

Safety Data Sheet

Lupasol® G 100

Revision date : 2014/12/11

Version: 1.0

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(30048278/SDS_GEN_US/EN)

1. Identification

Product identifier used on the label

Lupasol® G 100

Recommended use of the chemical and restriction on use

* The "Recommended use" identified for this product is provided solely to comply with a US 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

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
Skin Sens.	1B	Skin sensitization
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

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Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H401	Toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P280	Wear protective gloves and eye/face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P272	Contaminated work clothing should not be allowed out of the workplace.
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):

P310	Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P303 + P362	IF ON SKIN (or hair): Wash with plenty of soap and water.
P301 + P330	IF SWALLOWED: rinse mouth.
P362 + P364	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

Labeling of special preparations (GHS):

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 50 % dermal

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 50 % oral

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 50 % Inhalation - vapour

The following percentage of the mixture consists of components(s) with unknown hazards regarding the acute toxicity: 50 % Inhalation - mist

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

Emergency overview

WARNING:

Causes eye irritation.

HARMFUL IF SWALLOWED.

MAY CAUSE RESPIRATORY TRACT IRRITATION.

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MAY CAUSE SKIN IRRITATION.

Avoid contact with the skin, eyes and clothing.

Wear NIOSH-certified chemical goggles.

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

Wear chemical resistant protective gloves.

Eye wash fountains and safety showers must be easily accessible.

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	50.0 %	polyethyleneimine

This product does not contain any components classified as hazardous under the referenced regulation.

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

<u>CAS Number</u>	<u>Content (W/W)</u>	<u>Chemical name</u>
7732-18-5	50.0 %	Water
9002-98-6	50.0 %	POLYMER POLYMIN G 100

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., Further important symptoms and effects are so far not known.

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.

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5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam

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.

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

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE)
Protect from temperatures above: 40 °C

8. Exposure Controls/Personal Protection

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Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Breathing protection if breathable aerosols/dust are formed.

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:

No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	product specific, offensive	
Odour threshold:		No data available.
Colour:	colourless to yellowish	
pH value:	approx. 11	(1 %(m)) (DIN 19268)
solidification temperature:	approx. -20 °C	
Boiling point:	approx. 100 °C	
Flash point:	> 200 °C	(DIN 51758)
Flammability:	not self-igniting	
Lower explosion limit:		Study does not need to be conducted.
Upper explosion limit:		Study does not need to be conducted.
Autoignition:	> 200 °C	(DIN 51794)
<i>Information on: Water</i>		
Vapour pressure:	23 hPa	(20 °C)

Density:	approx. 1.08 g/cm ³	(20 °C) (DIN 51757)
Relative density:	approx. 1.08	(20 °C)
Vapour density:		not determined
Partitioning coefficient n-octanol/water (log Pow):		not applicable
Self-ignition temperature:		not self-igniting
Thermal decomposition:	> 250 °C	
Viscosity, dynamic:	approx. 1,100 mPa.s	(20 °C)
Particle size:		The substance / product is marketed or used in a non solid or granular form.
Solubility in water:		fully soluble
Solubility (qualitative):		
	solvent(s): distilled water, alcohols, Methanol, Ethanol, 1-Propanol, 2-Propanol	
Evaporation rate:		No data available.

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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.

Oxidizing properties:

not fire-propagating

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

See MSDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, oxidizing agents, reactive chemicals

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

> 250 °C

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

Oral

Type of value: LD50

Species: rat

Value: > 300 - 2,000 mg/kg

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

Inhalation

Type of value: LC50

Species: rat

not determined

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Assessment other acute effects

No data available.

Irritation / corrosion

Assessment of irritating effects: May cause severe damage to the eyes. Not irritating to the skin.

Skin

Species: rabbit

Result: non-irritant

Method: BASF-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

Guinea pig maximization test

Species: guinea pig

Result: sensitizing

Mouse Local Lymph Node Assay (LLNA)

Species: mouse

Result: sensitizing

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No data available.

Genetic toxicity

Assessment of mutagenicity: The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity: No data available concerning carcinogenic effects.

Reproductive toxicity

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., Further important symptoms and effects are so far not known.

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12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

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

Toxicity to fish

LC50 (96 h) 1 - 10 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

Assessment biodegradation and elimination (H₂O)

Poorly biodegradable.

Mobility in soil

Assessment transport between environmental compartments

not determined

Additional information

Add. remarks environm. fate & pathway:

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

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.

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14. Transport Information

Land transport

USDOT

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains POLYETHYLENEIMINE)

Sea transport

IMDG

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Marine pollutant: YES
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains POLYETHYLENEIMINE)

Air transport

IATA/ICAO

Hazard class: 9
Packing group: III
ID number: UN 3082
Hazard label: 9, EHSM
Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains POLYETHYLENEIMINE)

15. Regulatory Information

Federal Regulations

Registration status:

Chemical TSCA, US released / listed

EPCRA 311/312 (Hazard categories): Acute;

CERCLA RQ

1 LBS

CAS Number

151-56-4

Chemical name

ethylenimine

State regulations

CA Prop. 65:

WARNING: THIS PRODUCT CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

NFPA Hazard codes:

Health : 3 Fire: 1 Reactivity: 0 Special:

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HMIS III rating

Health: 3 \square Flammability: 1 Physical hazard: 0

16. Other Information

SDS Prepared by:

BASF NA Product Regulations

SDS Prepared on: 2014/12/11

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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