

# Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 04.12.2017

Version: 8.3

Product: **Catamold 316L A**

(ID no. 10205096/SDS\_GEN\_EU/EN)

Date of print 20.12.2018

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

### 1.1. Product identifier

## Catamold 316L A

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

Recommended use: Intermediate, see separate brochures

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Telephone: +49 621 60-0

E-mail address: [global.info@basf.com](mailto:global.info@basf.com)

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

### 2.2. Label elements

Globally Harmonized System, EU (GHS)

The product does not require a hazard warning label in accordance with GHS criteria. The dangerous ingredients are fixed in a polymer matrix.

## Labeling of special preparations (GHS):

Product contains the following components and may cause an allergic skin reaction: nickel

**2.3. Other hazards**According to Regulation (EC) No 1272/2008 [CLP]

Upon mechanical treatment like e.g. cutting, grinding and/or polishing the product can release hazardous substances. Upon thermal and/or chemical treatment the product can release hazardous substances. The product is under certain conditions capable of dust explosion. 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.

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**SECTION 3: Composition/Information on Ingredients****3.1. Substances**

Not applicable

**3.2. Mixtures**Chemical nature

polymer blend based on: Alloy, metal powder  
encapsulated, in a polymer matrix

Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

nickel

Content (W/W): $\geq 7\%$ - $< 12.5\%$	Skin Sens. 1
CAS Number: 7440-02-0	Carc. 2
EC-Number: 231-111-4	STOT RE 1
REACH registration number: 01-2119438727-29	Aquatic Chronic 3 H317, H351, H372, H412

Chromium

Content (W/W):  $\geq 15\%$  -  $< 18.5\%$  Aquatic Chronic 4  
H413  
CAS Number: 7440-47-3  
EC-Number: 231-157-5  
REACH registration number: 01-  
2119485652-31

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

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## SECTION 4: First-Aid Measures

### 4.1. Description of first aid measures

If inhaled:

If formaldehyde vapour is inhaled, remove person to fresh air and keep warm, if necessary summon physician.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant symptoms are expected due to the non-classification of the product.

Hazards: No hazard is expected under intended use and appropriate handling.

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

Treatment: Treat symptomatically.

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## SECTION 5: Fire-Fighting Measures

### 5.1. Extinguishing media

Suitable extinguishing media:

dry powder, water spray, foam, carbon dioxide

Additional information:

Water spray for suppression (heat dissipation) of incipient fires as long as the product has not yet ignited.

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

At temperatures of  $> 200\text{ }^{\circ}\text{C}$  can be emitted: formaldehyde...%, harmful vapours

### 5.3. Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## SECTION 6: Accidental Release Measures

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

Avoid dust formation.

### 6.2. Environmental precautions

Suppress gases/vapours/mists with water spray jet. Wet down dust with water spray jet.

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

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

### 6.4. Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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## SECTION 7: Handling and Storage

### 7.1. Precautions for safe handling

Avoid dust formation. Upon mechanical load the product can release sensitizing substances.

Protection against fire and explosion:

Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

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

Suitable materials for containers: Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, High density polyethylene (HDPE), Carbon steel (Iron)

Further information on storage conditions: Keep container dry.

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

Protect from temperatures above: 200 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

### 7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

#### Components with occupational exposure limits

7439-89-6: Iron

7439-98-7: Molybdenum

7440-47-3: Chromium

TWA value 2 mg/m<sup>3</sup> (OEL (EU))  
indicative

7440-02-0: nickel powder [particle diameter < 1 mm]

#### Components with PNEC

7439-89-6: Iron

A PNEC could not be derived as no studies have been performed. The product is a naturally occurring substance, whose molecular structure is not supposed to have harmful effects.

7440-02-0: nickel

freshwater: 0.0036 mg/l

marine water: 0.0086 mg/l

STP: 0.33 mg/l

sediment (marine water):

No PNEC value available.

sediment (freshwater):

No PNEC value available.

7440-47-3: Chromium

sediment (freshwater): 205.7 mg/kg

freshwater: 0.0065 mg/l

soil: 21.1 mg/kg

#### Components with DNEL

7439-89-6: Iron

worker: Long-term exposure - local effects, Inhalation: 3 mg/m<sup>3</sup>

consumer: Long-term exposure - systemic effects, oral: 0.71 mg/kg

consumer: Long-term exposure - local effects, Inhalation: 1.5 mg/m<sup>3</sup>

7440-02-0: nickel

worker: Long-term exposure - systemic and local effects, Inhalation: 0.05 mg/m<sup>3</sup>

worker: Short-term exposure - systemic effects, Inhalation: 680 mg/m<sup>3</sup>

worker: Short-term exposure - local effects, Inhalation: 4 mg/m<sup>3</sup>

worker: Long-term exposure - local effects, dermal: 0.07 mg/cm<sup>2</sup>

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consumer: Short-term exposure - systemic effects, Inhalation: 408 mg/m<sup>3</sup>

consumer: Short-term exposure - systemic effects, oral: 0.012 mg/kg

consumer: Short-term exposure - local effects, Inhalation: 2.4 mg/m<sup>3</sup>

consumer: Long-term exposure - systemic and local effects, Inhalation: 0.00002 mg/m<sup>3</sup>

consumer: Long-term exposure- systemic effects, oral: 0.02 mg/kg

consumer: Long-term exposure - local effects, dermal: 0.07 mg/cm<sup>2</sup>

7440-47-3: Chromium

worker: Long-term exposure - local effects, Inhalation: 0.5 mg/m<sup>3</sup>

consumer: Long-term exposure - local effects, Inhalation: 0.027 mg/m<sup>3</sup>

## 8.2. Exposure controls

### Personal protective equipment

Respiratory protection:

Breathing protection if gases/vapours are formed. Gas filter for gases/vapours of inorganic compounds (e.g. EN 14387 Type B) Breathing protection if dusts are formed. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Wear chemical resistant protective gloves.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

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

Wearing of closed work clothing is recommended. 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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## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

Form:	granules
Colour:	grey
Odour:	odourless
pH value:	
Melting point:	not applicable, not soluble
:	165 °C

The product is a non-volatile solid.

Evaporation rate:	negligible, not applicable
Flammability:	not self-igniting
Lower explosion limit:	No data available., For solids not relevant for classification and labelling.
Upper explosion limit:	No data available., For solids not relevant for classification and labelling.
Ignition temperature:	450 °C
Vapour pressure:	negligible, not applicable
Density:	5.3 - 5.8 g/cm <sup>3</sup> (20 °C)
Solubility in water:	insoluble
Partitioning coefficient n-octanol/water (log Kow):	not applicable for mixtures
Self ignition:	not self-igniting
Thermal decomposition:	> 200 °C
Viscosity, dynamic:	not applicable, the product is a solid
Viscosity, kinematic:	not applicable, the product is a solid
Explosion hazard:	Product is not explosive, however a dust explosion could result from an air / dust mixture.
Fire promoting properties:	not fire-propagating

## 9.2. Other information

Self heating ability:	It is not a substance capable of spontaneous heating.
Radioactivity:	not radioactive for transport purposes
Bulk density:	2,800 - 3,200 kg/m <sup>3</sup>
Hygroscopy:	Non-hygroscopic
Solids content:	> 90 %

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

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

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Corrosion to metals:	not applicable Corrosive effects to metal are not anticipated.	
Reactions with water/air:	Reaction with:	air
	Flammable gases:	no
	Toxic gases:	no
	Corrosive gases:	no
	Smoke or fog:	no
	Peroxides:	no
	Reaction with:	water
	Flammable gases:	no
	Toxic gases:	no
	Corrosive gases:	no
	Smoke or fog:	no
	Peroxides:	no
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

**10.2. Chemical stability**

The product is stable if stored and handled as prescribed/indicated.  
depolymerizes at elevated temperatures

**10.3. Possibility of hazardous reactions**

Strong exothermic reaction with acids. May decompose violently.

**10.4. Conditions to avoid**

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged exposure to extreme heat.

**10.5. Incompatible materials**

Substances to avoid:

inorganic acids, plastics containing halogenated flame retardants

**10.6. Hazardous decomposition products**

Hazardous decomposition products:

formaldehyde...%

**SECTION 11: Toxicological Information****11.1. Information on toxicological effects**Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion.



Irritation

Assessment of irritating effects:  
May cause mechanical irritation.

*Information on: Iron**Assessment of irritating effects:*

*Not irritating to the skin. Not irritating to the eyes. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.*

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Respiratory/Skin sensitization

Assessment of sensitization:  
Study not necessary due to exposure considerations.

*Information on: nickel**Assessment of sensitization:*

*Sensitization after skin contact possible.*

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Germ cell mutagenicity*Information on: Iron**Assessment of mutagenicity:*

*Most of the results from the available studies show no evidence of a mutagenic effect.*

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Carcinogenicity*Information on: nickel**Assessment of carcinogenicity:*

*The results of various animal studies gave no indication of a carcinogenic effect. IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans).*

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Reproductive toxicity*Information on: Iron**Assessment of reproduction toxicity:*

*No data available. The chemical structure does not suggest a specific alert for such an effect.*

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Developmental toxicity*Information on: Iron**Assessment of teratogenicity:*

*No data available. The chemical structure does not suggest a specific alert for such an effect.*

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Specific target organ toxicity (single exposure)

Remarks: Based on available Data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

*Information on: nickel*

*Assessment of repeated dose toxicity:*

*The substance may cause damage to the lung after repeated inhalation.*

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Aspiration hazard

Not relevant.

Other relevant toxicity information

The product has not been tested. The statement has been derived from the properties of the individual components. The product has been assessed on the basis of the components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected. 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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**SECTION 12: Ecological Information****12.1. Toxicity**

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

*Information on: Chromium*

*Assessment of aquatic toxicity:*

*There is a high probability that the product is not acutely harmful to aquatic organisms.*

*No toxic effects occur within the range of solubility.*

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**12.2. Persistence and degradability**

Assessment biodegradation and elimination (H<sub>2</sub>O):

The product is not very soluble in water and can thus be removed from water mechanically in suitable effluent treatment plants.

*Information on: Chromium*

*Assessment biodegradation and elimination (H<sub>2</sub>O):*

*Not applicable for inorganic substances.*

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### 12.3. Bioaccumulative potential

Bioaccumulation potential:

The product has not been tested. Because of the product's consistency and low water solubility, bioavailability is improbable.

*Information on: Chromium*

*Assessment bioaccumulation potential:*

*May be accumulated in organisms.*

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### 12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: Adsorption to solid soil phase is possible.

### 12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling PBT (persistent/bioaccumulative/toxic) criteria.

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): Not fulfilling vPvB (very persistent/very bioaccumulative) criteria.

### 12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

### 12.7. Additional information

The product contains:

The product contains the heavy metals listed in Section 3 and/or Section 8, which are fixed in a polymer matrix.

Add. remarks environm. fate & pathway:

The product has not been tested. The statements on environmental fate and pathway have been derived from the properties of the individual components.

Other ecotoxicological advice:

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components. The product has been assessed on the basis of the components' available data. To some extent data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not to be expected.

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## SECTION 13: Disposal Considerations

### 13.1. Waste treatment methods

Check for possible recycling.

Must be disposed of by special means, e.g. suitable dumping after chemical/physical pretreatment (consolidation).

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

Uncleaned empties should be disposed of in the same manner as the contents.

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## SECTION 14: Transport Information

### Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Inland waterway transport

ADN

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable

Environmental hazards: Not applicable  
 Special precautions for user: None known

Transport in inland waterway vessel

Not evaluated

**Sea transport**

## IMDG

Not classified as a dangerous good under transport regulations

UN number: Not applicable  
 UN proper shipping name: Not applicable  
 Transport hazard class(es): Not applicable  
 Packing group: Not applicable  
 Environmental hazards: Not applicable  
 Special precautions for user: None known

**Air transport**

## IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number: Not applicable  
 UN proper shipping name: Not applicable  
 Transport hazard class(es): Not applicable  
 Packing group: Not applicable  
 Environmental hazards: Not applicable  
 Special precautions for user: None known

**14.1. UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

**14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

**14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

**14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### 14.5. Environmental hazards

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### 14.6. Special precautions for user

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

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## SECTION 15: Regulatory Information

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

#### Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 27

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

### 15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

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## SECTION 16: Other Information

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Skin Sens.	Skin sensitization
Carc.	Carcinogenicity
STOT RE	Specific target organ toxicity — repeated exposure
Aquatic Chronic	Hazardous to the aquatic environment - chronic
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

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The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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