

# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

### Product details

**Trade name** : BIO 416  
**Application of the substance / the preparation** : Biocide  
**Manufacturer/Supplier**  
 Pragma Chimica S.r.l.  
 Via dell'Industria, 48/B  
 36071 Arzignano (Vi) – Italia

**Further information obtainable from** : product safety department

**Information in case of emergency** :  
 tel. 0444 451373/0444 450334 – fax. 0444 452153

*For urgent information : Balduzzo Gianluca*  
*Tel. 335 1211835*  
*Mail : luca@pragmachimica.it*

## 2. HAZARD IDENTIFICATION

### Hazard description :



C Corrosive

### Information concerning particular hazards for human and environment :

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 33 Danger of cumulative effects

R 34 Causes burns.

R 43 May cause sensitisation by skin contact.

R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

### Classification system:




The classification is according to the latest edition of the EU-lists, and extended by company and literature data.

## 3. COMPOSITIONS/INFORMATION ON INGREDIENTS

### Chemical characterization

*Description* : mixture of substances listed below with nonhazardous additions.

### Dangerous components:

CAS :55965-84-9	Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-isothiazolin-3-one [EC no. 220-239-6] (3:1) mixture of : 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)	 T,  C,  N; R 23/24/25-33-34-43-50/53	<5.0 %
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#### 4. FIRST AID MEASURES

**After inhalation :** Supply fresh air and to be sure call for a doctor. In case of unconsciousness place patient stably in side position for transportation.

**After skin contact :** immediately wash with water and soap and rinse thoroughly.  
Take off immediately all contaminated clothing.

**After eye contact :** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing :** Rinse out mouth and then drink plenty of water.

#### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing agents :** Water, carbon dioxide, foam

**Special hazards caused by the substance, its products of combustion or resulting gases:**

Carbon monoxide (CO)

Hydrogen chloride (HCl)

Gas nitrous (NO<sub>x</sub>)

Chlorine gas

Oxides of sulphur

**Protective equipment :** wear suitable protective clothing.

#### 6. ACCIDENTAL RELEASE MEASURES

**Person-related safety precautions :** Do not breathe fumes/aerosol. Wear eye/face protection.  
Wear protective clothing.

**Measures for environmental protection :** Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting :** Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust ).

#### 7. HANDLING AND STORAGE

**Handling :**

**Information for safe handling :** wear eye/face protection.

**Information about fire – and explosion protection :** no special measures required.

**Storage :**

**Requirement to be met by storerooms and receptacles :** no special requirements.

**Information about storage in one common storage facility :** not required.

**Further information about storage conditions :**

The product, if stored properly, is stable for 24 months. Store in a cool place.

#### 8. EXPUSURE CONTROLS/PERSONAL PROTECTION

**Additional information about design of technical facilities:** no further data; see item 7.

**Ingredients with limit values that require monitoring at the workplace:** not required.

**Additional information :** the lists valid during the making were used as basis.

**Personal protective equipment :**

**General protective and hygienic measures :** keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the skin.

Avoid contact with the eyes and the skin.

**Respiratory protection :** use suitable respiratory protective device in case of insufficient ventilation.

**Protection of hands** : protective gloves.

**Material of gloves** : neoprene gloves.

**Penetration time of glove material** : the exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection** : goggles recommended during refilling.

**Body protection**: use protective suit.

## 9. PHYSICAL AND CHEMICALS PROPERTIES

<b>General information:</b>	
<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless – yellow
<b>Odour:</b>	Characteristic
<b>Change in condition</b>	
<b>Melting point/melting range:</b>	-1°C
<b>Boiling point/boiling range :</b>	100°C
<b>Flash point:</b>	Not applicable
<b>Self-igniting:</b>	Product is not selfigniting
<b>Danger of explosion:</b>	Product does not present an explosion hazard
<b>Vapor pressure at 20°C:</b>	23 hPa
<b>Density at 20°C:</b>	1.035 g/cm <sup>3</sup>
<b>Solubility in/Miscibility with water:</b>	Fully miscible.
<b>pH-value at 20°C:</b>	3.5

## 10. STABILITY AND REACTIVITY

**Thermal decomposition / conditions to be avoided** : High temperatures and exposure to sunlight product

**Material to be avoided** : strong oxidizing

**Dangerous reactions** : no dangerous reactions known.

**Dangerous decomposition products** : no dangerous decomposition products known.

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

<b>LD/LC50 values relevant for classification:</b>		
<b>55965-84-9</b> Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-hisothiazolin-3-one [EC no. 220-239-6] (3:1) mixture of : 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)		
Oral	LD50	67 mg/kg (rat)
Dermal	LD50	>140 mg/kg (rabbit)
Inhalative	LC50/4 h	0.17 mg/l (rat)

**Primary irritant effect:**

**On the skin:** irritant to skin and mucous membranes.

**On the eye:** irritating effect.

**Sensitization** : sensitization possible through skin contact.

**Additional toxicological information** : the product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

**Sensitization** : May cause sensitisation by skin contact

## 12. ECOLOGICAL INFORMATION

### Ecotoxical effects :

#### Aquatic toxicity

**55965-84-9** Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-hisothiazolin-3-one [EC no. 220-239-6] (3:1) mixture of : 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)

EC 50	0.12 mg/l (daphnia)
EC50/96 h	0.22 mg/l (Oncorhynchus mykiss)
	0.025 mg/l (Selenastrum capricornutum)

### Behaviour in sewage processing plants :

**55965-84-9** Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-hisothiazolin-3-one [EC no. 220-239-6] (3:1) mixture of : 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC no. 220-239-6] (3:1)

EC50/16 h	0.79 mg/l (Pseudomonas putida)
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**General notes:** water hazard class 2 (German Regulation) (Self-assessment) : hazardous for water. Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

## 13. DISPOSAL CONSIDERATIONS

### Product :

**Recommendation** : must not be disposed together with household garbage. Do not allow product to reach sewage system.

**European waste catalogue** : 16 00 00 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

16 03 00 off-specification batches and unused products.

16 03 05 organic wastes containing dangerous substances.

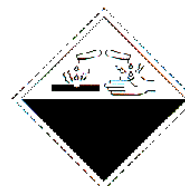
### Uncleaned packaging :

**Recommendation** : disposal must be made according to official regulations.

## 14. TRANSPORT INFORMATION

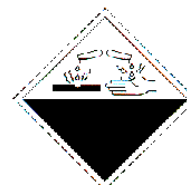
### Land transport ADR/RID (cross-border) :

<b>ADR/RID class:</b>	8 Corrosive substances
<b>Danger code (Kemler):</b>	80
<b>UN-Number:</b>	1760
<b>Packaging group:</b>	III
<b>Hazard label:</b>	8
<b>Description of goods:</b>	3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-Hisothiazolin-3-one [EC no. 220-239-6] (3:1) Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-m)



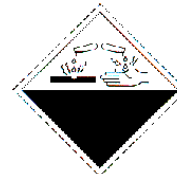
### -Maritime transport IMDG:

<b>IMDG Class:</b>	8
<b>UN/ID Number:</b>	1760
<b>Label:</b>	8
<b>Packaging group:</b>	II
<b>EMS Number:</b>	F-A,S-B
<b>Marine pollutant:</b>	No
<b>Proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-Hisothiazolin-3-one [EC no. 220-239-6] (3:1) Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-m)



**-Air transport ICAO-TI and IATA-DGR:**

<b>ICAO/IATA Class:</b>	8
<b>UN/ID Number:</b>	1760
<b>Label:</b>	8
<b>Packaging group:</b>	II
<b>Proper shipping name:</b>	CORROSIVE LIQUID, N.O.S. (Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazolin-3-one [EC no. 220-239-6] (3:1) Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-m)



<b>15. REGULATORY INFORMATION</b>
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**Labeling according to EU guidelines :** the product has been classified and marked in accordance with 31° adjustment Directive 67/548/CEE .

**Code letter and hazard designation of product :**

C Corrosive

**Risk phrases :**

- 33 Danger of cumulative effects
- 34 Causes burns
- 43 May cause sensitisation by skin contact
- 52/53 Harmful to aquatic organism, may cause long-term adverse effects in the aquatic environment

**Safety phrases :**

- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
- 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

**National regulations :****Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVCH) according to REACH, Article 57** None

<b>16. OTHER INFORMATION</b>
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This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant R-phrases :**

- 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- 33 Danger of cumulative effects.
- 34 Causes burns
- 43 May cause sensitization by skin contact
- 50/53 Very toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment