death, acidosis, abdominal cramps, dyspnea, hypotension (low blood pressure), nausea, diarrhea, salivation
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Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

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, alcohol-resistant foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:
carbon monoxide,
The substances/groups of substances mentioned can be released if the product is involved in a fire.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear self-contained breathing apparatus and chemical-protective clothing.

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

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Breathing protection required. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not empty into drains.

Methods and material for containment and cleaning up

For large amounts: Pump off product.
For residues: Pick up with suitable absorbent material (e.g. acid binder). Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Sealed containers should be protected against heat as this results in pressure build-up.

Protection against fire and explosion:
Sources of ignition should be kept well clear.

Conditions for safe storage, including any incompatibilities

Segregate from alkalies and alkalizing substances.

Suitable materials for containers: Stainless steel 1.4571, Stainless steel 1.4404, High density polyethylene (HDPE), Low density polyethylene (LDPE), glass
Unsuitable materials for containers: Paper/Fibreboard, Carbon steel (Iron)

Storage stability:
Storage temperature: < 30 °C
Storage duration: <= 36 Months
From the data on storage duration in this safety data sheet no agreed statement regarding the warrantee of application properties can be deduced.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

Formic Acid	ACGIH, US:	TWA value 5 ppm ;
	OSHA Z1:	PEL 5 ppm 9 mg/m3 ;
	NIO ID, US:	IDLH 30 ppm ; IDLH values based on the 1994 Revised Criteria
	NIO ID, US:	LEL 18 % ;

Advice on system design:
Provide adequate exhaust ventilation to control work place concentrations.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) 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., Suitable materials may include, chloroprene rubber (Neoprene), butyl rubber, nitrile rubber (Buna N), Protective glove selection must be based on the user's assessment of the workplace hazards., Consult with glove manufacturer for testing data.

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:
Contact with eyes and skin must be avoided. Avoid inhalation of vapour. Avoid contact with skin and eyes. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Hands and/or face should be washed before breaks and at the end of the shift. When using, do not eat, drink or smoke.

9. Physical and Chemical Properties

Physical state:	liquid	
Form:	liquid	
Odour:	of formic acid, pungent odour	
Odour threshold:	not determined	
Colour:	colourless to yellow	
pH value:	2.2 (10 g/l, 20 °C)	
Melting point:	-13 °C	
Freezing point:	No data available.	
Boiling point:	107.3 °C	
Sublimation point:	No applicable information available.	
Flash point:	65 °C Refers to Formic acid 85%	(DIN 51755)
Information on: Formic Acid		
Flash point:	49.5 °C	(Directive 92/69/EEC, A.9, closed cup)

Flammability:	Combustible liquid.	(derived from flash - and boiling point)
Lower explosion limit:	14.9 %(V) 14.9 %(V) (57 °C)	
Upper explosion limit:	47.6 %(V)	
Autoignition:	500 °C	(DIN 51794)
SADT:	Substance/mixture liable to self-decomposition according to GHS.	
Vapour pressure:	24.2 hPa (20 °C) 112.5 hPa (50 °C)	
Density:	1.195 g/cm3 (20 °C) 1.20 g/cm3 (15 °C) 1.173 g/cm3 (40 °C) 1.161 g/cm3 (50 °C) 1.15 g/cm3 (55 °C)	
Relative density:	No data available.	
Relative vapour density:	Water content greater than 10%.	
Partitioning coefficient n-octanol/water (log Pow):	-1.9 (23 °C)	
Thermal decomposition:	No data available.	
Viscosity, dynamic:	1.70 mPa.s (20 °C) 0.92 mPa.s (55 °C)	
Viscosity, kinematic:	1.42 mm2/s (20 °C)	

	0.8 mm2/s (55 °C)
Solubility in water:	(20 °C, 1,013.25 hPa) miscible
Miscibility with water:	miscible in all proportions
Solubility (quantitative):	No data available.
Solubility (qualitative):	miscible solvent(s): organic solvents,
Molecular weight:	46.03 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 hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:
No corrosive effect on metal.

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

Chemical stability
Slow decomposition possible.

Possibility of hazardous reactions
Reacts with alkalies. Reacts with amines. Exothermic reaction.

Conditions to avoid
Temperature: > 30 degrees Celsius

Incompatible materials
bases, non-coated metals, base metals

Hazardous decomposition products

Decomposition products:
Hazardous decomposition products: carbon monoxide

Thermal decomposition:
No data available.

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

Oral
Type of value: LD50
Species: rat (male/female)
Value: 730 mg/kg (OECD Guideline 401)

Inhalation
Type of value: LC50
Species: rat (male/female)
Value: 7.85 mg/l (BASF-Test)
Exposure time: 4 h

Dermal
No data available. Study scientifically not justified.

Assessment other acute effects
Assessment of STOT single:
Corrosive to the respiratory tract.

Irritation / corrosion
Assessment of irritating effects: Highly corrosive! Damages skin and eyes.

Skin
Species: rabbit
Result: Corrosive.
Method: OECD Guideline 404
Literature data.

Eye
Study scientifically not justified. As the product corrodes the skin, it can be expected to have a similar effect on the eyes also.

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

Caused sensitization in humans.

Buehler test
Species: guinea pig
Result: Non-sensitizing.
Method: OECD Guideline 406

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: No substance-specific organtoxicity 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.

Genetic toxicity
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.

Carcinogenicity
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.

Reproductive toxicity
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.

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.

Other Information
The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
There is a high probability that the product is not acutely harmful to aquatic organisms. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.
The product gives rise to pH shifts.

Toxicity to fish
LC50 (96 h) 130 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 92/69/EWG, C.1, static)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

LC50 (96 h) 68 mg/l, Leuciscus idus (DIN 38412 Part 15, static)
The details of the toxic effect relate to the nominal concentration. After neutralization, it is no longer toxic.

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.

EC50 (48 h) 32.19 mg/l, Daphnia magna (Directive 79/831/EEC, static)
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.

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)
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.

Chronic toxicity to fish
Study scientifically not justified.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) >= 100 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The statement of the toxic effect relates to the analytically determined concentration. The product will cause changes in the pH value of the test system. The result refers to a neutralized sample. No effects at the highest test concentration.

Assessment of terrestrial toxicity
No data available.
Study scientifically not justified.

Other terrestrial non-mammals
LD50 (18 h) >= 111 mg/kg, Agelaius phoeniceus
Literature data.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
other aerobic
activated sludge, domestic, non-adapted/EC10 (13 d): 72 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable (according to OECD criteria).

Elimination information

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

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.

Information on Stability in Water (Hydrolysis)
$t_{1/2}$ > 5 d (50 °C, pH value 4), (Directive 92/69/EEC, C.7, pH 4)

$t_{1/2}$ > 5 d (50 °C, pH value 7), (Directive 92/69/EEC, C.7, pH 7)

$t_{1/2}$ > 5 d (50 °C, pH value 9), (Directive 92/69/EEC, C.7, pH 9)

Bioaccumulative potential

Bioaccumulation potential
Significant 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.

13. Disposal considerations

Waste disposal of substance:
Dispose of in accordance with national, state and local regulations. Do not discharge into waterways or sewer systems without proper authorization.

Container disposal:
RCRA empty containers may be landfilled at a licensed facility; other containers must be disposed of in a RCRA licensed facility. If containers are not empty, they must be disposed of in a RCRA-licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

RCRA: U123
This product is regulated by RCRA.

14. Transport Information

Land transport
USDOT

Hazard class:	8
Packing group:	II
ID number:	UN 1779
Hazard label:	8, 3
Proper shipping name:	FORMIC ACID

Sea transport
IMDG

Hazard class:	8
Packing group:	II
ID number:	UN 1779
Hazard label:	8, 3
Marine pollutant:	NO
Proper shipping name:	FORMIC ACID

Air transport
IATA/ICAO

Hazard class:	8
Packing group:	II
ID number:	UN 1779
Hazard label:	8, 3
Proper shipping name:	FORMIC ACID

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US

All substances are TSCA listed and active.

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

EPCRA 313:

CAS Number	Chemical name
64-18-6	Formic Acid

CERCLA RQ	CAS Number	Chemical name
5000 LBS	64-18-6	Formic Acid

State regulations

State RTK	CAS Number	Chemical name
PA	64-18-6	Formic Acid
NJ	64-18-6	Formic Acid

NFPA Hazard codes:
Health: 3 Fire: 2 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/09/10

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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Date / Revised: 2025/09/10 Version: 14.1
Date / Previous version: 2025/08/19 Previous version: 14.0

END OF DATA SHEET