

# Safety data sheet

Page: 1/21

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

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

### 1.1. Product identifier

**CAPALO**

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

Relevant identified uses: crop protection product, fungicide

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

Company:BASF SE  
67056 Ludwigshafen  
GERMANYContact address:BASF plc  
PO Box 4, Earl Road, Cheadle Hulme,  
Cheadle, Cheshire  
SK8 6QG, UNITED KINGDOM

Telephone: +44 161 485-6222

E-mail address: product-safety-north@basf.com

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

---

## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]| Skin Corr./Irrit. 2  
| Eye Dam./Irrit. 2  
| Skin Sens. 1

BASF Safety data sheet according to Regulation (EC) No. 1907/2006  
Date / Revised: 02.09.2014  
Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Carc. 2  
Repr. 1B  
Aquatic Chronic 2

According to Directive 67/548/EEC or 1999/45/EC

Carc. Cat. 3  
Repr. Cat. 2  
Repr. Cat. 3

Possible Hazards:

Irritating to skin.

Limited evidence of a carcinogenic effect.

May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Possible risk of impaired fertility.

May cause harm to the unborn child.

For the classifications not written out in full in this section the full text can be found in section 16.

## 2.2. Label elements

Globally Harmonized System (GHS) in accordance with UK regulations.

Pictogram:



Signal Word:

Danger

Hazard Statement:

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.
H360Df	May damage the unborn child. Suspected of damaging fertility.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary Statements (Prevention):

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

P261	Avoid breathing mist.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash contaminated body parts thoroughly after handling.
P280	Wear protective gloves/clothing/eye protection.

## 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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER or doctor/physician.
P303 + P362	IF ON SKIN (on hair): Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash before reuse.
P391	Collect spillage.
P337 + P311	If eye irritation persists: Call a POISON CENTER or doctor/physician.

## Precautionary Statements (Storage):

P405	Store locked up.
------	------------------

## Precautionary Statements (Disposal):

P501	Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
------	---

## Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-BENZISOTHIAZOL-3(2H)-ONE

According to Directive 67/548/EEC or 1999/45/EC

Classification/labelling in accordance with UK regulations.

## Hazard symbol(s)

N Dangerous for the environment.



T Toxic.



## R-phrases(s)

R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitization by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R61	May cause harm to the unborn child.

## S-phrases(s)

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

S2	Keep out of the reach of children.
S13	Keep away from food, drink and animal feeding stuffs.
S35	This material and its container must be disposed of in a safe way.
S36/37	Wear suitable protective clothing and gloves.
S46	If swallowed, seek medical advice immediately and show this container or label.
S57	Use appropriate container to avoid environmental contamination.
S20/21	When using do not eat, drink or smoke.

The product contains: 1,2-BENZISOTHIAZOL-3(2H)-ONE  
May produce an allergic reaction.

### 2.3. Other hazards

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

See section 12 - Results of PBT and vPvB assessment.

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.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

#### Chemical nature

crop protection product, fungicide, Suspo-emulsion (SE)

#### Hazardous ingredients (GHS)

according to Regulation (EC) No. 1272/2008

| fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine

Content (W/W): 19.4 %

CAS Number: 67564-91-4

EC-Number: 266-719-9

INDEX-Number: 613-124-00-0

Acute Tox. 4 (oral)

Skin Corr./Irrit. 2

Repr. 2 (unborn child)

Aquatic Chronic 2

H315, H302, H361d, H411

Metrafenone

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Content (W/W): 7.3 %	Aquatic Acute 1
CAS Number: 220899-03-6	Aquatic Chronic 2 H400, H411

| Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane

Content (W/W): 6.1 %	Carc. 2
CAS Number: 133855-98-8	Repr. 2 (fertility)
EC-Number: 406-850-2	Repr. 1B (unborn child)
INDEX-Number: 613-175-00-9	Aquatic Chronic 2 H351, H360Df, H411

Oxirane, methyl-, polymer with oxirane, monoisotridecyl ether, block

Content (W/W): < 15 %	Eye Dam./Irrit. 2
CAS Number: 196823-11-7	H319

| 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one

Content (W/W): < 0.05 %	Acute Tox. 4 (oral)
CAS Number: 2634-33-5	Skin Corr./Irrit. 2
EC-Number: 220-120-9	Eye Dam./Irrit. 1
INDEX-Number: 613-088-00-6	Skin Sens. 1
	Aquatic Acute 1 H318, H315, H302, H317, H400

Specific concentration limit:

Skin Sens. 1: >= 0.05 %

| 3-(p-tert-Butylphenyl)-2-methylpropanol

Content (W/W): < 0.5 %	Aquatic Chronic 2
CAS Number: 56107-04-1	H411
EC-Number: 259-996-2	

| 2-(4-tert-Butylbenzyl)propionaldehyde

Content (W/W): < 0.5 %	Acute Tox. 4 (oral)
CAS Number: 80-54-6	Skin Corr./Irrit. 2
EC-Number: 201-289-8	Skin Sens. 1B
REACH registration number: 01-2119485965-18	Repr. 2 (fertility)
	Aquatic Chronic 2 H315, H302, H317, H361f, H411

Soybean oil

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Content (W/W): < 10 %  
CAS Number: 8001-22-7  
EC-Number: 232-274-4

**Propane-1,2-diol**

Content (W/W): < 5 %  
CAS Number: 57-55-6  
EC-Number: 200-338-0  
REACH registration number: 01-2119456809-23

Hazardous ingredients

according to Directive 1999/45/EC

**| fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine**

Content (W/W): 19.4 %  
CAS Number: 67564-91-4  
EC-Number: 266-719-9  
INDEX-Number: 613-124-00-0  
Hazard symbol(s): Xn, N  
R-phrases: 22, 38, 63, 51/53  
Repr. Cat. 3

**| Metrafenone**

Content (W/W): 7.3 %  
CAS Number: 220899-03-6  
Hazard symbol(s): N  
R-phrases: 50/53

**| Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane**

Content (W/W): 6.1 %  
CAS Number: 133855-98-8  
EC-Number: 406-850-2  
INDEX-Number: 613-175-00-9  
Hazard symbol(s): T, N  
R-phrases: 40, 61, 62, 51/53  
Carc. Cat. 3  
Repr. Cat. 2  
Repr. Cat. 3

**| Oxirane, methyl-, polymer with oxirane, monoisotridecyl ether, block**

Content (W/W): < 15 %  
CAS Number: 196823-11-7  
Hazard symbol(s): Xi  
R-phrases: 36/38

**| 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one**

Content (W/W): < 0.05 %

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

CAS Number: 2634-33-5  
EC-Number: 220-120-9  
INDEX-Number: 613-088-00-6  
Hazard symbol(s): Xn, N  
R-phrases(s): 22, 38, 41, 43, 50

**| 3-(p-tert-Butylphenyl)-2-methylpropanol**

Content (W/W): < 0.5 %  
CAS Number: 56107-04-1  
EC-Number: 259-996-2  
Hazard symbol(s): N, Xi  
R-phrases(s): 51/53, 38

**| 2-(4-tert-Butylbenzyl)propionaldehyde**

Content (W/W): < 0.5 %  
CAS Number: 80-54-6  
EC-Number: 201-289-8  
REACH registration number: 01-2119485965-18  
Hazard symbol(s): N, Xn, Xi  
R-phrases(s): 22, 38, 43, 62, 51/53

**| Soybean oil**

Content (W/W): < 10 %  
CAS Number: 8001-22-7  
EC-Number: 232-274-4

**| Propane-1,2-diol**

Content (W/W): < 5 %  
CAS Number: 57-55-6  
EC-Number: 200-338-0  
REACH registration number: 01-2119456809-23

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

---

**SECTION 4: First-Aid Measures****4.1. Description of first aid measures**

Show container, label and/or safety data sheet to physician.

**|** Remove contaminated clothing.

If inhaled:

**|** Keep patient calm, remove to fresh air, seek medical attention.

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, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

#### **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) and/or in section 11., Further important symptoms and effects are so far not known.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

---

## **SECTION 5: Fire-Fighting Measures**

### **5.1. Extinguishing media**

Suitable extinguishing media:

water spray, carbon dioxide, foam, dry powder

Unsuitable extinguishing media for safety reasons:

water jet

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

carbon monoxide, Carbon dioxide, hydrogen chloride, hydrogen fluoride, hydrogen bromide, nitrogen oxides, sulfur oxides, organochloric compounds

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

### **5.3. Advice for fire-fighters**

Special protective equipment:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

---

## **SECTION 6: Accidental Release Measures**

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

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

### **6.2. Environmental precautions**



Do not allow contamination of public drains or surface or ground waters. Inform local water plc if spillage enters drains and the Environment Agency (England & Wales), the Scottish Environmental Protection Agency (Scotland), or the Environment and Heritage Service (Northern Ireland) if it enters surface or ground waters. Keep people and animals away.

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

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Dike spillage. Pump off product.

Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Wear suitable protective equipment.

### **6.4. Reference to other sections**

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

---

## **SECTION 7: Handling and Storage**

### **7.1. Precautions for safe handling**

No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift. Remove contaminated clothing and protective equipment before entering eating areas.

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

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

Segregate from foods and animal feeds.

Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Protect from temperatures below: -5 °C

The product can crystallize below the limit temperature.

Protect from temperatures above: 40 °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.

---

## **SECTION 8: Exposure Controls/Personal Protection**

### **8.1. Control parameters**

### Components with occupational exposure limits

57-55-6: Propane-1,2-diol

TWA value 10 mg/m<sup>3</sup> (WEL/EH 40 (UK)), Particulate

TWA value 474 mg/m<sup>3</sup> ; 150 ppm (WEL/EH 40 (UK)), Total vapour and particulates

57-55-6: Propane-1,2-diol

TWA value 10 mg/m<sup>3</sup> (WEL/EH 40 (UK)), Particulate

TWA value 474 mg/m<sup>3</sup> ; 150 ppm (WEL/EH 40 (UK)), Total vapour and particulates

133855-98-8: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane

TWA value 0.3 mg/m<sup>3</sup> (Recommendation of BASF), Respirable dust

Refer to the current edition of HSE Guidance Note EH40 Occupational Exposure Limits (United Kingdom). For normal use and handling refer to the product label/leaflet. In all other cases the following apply.

## **8.2. Exposure controls**

### Personal protective equipment

Respiratory protection:

Suitable respiratory protection for lower concentrations or short-term effect: Combination filter for gases/vapours of organic, inorganic, acid inorganic, alkaline compounds and toxic particles (e. g. EN 14387 Type ABEK-P3)

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) and other

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

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

## SECTION 9: Physical and Chemical Properties

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

Form:	suspension	
Colour:	white	
Odour:	faint odour, sweetish	
Odour threshold:	Not determined due to potential health hazard by inhalation.	
pH value:	approx. 6.5 - 8.5 (20 °C) (measured with the undiluted substance)	(pH Meter)
crystallization temperature:	-2.9 °C	(measured)
Boiling point:	approx. 100 °C Information applies to the solvent.	(measured)
Flash point:	No flash point - Measurement made up to the boiling point.	(Directive 92/69/EEC, A.9)
Evaporation rate:	not applicable	
Flammability:	not highly flammable	(Directive 92/69/EEC, A.12)
Lower explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Upper explosion limit:	As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use.	
Ignition temperature:	405 °C	(Directive 92/69/EEC, A.15)
Vapour pressure:	approx. 23 hPa (20 °C) Information applies to the solvent.	
Density:	approx. 1.03 g/cm <sup>3</sup> (20 °C)	(OECD Guideline 109)
Relative vapour density (air):	not applicable	
Solubility in water:	dispersible	
Partitioning coefficient n-octanol/water (log Kow):	not applicable	
Thermal decomposition:	approx. 310 °C, 330 kJ/kg (DSC (OECD 113)) (onset temperature)	

BASF Safety data sheet according to Regulation (EC) No. 1907/2006  
Date / Revised: 02.09.2014  
Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

Viscosity, dynamic: approx. 148 mPa.s (20 °C, 100 1/s) (OECD 114)

Explosion hazard: not explosive (Directive 92/69/EEC, A.14)

Fire promoting properties: not fire-propagating (UN Test O.2 (oxidizing liquids))

## 9.2. Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

---

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

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

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

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

### 10.4. Conditions to avoid

See MSDS section 7 - Handling and storage.

### 10.5. Incompatible materials

Substances to avoid:

strong oxidizing agents, strong bases, strong acids

### 10.6. Hazardous decomposition products

Hazardous decomposition products:

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

---

## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation.

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Experimental/calculated data:

LD50 rat (oral): > 2,000 mg/kg

No mortality was observed.

LC50 rat (by inhalation): > 5.3 mg/l 4 h

An aerosol was tested.

LD50 rat (dermal): > 5,000 mg/kg

#### Irritation

Assessment of irritating effects:

Skin contact causes irritation. May cause slight irritation to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: Irritant. (OECD Guideline 404)

Serious eye damage/irritation rabbit: Irritant. (OECD Guideline 405)

#### Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible.

Experimental/calculated data:

Mouse Local Lymph Node Assay (LLNA) mouse: Caused skin sensitization in animal studies. (OECD Guideline 429)

#### Germ cell mutagenicity

Assessment of mutagenicity:

The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

#### Carcinogenicity

Assessment of carcinogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Metrafenone*

*Assessment of carcinogenicity:*

*When given in high doses, the substance was carcinogenic in animal studies. Based on its mechanism of action, a carcinogenic potential is not expected after exposure to low doses.*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

*Assessment of carcinogenicity:*

*Indication of possible carcinogenic effect in animal tests.*

-----

### Reproductive toxicity

#### Assessment of reproduction toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

#### *Assessment of reproduction toxicity:*

*The results of animal studies suggest a fertility impairing effect.*

| *Information on: 2-(4-tert-Butylbenzyl)propionaldehyde*

#### *Assessment of reproduction toxicity:*

| *The substance may cause damage to the testes after repeated ingestion, as shown in animal studies.*

### Developmental toxicity

#### Assessment of teratogenicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine*

#### *Assessment of teratogenicity:*

*Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

#### *Assessment of teratogenicity:*

| *EU-classification The substance caused malformations/developmental toxicity in laboratory animals.*

*Indications of possible developmental toxicity/teratogenicity were seen in animal studies.*

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

#### Assessment of repeated dose toxicity:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine*

#### *Assessment of repeated dose toxicity:*

*Adaptive effects were observed after repeated exposure in animal studies.*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

#### *Assessment of repeated dose toxicity:*

*Repeated exposure to large quantities may affect certain organs.*

BASF Safety data sheet according to Regulation (EC) No. 1907/2006  
Date / Revised: 02.09.2014  
Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

| *Information on: 2-(4-tert-Butylbenzyl)propionaldehyde*  
| *Assessment of repeated dose toxicity:*  
*The substance may cause damage to the liver after repeated ingestion.*

#### Other relevant toxicity information

Misuse can be harmful to health.

---

## SECTION 12: Ecological Information

### 12.1. Toxicity

Assessment of aquatic toxicity:  
Acutely toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Toxicity to fish:  
LC50 (96 h) 7.1 mg/l, *Oncorhynchus mykiss* (OECD 203; ISO 7346; 84/449/EEC, C.1, static)

Aquatic invertebrates:  
EC50 (48 h) 5.9 mg/l, *Daphnia magna* (OECD Guideline 202, part 1)

Aquatic plants:  
EC50 (72 h) 3.75 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201)  
EC10 (72 h) 0.30 mg/l (growth rate), *Pseudokirchneriella subcapitata* (OECD Guideline 201)

### 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):  
The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine*  
*Assessment biodegradation and elimination (H<sub>2</sub>O):*  
*Poorly biodegradable.*

| *Information on: Metrafenone*  
| *Assessment biodegradation and elimination (H<sub>2</sub>O):*  
| *Not readily biodegradable (by OECD criteria).*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*  
*Assessment biodegradation and elimination (H<sub>2</sub>O):*  
*Not readily biodegradable (by OECD criteria).*  
| -----

### 12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine*

*Bioaccumulation potential:*

*Bioconcentration factor: 1,169 - 1,220, Oncorhynchus mykiss (OECD-Guideline 305)*

*Significant accumulation in organisms is not to be expected.*

*Information on: Metrafenone*

*Bioaccumulation potential:*

*Bioconcentration factor: 140 - 180 (42 d), Lepomis macrochirus (OECD Guideline 305 E)*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

*Bioaccumulation potential:*

*Bioconcentration factor: 59 - 70, Oncorhynchus mykiss (OECD-Guideline 305)*

*Does not accumulate in organisms.*

#### **12.4. Mobility in soil**

Assessment transport between environmental compartments:

Adsorption in soil: The product has not been tested. The statement has been derived from the properties of the individual components.

*Information on: fenpropimorph; cis-4-[3-(p-tert-butylphenyl)-2-methylpropyl]-2,6-dimethylmorpholine*

*Assessment transport between environmental compartments:*

*Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

*Information on: Metrafenone*

*Assessment transport between environmental compartments:*

*Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

*Information on: Epoxiconazole; (2RS,3SR)-3-(2-chlorophenyl)-2-(4-fluorophenyl)-[(1H-1,2,4-triazol-1-yl)methyl]oxirane*

*Assessment transport between environmental compartments:*

*Adsorption in soil: Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

#### **12.5. Results of PBT and vPvB assessment**

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

#### **12.6. Other adverse effects**



BASF Safety data sheet according to Regulation (EC) No. 1907/2006  
 Date / Revised: 02.09.2014  
 Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

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

Other ecotoxicological advice:

| Do not discharge product into the environment without control.

## SECTION 13: Disposal Considerations

### 13.1. Waste treatment methods

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

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).

This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Contaminated packaging:

Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.

## SECTION 14: Transport Information

### Land transport

ADR

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FENPROPIMORPH, EPOXICONAZOLE, METRAFENONE)
Transport hazard class(es):	9, EHSM
Packing group:	III
Environmental hazards:	yes
Special precautions for user:	Tunnel code: E

RID

UN number	UN3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FENPROPIMORPH, EPOXICONAZOLE, METRAFENONE)
Transport hazard class(es):	9, EHSM
Packing group:	III

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

Environmental hazards: yes  
Special precautions for user: None known

**Inland waterway transport**

ADN

UN number: UN3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FENPROPIMORPH, EPOXICONAZOLE, METRAFENONE)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Special precautions for user: None known  
Transport in inland waterway vessel: Not evaluated

**Sea transport**

IMDG

UN number: UN 3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FENPROPIMORPH, EPOXICONAZOLE, METRAFENONE)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
Marine pollutant: YES  
Special precautions for user: None known

**Air transport**

IATA/ICAO

UN number: UN 3082  
UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains FENPROPIMORPH, EPOXICONAZOLE, METRAFENONE)  
Transport hazard class(es): 9, EHSM  
Packing group: III  
Environmental hazards: yes  
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 MARPOL73/78 and the IBC Code**

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

**Further information**

This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom).

---

**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: 28, 29, 30, 40

To avoid risks to man and the environment, comply with the instructions for use.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

BASF Safety data sheet according to Regulation (EC) No. 1907/2006  
 Date / Revised: 02.09.2014  
 Product: **CAPALO**

Version: 4.0

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

This product is classified under the Chemicals (Hazard Information and Packaging) Regulations, (CHIP) (United Kingdom).

This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

## 15.2. Chemical Safety Assessment

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

## SECTION 16: Other Information

For proper and safe use of this product, please refer to the approval conditions laid down on the product label.

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

Xn	Harmful.
N	Dangerous for the environment.
T	Toxic.
Xi	Irritant.
22	Harmful if swallowed.
38	Irritating to skin.
63	Possible risk of harm to the unborn child.
51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
40	Limited evidence of a carcinogenic effect.
61	May cause harm to the unborn child.
62	Possible risk of impaired fertility.
36/38	Irritating to eyes and skin.
41	Risk of serious damage to eyes.
43	May cause sensitization by skin contact.
50	Very toxic to aquatic organisms.
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Carc.	Carcinogenicity
Repr.	Reproductive toxicity
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute
Carc. Cat. 3	Carcinogenic substances Category 3: Substances which cause concern for man owing to possible carcinogenic effects.
Repr. Cat. 2	Reprotoxic substances (fertility or development) Category 2: Substances which should be regarded as if they cause developmental toxicity to in humans or substances which should be regarded as if they impair fertility in humans.
Repr. Cat. 3	Reprotoxic substances (fertility or development) Category 3: Substances

---

BASF Safety data sheet according to Regulation (EC) No. 1907/2006

Date / Revised: 02.09.2014

Version: 4.0

Product: **CAPALO**

(ID no. 30265287/SDS\_CPA\_GB/EN)

Date of print 03.09.2014

	which cause concern for humans owing to possible developmental toxic effects or substances which cause concern for human fertility.
H315	Causes skin irritation.
H302	Harmful if swallowed.
H361d	Suspected of damaging the unborn child.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.
H351	Suspected of causing cancer.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H319	Causes serious eye irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H361f	Suspected of damaging fertility.

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: [product-safety-north@basf.com](mailto:product-safety-north@basf.com)

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. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

---

Vertical lines in the left hand margin indicate an amendment from the previous version.