

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24

Version: 2.0

Page: 1/9

(50246613/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Lupasol® FG

Recommended use of the chemical and restriction on use

Recommended use*: Chemical

Suitable for use in industrial sector: chemical industry

* 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

CHEMTREC: 1-800-424-9300

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

Other means of identification

Chemical family: polyethyleneimine Polymer

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Eye Dam./Irrit.	1	Serious eye damage/eye irritation
Aquatic Acute	3	Hazardous to the aquatic environment - acute
Aquatic Chronic	3	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 2/9
(50246613/SDS_GEN_US/EN)



Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H302	Harmful if swallowed.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear eye/face protection.
P273	Avoid release to the environment.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap 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 doctor/physician.
P330	Rinse mouth.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
------	-------------------------------------------------------------------------------

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Emergency overview

WARNING:

RISK OF SERIOUS DAMAGE TO EYES.

INGESTION MAY CAUSE GASTRIC DISTURBANCES.

Use with local exhaust ventilation.

Wear a NIOSH-certified (or equivalent) organic vapour/particulate respirator.

Wear NIOSH-certified chemical goggles.

Wear protective clothing.

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
9002-98-6	80.0 - 100.0 %	polyethyleneimine

According to Regulation 1994 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

modified

Starting materials listed in EINECS

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 3/9
(50246613/SDS_GEN_US/EN)

4. First-Aid Measures

Description of first aid measures

General advice:

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:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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, foam

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture

Advice for fire-fighters

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

Further information:

Contaminated extinguishing water must be disposed of in accordance with official regulations.

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 4/9
(50246613/SDS_GEN_US/EN)

6. Accidental release measures

Further accidental release measures:

High risk of slipping due to leakage/spillage of product.

Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures see, section 8.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with absorbent material (e.g. sand, sawdust, general-purpose binder).

Dispose of absorbed material in accordance with regulations.

For large amounts: Pump off product.

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

7. Handling and Storage

Precautions for safe handling

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

No special precautions necessary.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and in a cool place.

8. Exposure Controls/Personal Protection

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Half mask with particle filter type P2 (EN 140, 143)

Hand protection:

Chemical resistant protective gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures:

Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 5/9
(50246613/SDS_GEN_US/EN)

9. Physical and Chemical Properties

Form:	liquid	
Odour:	product specific	
Colour:	yellowish	
pH value:	approx. 10	(50 g/l, 20 °C)
solidification temperature:	approx. -25 °C	
Boiling point:		not applicable
Flash point:	approx. 180 °C	(DIN EN 22719; ISO 2719)
Autoignition:	> 200 °C	(DIN 51794)
	389 °C	(DIN EN 14522)
Vapour pressure:	< 0.35 mmHg	(20 °C)
Density:	1.0251 g/cm3	(25 °C) (ISO 2811-3)
Relative density:		No data available.
Partitioning coefficient n-octanol/water (log Pow):		not determined
Particle size:		
		The substance / product is marketed or used in a non solid or granular form.
Solubility in water:		fully soluble
Solubility (qualitative):	soluble	
	solvent(s): polar solvents,	
Other Information:	If necessary, information on other physical and chemical parameters is indicated in this section.	

10. Stability and Reactivity

Reactivity

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

Corrosion to metals:
No data available.

Chemical stability

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

Possibility of hazardous reactions

No hazardous reactions when stored and handled according to instructions.
The product is chemically stable.

Conditions to avoid

Incompatible materials

strong acids, strong bases, strong oxidizing agents, reactive chemicals

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.
(DSC (DIN 51007))

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 6/9
(50246613/SDS_GEN_US/EN)

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

Oral

Type of value: LD50

Species: rat

Value: 500 - 2,000 mg/kg

Inhalation

Type of value: LC50

Species: rat

not determined

Dermal

Type of value: LD50

Species: rat

not determined

Skin

Species: rabbit

Result: non-irritant

Method: Draize test

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

Eye

Species: rabbit

Result: Risk of serious damage to eyes.

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

Sensitization

Assessment of sensitization: No sensitizing effect.

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Method: OECD Guideline 429

Chronic Toxicity/Effects

Genetic toxicity

Assessment of mutagenicity: No data available concerning mutagenic effects.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 7/9
(50246613/SDS_GEN_US/EN)

Assessment of reproduction toxicity: No data available.

Teratogenicity

Assessment of teratogenicity: No data available.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

12. Ecological Information

Toxicity

Toxicity to fish

LC50 (96 h) 10 - 100 mg/l, *Leuciscus idus*

Aquatic plants

EC50 (72 h), algae
not determined

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

Persistence and degradability

Elimination information

Poorly biodegradable.

Well eliminable from water by adsorption on activated sludge.

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 possible.

Additional information

Add. remarks environm. fate & pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

Other ecotoxicological advice:

Do not release untreated into natural waters.

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24
Version: 2.0

Page: 8/9
(50246613/SDS_GEN_US/EN)

The product has not been tested. The statements on ecotoxicology have been derived from products of a similar structure and composition.

13. Disposal considerations

Waste disposal of substance:

Dispose of in accordance with national, state and local regulations. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Not hazardous;

CERCLA RQ

1 LBS

CAS Number

151-56-4

Chemical name

ethylenimine

NFPA Hazard codes:

Health : 2 Fire: 1 Reactivity: 0 Special:

HMIS III rating

Health: 2 Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:

Safety Data Sheet

Lupasol® FG

Revision date : 2015/04/24

Version: 2.0

Page: 9/9

(50246613/SDS_GEN_US/EN)

BASF NA Product Regulations

SDS Prepared on: 2015/04/24

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.

Lupasol® FG is a registered trademark of BASF Corporation or BASF SE
IMPORTANT: WHILE THE DESCRIPTIONS, DESIGNS, DATA AND INFORMATION CONTAINED HEREIN ARE PRESENTED IN GOOD FAITH AND BELIEVED TO BE ACCURATE, IT IS PROVIDED FOR YOUR GUIDANCE ONLY. BECAUSE MANY FACTORS MAY AFFECT PROCESSING OR APPLICATION/USE, WE RECOMMEND THAT YOU MAKE TESTS TO DETERMINE THE SUITABILITY OF A PRODUCT FOR YOUR PARTICULAR PURPOSE PRIOR TO USE. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE. FURTHER, YOU EXPRESSLY UNDERSTAND AND AGREE THAT THE DESCRIPTIONS, DESIGNS, DATA, AND INFORMATION FURNISHED BY OUR COMPANY HEREUNDER ARE GIVEN GRATIS AND WE ASSUME NO OBLIGATION OR LIABILITY FOR THE DESCRIPTION, DESIGNS, DATA AND INFORMATION GIVEN OR RESULTS OBTAINED, ALL SUCH BEING GIVEN AND ACCEPTED AT YOUR RISK.
END OF DATA SHEET