

Safety Data Sheet

Lupasol® P

Revision date : 2020/04/28

Version: 4.0

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(30048284/SDS_GEN_CA/EN)

1. Identification

Product identifier used on the label

Lupasol® P

Recommended use of the chemical and restriction on use

Recommended use*: formulation auxiliary for the 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 Canada Inc.
5025 Creekbank Road
Building A, Floor 2
Mississauga, ON, L4W 0B6, CANADA

Telephone: +1 289 360-1300

Emergency telephone number

CHEMTREC: 1-800-424-9300
BASF HOTLINE: (800) 454-COPE (2673)

Other means of identification

Chemical family: polyethyleneimine

2. Hazards Identification

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

Classification of the product

Acute Tox.	4 (oral)	Acute toxicity
Eye Dam./Irrit.	2A	Serious eye damage/eye irritation
Skin Sens.	1	Skin sensitization
Aquatic Acute	2	Hazardous to the aquatic environment - acute
Aquatic Chronic	2	Hazardous to the aquatic environment - chronic

Label elements

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Pictogram:



Signal Word:
Warning

Hazard Statement:

H319	Causes serious eye irritation.
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 protection or 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 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.
P303 + P362	IF ON SKIN (or hair): Wash with plenty of soap and water.
P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or physician.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P337 + P311	If eye irritation persists: Call a POISON CENTER or physician.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.
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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.

3. Composition / Information on Ingredients

According to Hazardous Products Regulations (HPR) (SOR/2015-17)

polyethyleneimine

CAS Number: 9002-98-6

Content (W/W): ≥ 45.0 - $\leq 55.0\%$

Synonym: Aziridine homopolymer

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4. First-Aid Measures

Description of first aid measures

General advice:

Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Seek medical attention.

If on skin:

Wash thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

Flush with copious amounts of water for at least 15 minutes. Hold eyelids open to facilitate rinsing. Remove contact lenses, if present, after first 5 minutes, then continue rinsing for an additional 15 minutes. If irritation develops, seek medical attention.

If swallowed:

Immediately rinse mouth and then drink 200 - 300 ml water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

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., Eye irritation

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, foam

Unsuitable extinguishing media for safety reasons:
No data available.

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

The substances/groups of substances mentioned can be released in case of fire.

carbon monoxide, carbon dioxide, corrosive gases/vapours, toxic gases/vapours

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Cool endangered containers with water-spray.

Advice for fire-fighters

Protective equipment for fire-fighting:
Wear a self-contained breathing apparatus.

Further information:

Fire debris 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.

Environmental precautions

Do not discharge into drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

Methods and material for containment and cleaning up

For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable gloves and eye/face protection.

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 dry; store in a cool place.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

Advice on system design:

Provide local exhaust ventilation to control vapours/mists.

Personal protective equipment

Respiratory protection:

Respiratory protection not required.

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Hand protection:

Consult with glove manufacturer for testing data., Rubber gloves, Plastic gloves, Synthetic rubber gloves

Eye protection:

Tightly fitting safety goggles (chemical goggles).

Body protection:

light protective clothing

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Wash soiled clothing immediately.

9. Physical and Chemical Properties

Form:	liquid	
Odour:	ammonia-like	
Odour threshold:	No data available.	
Colour:	colourless to slightly yellow	
pH value:	approx. 12 (100 g/l, 23 °C)	(DIN ISO 976)
solidification temperature:	approx. -10 °C	(DIN ISO 3016)
Boiling point:	approx. 100 °C (1,013 hPa)	
Sublimation point:	No applicable information available.	
Flash point:	> 100 °C	(DIN EN 22719; ISO 2719)
Flammability:	not flammable	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling. The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Autoignition:	> 200 °C	(DIN 51794)
Vapour pressure:	No applicable information available.	
<i>Information on: Water</i>		
Vapour pressure:	23.4 hPa (20 °C) Literature data.	

Density:	approx. 1.08 g/cm3 (20 °C)	(DIN 51757)
Relative density:	No data available.	
Vapour density:	No data available.	
Partitioning coefficient n-octanol/water (log Pow):	not applicable for mixtures	
Self-ignition temperature:	not self-igniting	
Thermal decomposition:	No applicable information available.	
Viscosity, dynamic:	18,000 - 40,000 mPa.s (20 °C)	(DIN EN ISO 2555 (RV))
Viscosity, kinematic:	No applicable information available.	

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Solubility in water:	(20 °C) miscible
Solubility (quantitative):	No applicable information available.
Solubility (qualitative):	miscible solvent(s): Water
Molar mass:	No applicable information available.
Evaporation rate:	No data available.
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

The product is chemically stable.

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

Conditions to avoid

Avoid extreme heat.

Incompatible materials

acids

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

No applicable information 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: Harmful if swallowed.

Oral

Type of value: LD50

Species: rat (male/female)

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Value: > 500 - < 2,000 mg/kg (OECD Guideline 423)

Inhalation

No applicable information available.

Dermal

No applicable information available.

Assessment other acute effects

No applicable information available.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Skin

Species: rabbit

Result: non-irritant

Method: OECD Guideline 404

Eye

Species: rabbit

Result: Irritant.

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Caused skin sensitization in animal studies.

Guinea pig maximization test

Species: guinea pig

Result: Caused skin sensitization in animal studies.

Method: OECD Guideline 406

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: No data available.

Genetic toxicity

Assessment of mutagenicity: The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity: No data available.

Reproductive toxicity

Assessment of reproduction toxicity: No data available.

Teratogenicity

Assessment of teratogenicity: No data available.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

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Acutely toxic for aquatic organisms. Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Acute effects on aquatic organisms are due to cationic charge, which is likely to be neutralized in natural water courses by anionic species.

Toxicity to fish

LC50 (96 h) 7.1 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 92/69/EEC, C.1, static)

Nominal concentration.

Aquatic invertebrates

EC50 (48 h) 8.84 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Nominal concentration.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN EN ISO 8192-OECD 209-88/302/EEC,P. C activated sludge/EC20 (0.5 h): 60 mg/l

Depending on local conditions and existing concentrations, disturbances in the biodegradation process of activated sludge are possible.

Persistence and degradability

Elimination information

approx. 50 - 60 % DOC reduction (28 d) (OECD Guideline 302 B) (aerobic, activated sludge, domestic) Moderately/partially eliminated from water.

Bioaccumulative potential

Bioaccumulation potential

The product has not been tested.

Mobility in soil

Assessment transport between environmental compartments

No data available.

Additional information

Other ecotoxicological advice:

Do not allow to enter soil, waterways or waste water channels.

13. Disposal considerations

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations.

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

TDG

Not classified as a dangerous good under transport regulations

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 DSL, CA released / listed

NFPA Hazard codes:

Health: 2 Fire: 0 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations
SDS Prepared on: 2020/04/28

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

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operations on society and the environment during production, storage, transport, use and disposal of our products.

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