



## Technical Data Sheet

03/2016

### **Doka-OptiX** Release agent for concrete

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Processing temperature:	Can be sprayed at temperatures as low as approx. -4 °C
Waiting time:	As the water in the blend evaporates, the emulsion breaks and is converted from a milky liquid into a firm transparent film. The facing can subsequently used for concrete rendering. Protect facing against contamination if waiting times are prolonged.
Cleaning the device:	The substance can be washed off with water as long as it is in a white liquid condition. Once the emulsion has been broken, use standard grease solvents to clean it off.
Storage:	Store in original packaging, tightly closed at temperatures of no less than -4 °C. Storage class 12 (FRG)
Shelf life:	About 12 months

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Hazard information and safety recommendations:	No special hazards. Not classified as hazardous for the processor/handler.
Transportation:	Doka-OptiX is not classified as a dangerous product.
Disposal:	Dispose product residue with an authorized waste collection service. Waste code number 12503 pursuant to ÖNORM S 2100. European waste catalog: 13 08 02 Recycle completely empty packaging material.
Measures to take in the event of an accident:	Pick up with a liquid binding material. Prevent liquid from entering bodies of water. Water hazard class (WGK): 1 minor hazard for water

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

### 1.1. Product identifier

Product form : Mixture  
Product code : 6067\_13280  
Type of product : based on vegetable oils (emulsion)

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Concrete release agent

#### 1.2.2. Uses advised against

No additional information available

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

Ecoratio Europe B.V.  
Industrieweg 161  
3044 AS Rotterdam - The Netherlands  
T +31 8822 4440  
[office@ecoratio.com](mailto:office@ecoratio.com) - [www.ecoratio.com](http://www.ecoratio.com)

### 1.4. Emergency telephone number

No additional information available

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Child-resistant fastening : No  
Tactile warning : No

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of REACH annex II

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).  
First-aid measures after inhalation : Allow breathing of fresh air. Allow the victim to rest.  
First-aid measures after skin contact : Wash hands and other exposed areas with soap and water before leaving work.

First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.  
First-aid measures after ingestion : Rinse mouth out with water.

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

Symptoms/injuries : None to our knowledge.

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

No additional information available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.  
Unsuitable extinguishing media : Do not use a heavy water stream.

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

No additional information available

#### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : Collect spillage. Take up liquid spill into absorbent material.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Storage conditions : Storage > -15°C. Use container to collect drips. Keep only in the original container in a cool, well ventilated place away from : Keep away from open flames, hot surfaces and sources of ignition. Keep container closed when not in use.  
Incompatible products : Strong bases. Strong acids.  
Incompatible materials : Sources of ignition.  
Packaging materials : Only store product in original container.

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection	: protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Normal overalls
Respiratory protection	: No special measures required
Other information	: Do not eat, drink or smoke during use.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: White.
Odour	: Slight.
Odour threshold	: No data available
pH	: 9
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: -5 °C
Boiling point	: 100 °C
Flash point	: > 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,97 kg/l
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: 1 mm <sup>2</sup> /s (40 °C)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

VOC content	: 5 - 10 %
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

None under normal conditions.

### 10.4. Conditions to avoid

Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Vapour. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

DOKA OPTIX	
LD50 oral	> 2000 mg/kg
Additional information	Reference has been taken from the data of a similar product

Skin corrosion/irritation : Not classified  
Based on available data, the classification criteria are not met  
pH: 9

Serious eye damage/irritation : Not classified  
Based on available data, the classification criteria are not met  
pH: 9

Respiratory or skin sensitisation : Not classified  
Based on available data, the classification criteria are not met

Germ cell mutagenicity : Not classified  
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified  
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified  
Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : Not classified  
Based on available data, the classification criteria are not met

Specific target organ toxicity (repeated exposure) : Not classified  
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified  
Based on available data, the classification criteria are not met

DOKA OPTIX	
Viscosity, kinematic	1 mm <sup>2</sup> /s (40 °C)

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : No known adverse effects on the functioning of water treatment plants under normal use conditions as recommended.

DOKA OPTIX	
LC50 fish 1	Not toxic to water organisms
Additional information	Reference has been taken from the data of a similar product

### 12.2. Persistence and degradability

DOKA OPTIX	
Persistence and degradability	Reference has been taken from the data of a similar product.
Biodegradation	Readily biodegradable

### 12.3. Bioaccumulative potential

DOKA OPTIX	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

Additional information : Avoid release to the environment

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

Not regulated for transport

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable  
Proper Shipping Name (ADN) : Not applicable  
Proper Shipping Name (RID) : Not applicable

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

##### ADR

Transport hazard class(es) (ADR) : Not applicable

##### IMDG

Transport hazard class(es) (IMDG) : Not applicable

##### IATA

Transport hazard class(es) (IATA) : Not applicable

##### ADN

Transport hazard class(es) (ADN) : Not applicable

##### RID

Transport hazard class(es) (RID) : Not applicable

#### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable  
Packing group (ADN) : Not applicable  
Packing group (RID) : Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

#### 14.6. Special precautions for user

##### - Overland transport

No data available

##### - Transport by sea

No data available

##### - Air transport

No data available

### - Inland waterway transport

No data available

### - Rail transport

No data available

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

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 5 - 10 %

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect Level
DNEL	Derived-No Effect Level
DPD	Dangerous Preparations Directive 1999/45/EC
DSD	Dangerous Substances Directive 67/548/EEC
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rai
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative



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# DOKA OPTIX

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its  
amendment Regulation (EC) No. 453/2010



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Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

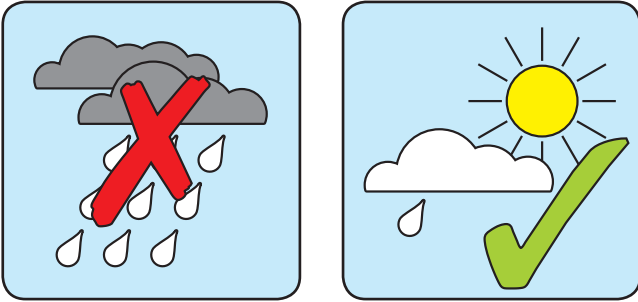
Other information : None.

Ecoratio SDS EU (REACH annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*

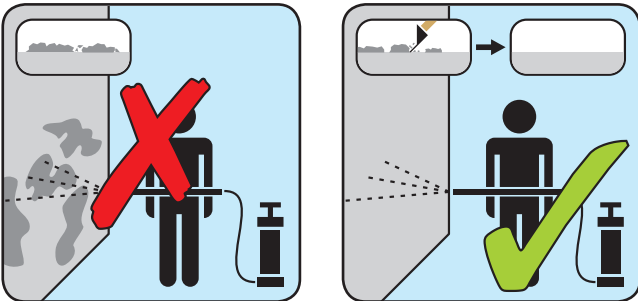
# Brief instructions for use, Doka-OptiX

## 1. Do not apply release agent in the rain!



- Do not apply Doka-OptiX in the rain.
- Doka-OptiX can be applied when drizzle is falling if the formwork is dry.
- The spray-applied coat of release agent becomes rainproof when Doka-OptiX has de-aerated (i.e. when its colour has changed from white to transparent).

## 3. Spray only on to clean, dry formwork!



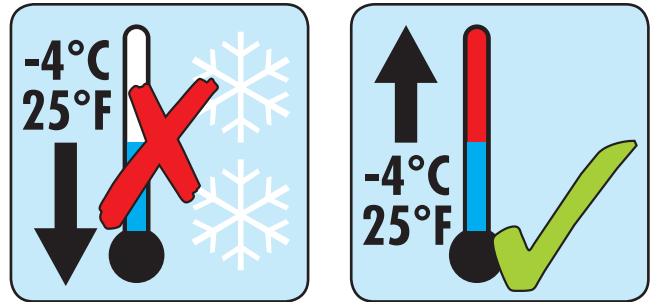
- Before spray-applying Doka-OptiX, remove all traces of foreign matter and concrete residues from the formwork.
- Make sure that the surface of the formwork is dry before you apply Doka-OptiX.

## 5. Do not apply too much release agent - no runs!



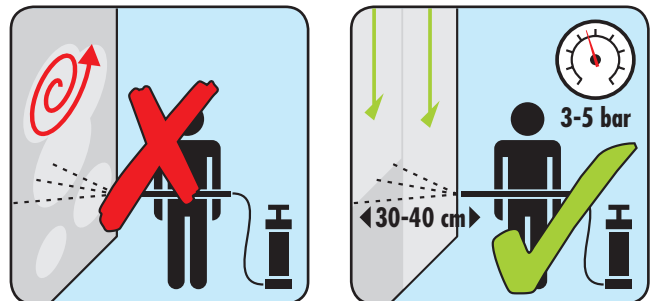
- Keep the spray mist as thin and uniform as possible throughout application. Apply as liberally as necessary and as sparingly as possible. Absorbent formwork sheeting has to be coated more liberally with release agent.
- Do not allow the release agent to run or streak. Applying a thin coat to the formwork when it is flat on the ground is a good way of preventing the release agent from running.

## 2. Do not use at ambient temperatures $\leq -4^{\circ}\text{C} / 25^{\circ}\text{F}$ !



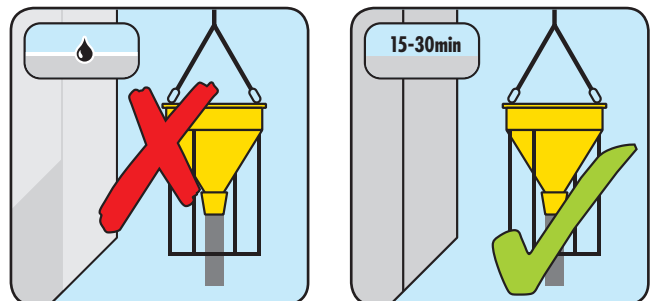
- Use Doka-OptiX only at temperatures higher than  $-4^{\circ}\text{C} / 25^{\circ}\text{F}$ . Doka-OptiX cannot de-aerate if the emulsion freezes after being sprayed on to the surface.
- On site in cold conditions, always keep the container inside a heated site hut.

## 4. Spray on a uniformly thin coating pass by pass!



- Apply Doka-OptiX with a Doka release-agent spray applicator fitted with a flat-spray nozzle, working at a pressure of 3-5 bar and maintaining a distance of 30-40 cm between the nozzle and the formwork sheeting.
- Apply Doka-OptiX uniformly, advancing in regular passes. Make sure that the film of release agent is thin and uniform.
- Wipe off excess of release agent.
- Go back and respray areas that remain dry after the initial application.
- After spraying on release agent, protect the formwork against foreign matter.

## 6. Wait for the Doka-OptiX film to turn transparent before concreting!



- Do not start concreting until the film of release agent has lost its whiteness and can no longer be seen. This de-aeration process generally takes 15 - 30 minutes to complete.
- De-aeration can take longer when relative humidity is high.