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1. Identification

Product identifier used on the label

Plurafac® LF 901

Recommended use of the chemical and restriction on use

Recommended use*: Raw material for the chemical-technical industry

Recommended use*: Chemical

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

Synonyms: Surfactant

2. Hazards Identification

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

Classification of the product

Eye Dam./Irrit. 2A Serious eye damage/eye irritation

Aquatic Acute 3 Hazardous to the aquatic environment - acute

Label elements

Pictogram:

^{*} 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.

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Signal Word: Warning

Hazard Statement:

H319 Causes serious eye irritation. H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

P280 Wear eye/face protection.
P273 Avoid release to the environment.

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.

P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.

Precautionary Statements (Disposal):

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

point.

Hazards not otherwise classified

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

Labeling of special preparations (GHS):

This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

3. Composition / Information on Ingredients

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

CAS Number Weight % Chemical name

Trade Secret 60.0 - 100.0% Fatty Alcohol Alkoxylate

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.

If on skin:

Wash thoroughly with soap and water.

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If in eyes:

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) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Note to physician

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

Hazards during fire-fighting:

harmful vapours, carbon oxides

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

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.

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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: Carbon steel (Iron), High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4306 (V2A), Stainless steel 1.4401, Stainless steel 1.4439, Stainless steel 1.4539, Stainless steel 1.4541, Stainless steel 1.4571, Stove-lacquer RDL 50, enamelled, tinned carbon steel (Tinplate)

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

Storage stability:

Storage temperature: < 70 °C

The product is not damaged by low temperatures or by frost.

Protect from temperatures above: 70 °C

Properties of the product change irreversibly on exceeding the limit temperature.

8. Exposure Controls/Personal Protection

No occupational exposure limits known.

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) and face shield.

Body protection:

Body protection must be chosen based on level of activity and exposure.

General safety and hygiene measures:

Wearing of closed work clothing is required additionally to the stated personal protection equipment. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

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9. Physical and Chemical Properties

Form: liquid

Odour: product specific
Odour threshold: not determined

Colour: colourless to yellowish

clear to slightly cloudy

pH value: approx. 7 (DIN EN 1262)

Melting temperature: < 5 °C Boiling point: < 5 °C > 250 °C

Flash point: approx. 200 °C (DIN EN 22719; ISO

2719)

Flammability: not flammable

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: < 0.1 hPa

(20°C)

Density: approx. 1.02 g/cm3 (DIN 51757)

(20°C)

approx. 0.99 g/cm3 (DIN 51757)

(50°C)

approx. 0.98 g/cm3 (DIN 51757)

(70°C)

approx. 1.02 g/cm3 (DIN 51757)

(15°C)

Relative density:
Vapour density:

No data available.
not determined
not applicable

octanol/water (log Pow):

Self-ignition > 300 °C temperature: not self-igniting Thermal decomposition: > 300 °C

Viscosity, dynamic: approx. 20 mPa.s

(70°C)

approx. 30 mPa.s

(60°C)

approx. 130 mPa.s

(23°C)

Particle size: The substance / product is marketed

or used in a non solid or granular

form.

Solubility in water: partly soluble
Miscibility with water: soluble
Solubility (qualitative): soluble

solvent(s): alcohols,

Evaporation rate: Value can be approximated from

Henry's Law Constant or vapor

pressure.

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

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10. Stability and Reactivity

Reactivity

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

Corrosion to metals:

No corrosive effect on metal.

Oxidizing properties: not fire-propagating

Chemical stability

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

Peroxides: The product does not contain peroxides.

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

acids, Alkalines, caustics, halogens, reactive chemicals

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

> 300 °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

Acute toxicity

Assessment of acute toxicity: Of low toxicity after single ingestion.

Oral

Type of value: LD50

Species: rat

Value: > 2,000 - 5,000 mg/kg (OECD Guideline 423)

Inhalation

Type of value: LC50

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Species: rat not determined

Dermal

Type of value: LD50 Species: rat not determined

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

<u>Irritation / corrosion</u>

Assessment of irritating effects: Irritating to eyes. Skin contact causes slight irritation.

<u>Skin</u>

Species: rabbit

Method: OECD Guideline 404

Eye

Species: rabbit Result: Irritant.

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Based on available Data, the classification criteria are not met.

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Genetic toxicity

Assessment of mutagenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Carcinogenicity

Assessment of carcinogenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Reproductive toxicity

Assessment of reproduction toxicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Teratogenicity

Assessment of teratogenicity: Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

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Other Information

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

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., (Further) symptoms and / or effects are not known so far

12. Ecological Information

Toxicity

Toxicity to fish

LC50 (96 h) > 10 - 100 mg/l, Fish (OECD 203; ISO 7346; 92/69/EEC, C.1)

Aquatic invertebrates

EC50 (48 h) > 10 - 100 mg/l, daphnia (OECD Guideline 202, part 1)

Aquatic plants

EC50 (72 h) > 10 - 100 mg/l, algae (OECD Guideline 201) acute Effect

EC10 (72 h) > 1 mg/l, algae (OECD Guideline 201) long-term effect

Chronic toxicity to fish

No data available.

Chronic toxicity to aquatic invertebrates

No data available.

Assessment of terrestrial toxicity

No data available concerning terrestrial toxicity.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

bacteria/EC50 (0.5 h):

not determined

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Readily biodegradable (according to OECD criteria). Easily eliminated from water.

Elimination information

> 60 % CO2 formation relative to the theoretical value (28 d) (ISO 9439, Annex D (Kombitest)) Readily biodegradable.

70 % TIC of the ThIC (60 d) (DIN EN ISO 11734) (anaerobic, anaerobic sludge)

Bioaccumulative potential

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Bioaccumulation potential

Accumulation in organisms is not to be expected.

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:

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 accordance with national, state and local regulations.

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): Refer to SDS section 2 for GHS hazard classes applicable for this product.

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CERCLA RQ CAS Number Chemical name

100 LBS 75-56-9; 123-91-1 Propylene oxide; 1,4-dioxane

10 LBS 75-21-8 Ethylene Oxide

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including ETHYLENE OXIDE, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

NFPA Hazard codes:

Health: 2 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2019/03/29

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