Basekim
Chemical Production Co.Ltd

SAFETY DATA SHEET

FORMIC ACID

OSHA Hazard Communication Standard (HCS) 16-Section SDS Summary | Industrial Manufacturing Use

SECTION 1: IDENTIFICATION

Product identifier	Formic Acid
Recommended use	Industrial manufacturing
Restrictions on use	For professional use only
Manufacturer / distributor	BASEKIM KIMYASAL URUNLER IC VE DIS TICARET LIMITED SIRKETI
Company address	ILKBAHAR MAH. FAHREDDIN PASA SK. NO: 6 CANKAYA/ANKARA
Company phone	+903125147055
Emergency phone number	+903125147055

SECTION 2: HAZARD(S) IDENTIFICATION

SIGNAL WORD **DANGER**

- Classification: Flammable liquid; corrosive to metals; acute toxicity (oral and inhalation); skin corrosion/serious eye damage; may be harmful to aquatic life.
- Hazard statements: H226 Flammable liquid and vapor. H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H331 Toxic if inhaled. H402 Harmful to aquatic life.
- Precautionary overview: Keep away from heat, sparks, open flames and hot surfaces. Keep container tightly closed. Use corrosion-resistant equipment. Avoid breathing vapors or mist. Wear protective gloves, protective clothing, eye protection and face protection. Use only with adequate ventilation.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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Component	Identifier / Concentration
Formic acid	CAS No. 64-18-6 | EC No. 200-579-1 | Formula CH2O2 | Concentration: substance / commercial grade, typically >=85-99% depending on supply specification
Impurities / stabilizers	No additional hazardous ingredients are expected to contribute significantly to classification under normal supply conditions.

SECTION 4: FIRST-AID MEASURES

Eye contact	Immediately rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Obtain urgent medical attention.
Skin contact	Remove contaminated clothing and shoes immediately. Rinse skin with plenty of water for at least 15 minutes. Seek medical attention for burns or irritation.
Inhalation	Move person to fresh air and keep comfortable for breathing. If breathing is difficult, trained personnel may administer oxygen. Call a poison center or physician immediately.
Ingestion	Do not induce vomiting. Rinse mouth with water. Never give anything by mouth to an unconscious person. Obtain immediate medical attention.
Important symptoms / effects	Causes severe burns to skin, eyes and mucous membranes. Vapors may cause respiratory tract corrosion, coughing, shortness of breath and delayed pulmonary effects.

SECTION 5: FIRE-FIGHTING MEASURES

- Suitable extinguishing media: alcohol-resistant foam, dry chemical powder, carbon dioxide or water spray. Use water spray to cool unopened containers.
- Specific hazards: flammable liquid and vapor; heating may increase pressure in containers. Fire may produce carbon monoxide, carbon dioxide and irritating/corrosive fumes.
- Protective equipment: firefighters should wear self-contained breathing apparatus and full protective gear. Prevent contaminated firefighting water from entering drains or waterways.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- Evacuate unnecessary personnel and ventilate the area. Eliminate ignition sources and avoid breathing vapors or mist.
- Wear chemical-resistant gloves, goggles/face shield, protective clothing and suitable respiratory protection where ventilation is inadequate.
- Contain spill with inert absorbent material such as sand, earth or vermiculite. Use non-sparking tools and corrosion-resistant containers.
- Neutralization may be performed only by trained personnel. Prevent release to drains, soil and surface waters. Dispose according to local regulations.

SECTION 7: HANDLING AND STORAGE

- Handle in a well-ventilated area using closed transfer systems where practical. Avoid contact with skin, eyes and clothing.
- Keep away from heat, sparks, open flames, oxidizers, strong bases, reducing agents, metals and incompatible materials.
- Store locked up in tightly closed, corrosion-resistant containers in a cool, dry, well-ventilated area. Keep in original packaging where possible.
- Wash hands and exposed skin thoroughly after handling. Do not eat, drink or smoke in handling areas.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameter	Limit / Requirement
OSHA PEL	5 ppm (9 mg/m3) TWA
ACGIH TLV	5 ppm TWA; 10 ppm STEL
NIOSH REL / IDLH	5 ppm (9 mg/m3) TWA; IDLH 30 ppm
Engineering controls	Use local exhaust ventilation, closed handling systems and corrosion-resistant equipment. Provide emergency shower and eyewash station.
Eye / face protection	Chemical splash goggles plus face shield for transfer or splash risk.
Skin protection	Acid-resistant gloves, protective clothing, apron and chemical-resistant footwear as required by exposure risk.
Respiratory protection	Use an approved respirator for acid gases/vapors when exposure limits may be exceeded or ventilation is inadequate; follow OSHA 29 CFR 1910.134.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	Colorless liquid
Odor	Pungent, penetrating / stinging odor
Molecular weight	46.02 g/mol
pH	Approx. 2.2 at 10 g/L, 20 C
Melting point	Approx. 8.2-8.4 C
Boiling point	Approx. 100-101 C
Flash point	Approx. 45 C (closed cup/open cup values may vary by concentration)
Density / specific gravity	Approx. 1.22 g/mL at 20-25 C
Vapor pressure	Approx. 35 mmHg at 20 C (concentration dependent)
Solubility	Completely miscible with water
Explosive limits	LEL approx. 18%; UEL approx. 57% for 90% solution

SECTION 10: STABILITY AND REACTIVITY

- Reactivity: corrosive acid; may corrode metals with possible release of flammable hydrogen gas.
- Chemical stability: stable under recommended storage and handling conditions.
- Possibility of hazardous reactions: reacts with strong oxidizing agents, strong bases, reducing agents and reactive metals; heat and pressure may develop.
- Conditions to avoid: heat, flames, sparks, poor ventilation, incompatible materials and prolonged exposure to air/moisture.
- Hazardous decomposition products: carbon monoxide, carbon dioxide and irritating/corrosive vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

- Likely routes of exposure: inhalation, skin contact, eye contact and ingestion.
- Acute effects: severe burns, serious eye damage, respiratory tract irritation/corrosion, coughing, choking, nausea, abdominal pain and systemic toxicity at high exposure.
- Delayed effects: possible delayed pulmonary edema or respiratory complications following significant inhalation exposure.
- Numerical toxicity: oral LD50 values for formic acid are commonly reported in the hundreds of mg/kg range in test animals; inhalation toxicity supports classification as toxic by inhalation.

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- Chronic effects: repeated exposure may cause dermatitis, respiratory irritation or dental erosion depending on exposure conditions. Not classified as a known human carcinogen by OSHA, IARC or NTP.

SECTION 12: ECOLOGICAL INFORMATION

- Ecotoxicity: harmful to aquatic life at sufficient concentrations due to acidity and chemical oxygen demand.
- Persistence and degradability: expected to be readily biodegradable under aerobic conditions.
- Bioaccumulative potential: low bioaccumulation potential due to high water solubility and low partitioning tendency.
- Mobility in soil: high mobility is expected. Prevent uncontrolled release to soil, drains and waterways.

SECTION 13: DISPOSAL CONSIDERATIONS

- Dispose of contents/container through a licensed waste disposal contractor in accordance with local, regional, national and international regulations.
- Do not discharge untreated product to drains or the environment. Contaminated packaging should be handled as hazardous residue unless properly cleaned.
- Waste classification should be confirmed by the generator based on actual concentration, contamination and applicable jurisdiction.

SECTION 14: TRANSPORT INFORMATION

UN number	UN 1779
Proper shipping name	Formic acid
Transport hazard class	Class 8 Corrosive; subsidiary risk Class 3 Flammable liquid may apply by concentration/transport mode
Packing group	II
Environmental hazards	Not typically classified as a marine pollutant; prevent environmental release
Special precautions	Transport in approved, tightly closed corrosion-resistant packaging. Keep away from heat and incompatible materials.

SECTION 15: REGULATORY INFORMATION

- Prepared in the 16-section SDS format aligned with the OSHA Hazard Communication

Standard (HCS).

- Formic acid is subject to workplace hazard communication, labeling, exposure control and chemical inventory obligations depending on jurisdiction.
- U.S. DOT: regulated as UN 1779 Formic acid, Class 8, Packing Group II for transport. Reportable Quantity may apply under U.S. regulations.
- Users must confirm all national and local regulatory requirements for import, storage, workplace exposure and waste disposal before use.

SECTION 16: OTHER INFORMATION

Preparation / revision date	12 May 2026
SDS type	Industrial SDS summary for professional B2B use
Disclaimer	This document is a summarized safety data sheet intended for professional industrial communication. It does not replace a supplier-specific SDS, local regulatory review or workplace risk assessment.
Abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists; GHS: Globally Harmonized System; IDLH: Immediately Dangerous to Life or Health; OSHA PEL: Permissible Exposure Limit; TLV: Threshold Limit Value; TWA: Time-Weighted Average; STEL: Short-Term Exposure Limit.