

Technical Information

February 2016

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WF-No. 7988

Luvipur[®] FM 75

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in many countries.

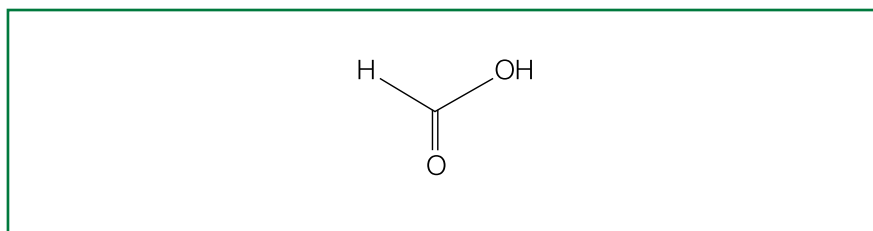
For use in Home Care and I&I applications.

Chemical name Formic acid

PRD-No.* 30653175

*BASF's commercial product numbers.

Structural formula



Molecular Formula CH_2O_2

IUPAC Systematic Name Methanoic acid

Common name Formic acid

Synonyms
Hydrogen carboxylic acid
Formylic acid
Aminic acid
Hydroxymethanone
Hydroxy(oxo)methan
Metacarbonic acid
Oxocarbinic acid
Oxomethanol

CAS-No. 64-18-6

EC No. 200-579-1

Molecular weight 46.03 g/mol

Appearance Colorless to yellowish liquid with pungent odor.

Handling and Storage

Handling

- Keep containers always tightly closed and store them on well ventilated warehouse places. Prevent aerosol formation and direct sunlight or heat (increase of pressure) resp. keep away from source of ignition (temperature class 1 - ignition point > 450 °C).
- Do not store together with alkali or other base-forming substances.
- Do not mix or bring in contact with alkali, amines, bases, mixtures of bases (exothermic reactions) and uncoated or base metals (corrosion).
- In concentrated form, formic acid is a corrosive liquid. Bulk storage and delivery of Luvipur® FM 75 can be carried out in tanks/tank trucks made of stainless steel; for example AISI 316 L. Also applicable for container / packaging are stainless steel of the types 1.4571 , 1.4404, 1.4462 or HDPE and glass. Inappropriate for storage are aluminum, carbon steel and paper or cardboard.
- The recommended storage temperature is <30 °C.
- Please refer to the latest Safety Data Sheet for detailed information on product safety.

Materials

In concentrated form, formic acid is a corrosive liquid. Bulk storage and delivery of Luvipur® FM 75 can be carried out in tanks/tank trucks made of stainless steels; for example AISI 316 L. Smaller quantities may be handled and stored in 316 stainless steel, polypropylene, HDPE, ceramic, or similar corrosion resistant materials. Glass bottles may be used for laboratory quantities. Graphite or PTFE should be used for gaskets.

Shelf life

When stored in the original unopened containers at ambient temperature Luvipur® FM 75 has a shelf life of 2 years.

Properties

Some physical properties are listed in the table below. These are typical values only and not all of them are monitored on a regular basis. They are correct at the time of publication and do not necessarily form part of the product specification. A detailed product specification is available on request or via BASF's WorldAccount: <https://worldaccount.basf.com> (registered access).

Luvipur® FM 75	Unit	Value
Odor		pungent, product specific.
Color APHA		max. 10
Boiling point (1.013 hPa)	°C	107.5
Melting point (1.013 hPa)	°C	-27.6
Flashing point	°C	79
Concentration (% w/w)	%	75 – 76
Density (20 °C)	g/cm ³	1.176
pH value (10 g/l, 20 °C)		2.2
Viscosity dynamic, 20 °C kinematic, 20 °C	mPa·s mm ² /s	1.61 1.37
Solubility in water		fully miscible
Solubility in solvents		miscible with ether, acetone, ethyl acetat, glycerol, methanol, ethanol - only partially soluble in benzene, toluene, xylenes

Application Areas

Formic acid can be used as neutralizer and acidifier in several processes in the I&I cleaning industry, e.g. for neutralizing the wash liquor at the end of the industrial laundry washing process. Further, formic acid dissolves and removes calcium based scales in industrial cleaning processes e.g. removal of milk stone in the dairy industry and beer stone in breweries or can also be used for rust removal.

In acidic cleaners for home care and I&I, such as products for bath rooms, toilets and sanitary facilities, formic acid is used as cleaning and antiscalant agent. Formic acid is fully stable in non-oxidizing formulations, it leaves no residues and is readily biodegradable. Since metal salts of formic acid have generally a high water solubility, formic acid has a high dissolving power for scales of different metal origins.

Safety

Toxicological & Environmental Data For more detailed information please refer to the safety data sheet.

Labelling Please refer to the latest Data Sheet for detailed information on product safety.

Safety When using this product, the information and advice given in our Safety Data Sheet should be followed. Due attention should also be given to the precautions necessary for handling chemicals.

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February 2016