



<b>SAFETY DATA SHEET</b>	Revision Date: 26.11.2018
	Print Date: 12.12.2018
	SDS Number: 000000273474
OPTIMAGE SF polymer	Version: 2.1
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Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS\_BE

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : OPTIMAGE SF  
polymer

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Personal care

### 1.3 Details of the supplier of the safety data sheet

Ashland  
P.O. Box 8619  
NL3009 AP, Rotterdam  
Netherlands  
+31 10 497 5000 (in the Netherlands), or  
contact your local CSR contact person

EUSMT@ashland.com

### 1.4 Emergency telephone number

+1-800-274-5263/001-859-357-3564, or contact  
your local emergency telephone number at  
070/245.245

### Product Information

+31 10 497 5000 (in the Netherlands), or contact  
your local CSR contact person

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

#### Additional Labelling:

EUH210 Safety data sheet available on request.

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**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Additional advice**

No information available.

**SECTION 3: Composition/information on ingredients**
**3.2 Mixtures**
**Hazardous components**

Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
2-Pyrrolidinone, 1-ethenyl-, polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride	131954-48-8 603-542-1	Skin Irrit.2; H315 Aquatic Chronic3; H412	>= 5,00 - < 10,00

For explanation of abbreviations see section 16.

**SECTION 4: First aid measures**
**4.1 Description of first aid measures**

- General advice : No hazards which require special first aid measures.
- If inhaled : If breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
If on skin, rinse well with water.  
Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.



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Protect unharmed eye.  
If eye irritation persists, consult a specialist.

If swallowed : Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

#### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : The most important known symptoms and effects are described in the labelling (see Section 2.2) and/or Section 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : No hazards which require special first aid measures.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical

Unsuitable extinguishing media : High volume water jet

#### 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products : Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrogen chloride

#### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

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Further information : Standard procedure for chemical fires.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.  
Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.  
Comply with all applicable federal, state, and local regulations.

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.  
Smoking, eating and drinking should be prohibited in the application area.  
For personal protection see section 8.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday. When using do not eat or drink. When using do not smoke.

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### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place.

Further information on storage conditions : PROTECT FROM FREEZE

Other data : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

Specific use(s) : No data available

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Engineering measures

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### Personal protective equipment

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Use eye protection according to EN 166.

#### Hand protection

Material : butyl-rubber

Break through time : 480 min

Glove thickness : > 0,5 mm

Remarks : The exact break through time can be obtained from the protective glove producer and this has to be observed. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

The selected protective gloves have to satisfy the



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specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Skin and body protection : Wear as appropriate:  
Impervious clothing  
Safety shoes  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective clothing complying with EN 13688.  
Safety shoes complying with EN ISO 20345.

Respiratory protection : In the case of vapour formation use a respirator with an approved filter within the capabilities of the respirator/filter combination.  
Where concentrations are above recommended limits or are unknown, or a cartridge type respirator is not adequate, wear a positive-pressure supplied-air respirator.

Respiratory protection complying with EN 136.  
Respiratory protection complying with EN 140.  
Respiratory protection complying with EN 14387.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : liquid

Colour : white, opaque

Odour : characteristic

Odour Threshold : No data available

pH : 6,9 - 7,9

Melting point/freezing point : No data available

Boiling point/boiling range : 100,3 °C

Flash point : > 120 °C

Evaporation rate : No data available

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Flammability (solid, gas) : No data available

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : No data available

Density : 1,0 g/cm<sup>3</sup>

Solubility(ies)

Water solubility : No data available

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 1.000 - 3.000 cps

Viscosity, kinematic : No data available

Oxidizing properties : No data available

### 9.2 Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions



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Hazardous reactions : Product will not undergo hazardous polymerization.

#### 10.4 Conditions to avoid

#### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents  
strong reducing agents

#### 10.6 Hazardous decomposition products

Hazardous decomposition products : No hazardous decomposition products are known.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

Information on likely routes of exposure : Inhalation  
Skin contact  
Eye Contact  
Ingestion

##### Acute toxicity

Not classified based on available information.

##### Components:

2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

##### Skin corrosion/irritation

Not classified based on available information.

##### Components:

2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride

Result: Irritating to skin.

##### Serious eye damage/eye irritation

Not classified based on available information.

##### Product:

Remarks: Vapours may cause irritation to the eyes, respiratory system and the skin.

##### Components:

2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride

Result: Slight, transient irritation





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**Respiratory or skin sensitisation**

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

Genotoxicity in vivo : Result: In vivo tests did not show any chromosomal changes.

**Carcinogenicity**

Not classified based on available information.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Further information****Product:**

Remarks: No data available

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**SECTION 12: Ecological information**
**12.1 Toxicity****Components:**

2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 23,81 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 501,22 mg/l  
aquatic invertebrates Exposure time: 48 h

**12.2 Persistence and degradability****Components:**



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2-Pyrrolidinone,1-ethenyl-,polymer with N,N,N-trimethyl-3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanaminium chloride  
 Biodegradability : Remarks: Not readily biodegradable., Based on a similar product formulation.

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### 12.6 Other adverse effects

#### Product:

Additional ecological information : No data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.  
 Do not contaminate ponds, waterways or ditches with chemical or used container.  
 Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.  
 Dispose of as unused product.  
 Empty containers should be taken to an approved waste handling site for recycling or disposal.  
 Do not re-use empty containers.

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**SECTION 14: Transport information**
**SECTION 14: Transport information**
**14.1 UN number**
**ADN:** Not dangerous goods

**ADR:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods

**RID:** Not dangerous goods

**14.2 UN proper shipping name**
**ADN:** Not dangerous goods

**ADR:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods

**RID:** Not dangerous goods

**14.3 Transport hazard class(es)**
**ADN:** Not dangerous goods

**ADR:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods

**RID:** Not dangerous goods

**14.4 Packing group**
**ADN:** Not dangerous goods

**ADR:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not dangerous goods

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not dangerous goods

**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not dangerous goods

**RID:** Not dangerous goods

**14.5 Environmental hazards**
**ADN:** Not applicable

**ADR:** Not applicable

**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** Not applicable



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**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** Not applicable

**INTERNATIONAL MARITIME DANGEROUS GOODS:** Not applicable

**RID:** Not applicable

#### 14.6 Special precautions for user

Not applicable

#### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

### SECTION 15: Regulatory information

#### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable


Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.  
Not applicable

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**The components of this product are reported in the following inventories:**

DSL	: All components of this product are on the Canadian DSL
AICS	On the inventory, or in compliance with the inventory
ENCS	On the inventory, or in compliance with the inventory
KECI	On the inventory, or in compliance with the inventory
PICCS	Not in compliance with the inventory
IECSC	On the inventory, or in compliance with the inventory
TCSI	On the inventory, or in compliance with the inventory
TSCA	On the inventory, or in compliance with the inventory

**Inventories**

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

**15.2 Chemical safety assessment**

No data available

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**SECTION 16: Other information**

**Further information**

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**Full text of H-Statements**

<b>H315</b>	Causes skin irritation.
<b>H412</b>	Harmful to aquatic life with long lasting effects.



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Other information : The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (+31 10 497 5000).

Sources of key data used to compile the Safety Data Sheet  
 Ashland internal data including own and sponsored test reports  
 The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists  
 BEI : Biological Exposure Index  
 CAS : Chemical Abstracts Service (Division of the American Chemical Society).  
 CMR : Carcinogenic, Mutagenic or Toxic for Reproduction  
 FG : Food grade  
 GHS : Globally Harmonized System of Classification and Labeling of Chemicals.  
 H-statement : Hazard Statement  
 IATA : International Air Transport Association.  
 IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
 ICAO : International Civil Aviation Organization  
 ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"  
 IMDG : International Maritime Code for Dangerous Goods  
 ISO : International Organization for Standardization  
 logPow : octanol-water partition coefficient  
 LCxx : Lethal Concentration, for xx percent of test population  
 LDxx : Lethal Dose, for xx percent of test population.  
 ICxx : Inhibitory Concentration for xx of a substance  
 Ecxx : Effective Concentration of xx  
 N.O.S.: Not Otherwise Specified  
 OECD : Organization for Economic Co-operation and Development  
 OEL : Occupational Exposure Limit  
 P-Statement : Precautionary Statement  
 PBT : Persistent , Bioaccumulative and Toxic  
 PPE : Personal Protective Equipment  
 STEL : Short-term exposure limit



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STOT : Specific Target Organ Toxicity  
 TLV : Threshold Limit Value  
 TWA : Time-weighted average  
 vPvB : Very Persistent and Very Bioaccumulative  
 WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands  
 ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.  
 ADN: Regulation for the Carriage of Dangerous Substances on the Rhine  
 CLP : Classification, Labelling and Packaging  
 CSA : Chemical Safety Assessment  
 CSR : Chemical Safety Report  
 DNEL : Derived No Effect Level.  
 EINECS : European Inventory of Existing Commercial Chemical Substances.  
 ELINCS : European List of Notified Chemical Substances  
 GV: Exposure limits (DK)  
 PEC : Predicted Effect Concentration  
 PEL : Permissible Exposure Limits  
 PNEC : Predicted No Effect Concentration  
 R-phrase : Risk phrase  
 REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals  
 RID : Regulation Concerning the International Transport of Dangerous Goods by Rail  
 S-phrase: Safety phrase  
 WGK : German Water Hazard Class