

## Safety Data Sheet

### AG 15

Safety Data Sheet dated 12/09/2024 version 5



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

### 1.1. Product identifier

Mixture identification:

Trade name: AG 15

Trade code: 903

UFI: WHG2-Y0TT-T003-YUAP

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

Recommended use: Synthetic resin dispersion for cementitious products

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

Company: FASSA Srl

Via Lazzaris, 3 - 31027 Spresiano (TV) - Italy

Tel. +39 0422 7222

Fax +39 0422 887509

Imported in the UK:

FASSA UK LTD

Ashchurch Business Centre,

Alexandra Way, Ashchurch, Tewkesbury GL20 8TD- UK

Tel. +44 (0) 1684.212272

Responsible: laboratorio.spresiano@fassabortolo.it

### 1.4. Emergency telephone number

NHS 111

## SECTION 2: Hazards identification



### 2.1. Classification of the substance or mixture

#### Regulation (EC) n. 1272/2008 (CLP)

Skin Sens. 1 May cause an allergic skin reaction.

Adverse physicochemical, human health and environmental effects:

No other hazards

### 2.2. Label elements

#### Regulation (EC) No 1272/2008 (CLP):

#### Hazard pictograms and Signal Word



Warning

#### Hazard statements

H317 May cause an allergic skin reaction.

#### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P261 Avoid breathing fume/gas/mist/vapours/spray.

P280 Wear protective gloves/clothing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P501 Dispose of contents/container in accordance with national regulation.

#### Contains:

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

2-methylisothiazol-3(2H)-one

1,2-benzisothiazol-3(2H)-one

Special provisions according to Annex XVII of REACH and subsequent amendments:

None.

The product has been classified according to Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%.

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Mixture identification: AG 15

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Numb.	Classification	Registration Number:
≥0.036 - <0.05 %	1,2-benzisothiazol-3(2H)-one	CAS:2634-33-5 EC:220-120-9 Index:613-088-00-6	Acute Tox. 2, H330 Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:1	
			Specific Concentration Limits: C ≥ 0.036%: Skin Sens. 1A H317	
			Acute Toxicity Estimate: ATE - Oral: 450mg/kg bw ATE - Inhalation (Dust/mist): 0.21mg/l	
≥0.005 - <0.025 %	2-methylisothiazol-3(2H)-one	CAS:2682-20-4 EC:220-239-6 Index:613-326-00-9	Acute Tox. 2, H330 Acute Tox. 3, H311 Acute Tox. 3, H301 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410, M-Chronic:1, M-Acute:10, EUH071	
			Specific Concentration Limits: 0.0015% ≤ C < 100%: Skin Sens. 1A H317	
			Acute Toxicity Estimate: ATE - Oral: 120mg/kg bw ATE - Dermal: 300mg/kg bw ATE - Inhalation (Dust/mist): 0.134mg/l	
≥0.00015 - <0.0015 %	reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS:55965-84-9 Index:613-167-00-5	Acute Tox. 2, H310 Acute Tox. 2, H330 Acute Tox. 3, H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410, M-Chronic:100, M-Acute:100, EUH071	
			Specific Concentration Limits: 0.6% ≤ C < 100%: Skin Corr. 1C H314 0.06% ≤ C < 0.6%: Skin Irrit. 2 H315 0.6% ≤ C < 100%: Eye Dam. 1 H318 0.06% ≤ C < 0.6%: Eye Irrit. 2 H319 0.0015% ≤ C < 100%: Skin Sens. 1A H317	
			Acute Toxicity Estimate:	

ATE - Oral: 66mg/kg bw  
ATE - Dermal: 141mg/kg bw  
ATE - Inhalation (Dust/mist):  
0.17mg/l

Classifications according to Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

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## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

In case of skin contact:

Remove contaminated clothing immediately and dispose off safely.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and label hazardous.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

The symptoms and effects are as expected from the hazards as shown in section 2.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

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## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

Suitable extinguishing media:

Product is not flammable.

Extinguishing media which must not be used for safety reasons:

None in particular.

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

Burning produces heavy smoke.

In the event of fire and/or explosion do not breathe fumes.

### **5.3. Advice for firefighters**

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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## **SECTION 6: Accidental release measures**

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

**For non emergency personnel:**

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

**For emergency responders:**

Wear personal protection equipment.

### **6.2. Environmental precautions**

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

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

Material suitable for collection: inert absorbent material (e.g. sand, vermiculite)

After the product has been recovered, rinse the area and materials involved with water.

Retain contaminated washing water and dispose it.

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

See also section 8 and 13

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## **SECTION 7: Handling and storage**

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

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

### Advice on general occupational hygiene:

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

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

Keep container tightly closed in a cool, well-ventilated place, away from heat.

Keep away from food, drink and feed.

Incompatible materials:

See chapter 10.5

Instructions as regards storage premises:

Adequately ventilated premises.

Protect from frost.

### 7.3. Specific end use(s)

Recommendation(s)

See chapter 1.2

Industrial sector specific solutions:

None in particular

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Community Occupational Exposure Limits (OEL)

2-methylisothiazol-3(2H)-one

CAS: 2682-20-4	OEL Type	MAK	AUSTRIA	Long Term: 0.05 mg/m <sup>3</sup>
	OEL Type	MAK	GERMANY	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> Notes: Inhalable fraction
	OEL Type	SUVA	SWITZERLAND	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> Notes: Inhalable fraction

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

CAS: 55965-84-9	OEL Type	MAK	AUSTRIA	Long Term: 0.05 mg/m <sup>3</sup>
	OEL Type	MAK	GERMANY	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> Notes: Inhalable fraction
	OEL Type	SUVA	SWITZERLAND	Long Term: 0.2 mg/m <sup>3</sup> ; Short Term: 0.4 mg/m <sup>3</sup> Notes: Inhalable fraction

### 8.2. Exposure controls

Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction.

Eye protection:

Eye glasses with side protection (EN 166).

Protection for skin:

Use suitable clothing that provides complete protection to the skin according to activity and exposure (EN 14605/EN 13982), e.g. overall, apron, safety shoes, suitable clothing.

Protection for hands:

There is no material or combination of materials for gloves that can guarantee unlimited resistance to any individual chemical or combination of chemicals.

For prolonged or repeated handling, use chemical resistant gloves.

Suitable materials for safety gloves (EN 374/EN 16523); NBR (Nitril rubber): thickness  $\geq 0.4$  mm; permeation time  $\geq 480$  min.

Butyl caoutchouc (butyl rubber): thickness  $\geq 0.4$  mm; permeation time  $\geq 480$  min

The choice of suitable gloves does not only depend on the material, but also on other quality characteristics that vary from one manufacturer to another and on the manner and times according to which the mixture is used.

Respiratory protection:

If workers are exposed to concentrations above the exposure limit they must use appropriate, certified respirators.

Combination filtering device (EN 14387).

Environmental exposure controls:

See point 6.2

Hygienic and Technical measures

See section 7.

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## SECTION 9: Physical and chemical properties

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

Physical State: Liquid  
Appearance: Liquid  
Color: whitish  
Odour: Characteristic  
Melting point/freezing point: N.D.  
Boiling point or initial boiling point and boiling range: N.D.  
Flammability: N.A.  
Lower and upper explosion limit: N.D.  
Flash point: > 93°C  
Auto-ignition temperature: N.D.  
Decomposition temperature: N.D.  
pH:  $\geq 5.50 \leq 6.50$  ( Internal method )  
Kinematic viscosity: > 20.5 mm<sup>2</sup>/s (40 °C)  
Density and/or relative density: 1 kg/l ( Internal method )  
Relative vapour density: N.A.  
Vapour pressure: N.D.  
Solubility in water: miscible in all ratio  
Solubility in oil: No data available  
Partition coefficient n-octanol/water (log value): N.A.

**Particle characteristics:**

Particle size: N.A.

**9.2. Other information**

Conductivity: N.D.  
Explosive properties: N.A. ( Internal assessment )  
Oxidizing properties: N.A. ( Internal assessment )  
Evaporation rate: N.A.

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Stable under normal conditions

**10.2. Chemical stability**

Stable under normal conditions

**10.3. Possibility of hazardous reactions**

None.

**10.4. Conditions to avoid**

Keep away from heat sources.

**10.5. Incompatible materials**

None in particular.

**10.6. Hazardous decomposition products**

No hazardous decomposition products when stored and handled correctly.  
See chapter 5.2

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**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Information on hazard classes as defined in the retained Regulation (EC) No 1272/2008 (CLP) as amended by UK CLP Regulation, UK SI 2019/720 and UK SI 2020/1567.

**Toxicological Information of the Preparation**

a) acute toxicity	Not classified Based on available data, the classification criteria are not met
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation	The product is classified: Skin Sens. 1(H317)
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified

h) STOT-single exposure	Based on available data, the classification criteria are not met Not classified
i) STOT-repeated exposure	Based on available data, the classification criteria are not met Not classified
j) aspiration hazard	Based on available data, the classification criteria are not met Not classified
	Based on available data, the classification criteria are not met

#### Toxicological information on main components of the mixture:

1,2-benzisothiazol-3(2H)-one

CAS: 2634-33-5 a) acute toxicity ATE - Oral: 450 mg/kg bw  
ATE - Inhalation (Dust/mist): 0.21 mg/l

2-methylisothiazol-3(2H)-one

CAS: 2682-20-4 a) acute toxicity ATE - Oral: 120 mg/kg bw  
ATE - Dermal: 300 mg/kg bw  
ATE - Inhalation (Dust/mist): 0.134 mg/l

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

CAS: 55965-84-9 a) acute toxicity ATE - Oral: 66 mg/kg bw  
ATE - Dermal: 141 mg/kg bw  
ATE - Inhalation (Dust/mist): 0.17 mg/l

#### 11.2 Information on other hazards

##### Endocrine disrupting properties:

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

## SECTION 12: Ecological information

Adopt good working practices, so that the product is not released into the environment.

### 12.1. Toxicity

Eco-Toxicological Information:

#### List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

No data available for the product

#### List of Eco-Toxicological properties of the components

1,2-benzisothiazol-3(2H)-one

CAS: 2634-33-5 a) Aquatic acute toxicity: LC50 Fish 2.2 mg/l 96h  
a) Aquatic acute toxicity: EC50 Daphnia 3.27 mg/l 48h  
a) Aquatic acute toxicity: EC50 Algae 0.11 mg/l 72h  
b) Aquatic chronic toxicity: NOEC Fish 0.21 mg/l - 28d  
b) Aquatic chronic toxicity: NOEC Daphnia 1.2 mg/l - 21d  
b) Aquatic chronic toxicity: NOEC Algae 0.04 mg/l 72h

2-methylisothiazol-3(2H)-one

CAS: 2682-20-4 a) Aquatic acute toxicity: LC50 Fish 6 mg/l 96h  
a) Aquatic acute toxicity: EC50 Daphnia 1.68 mg/l 48h  
a) Aquatic acute toxicity: EC50 Algae 0.157 mg/l 72h  
b) Aquatic chronic toxicity: NOEC Fish 2.1 mg/l - 28d  
b) Aquatic chronic toxicity: NOEC Daphnia 0.55 mg/l - 21d  
b) Aquatic chronic toxicity: NOEC Algae 0.03 mg/l 72h

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

CAS: 55965-84-9 a) Aquatic acute toxicity: LC50 Fish 0.22 mg/l 96h  
a) Aquatic acute toxicity: EC50 Daphnia 0.1 mg/l 48h  
a) Aquatic acute toxicity: EC50 Algae 0.0052 mg/l 48h  
a) Aquatic acute toxicity: EC50 Freshwater algae 0.048 mg/l 72h  
b) Aquatic chronic toxicity: NOEC Fish 0.098 mg/l - 28d  
b) Aquatic chronic toxicity: NOEC Daphnia 0.004 mg/l - 21d

b) Aquatic chronic toxicity: NOEC Algae 0.00064 mg/l 48h

b) Aquatic chronic toxicity: NOEC Freshwater algae 0.0012 mg/l 72h

## 12.2. Persistence and degradability

1,2-benzisothiazol-3(2H)-one

CAS: 2634-33-5 Non-readily biodegradable

2-methylisothiazol-3(2H)-one

CAS: 2682-20-4 Readily biodegradable

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)

CAS: 55965-84-9 Non-readily biodegradable

## 12.3. Bioaccumulative potential

N.A.

## 12.4. Mobility in soil

N.A.

## 12.5. Results of PBT and vPvB assessment

No PBT or vPvB substances present in concentration  $\geq 0.1\%$

## 12.6 Endocrine disrupting properties

No endocrine disruptor substances present in concentration  $\geq 0.1\%$

## 12.7 Other adverse effects

N.A.

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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

Do not allow it to enter drains or watercourses.

Dispose of containers contaminated by the product in accordance with local or national legal provisions.

Once the product has expired, it must be disposed of in accordance with current legislation.

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## SECTION 14: Transport information

Not classified as dangerous in the meaning of transport regulations.

### 14.1. UN number or ID number

N/A

### 14.2. UN proper shipping name

ADR-Shipping Name: N/A

IATA-Shipping Name: N/A

IMDG-Shipping Name: N/A

### 14.3. Transport hazard class(es)

ADR-Class: N/A

IATA-Class: N/A

IMDG-Class: N/A

### 14.4. Packing group

ADR-Packing Group: N/A

IATA-Packing group: N/A

IMDG-Packing group: N/A

### 14.5. Environmental hazards

Marine pollutant: No

Environmental Pollutant: No

IMDG-EMS: N/A

### 14.6. Special precautions for user

Road and Rail (ADR-RID):

ADR exempt:

ADR-Label: N/A

ADR - Hazard identification number: N/A

ADR-Special Provisions: N/A

ADR-Transport category (Tunnel restriction code):

Air (IATA):

IATA-Passenger Aircraft: N/A

IATA-Cargo Aircraft: N/A  
IATA-Label: N/A  
IATA-Subsidiary hazards: N/A  
IATA-Erg: N/A  
IATA-Special Provisions: N/A

Sea (IMDG):

IMDG-Stowage and handling: N/A  
IMDG-Segregation: N/A  
IMDG-Subsidiary hazards: N/A  
IMDG-Special Provisions: N/A

#### **14.7. Maritime transport in bulk according to IMO instruments**

N.A.

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### **SECTION 15: Regulatory information**

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

Dir. 98/24/EC (Risks related to chemical agents at work)

Dir. 2000/39/EC (Occupational exposure limit values)

Directive 2010/75/EU

Regulation (EC) n. 1907/2006 (REACH)

Regulation (EC) n. 1272/2008 (CLP)

Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011 (ATP 2 CLP)

Regulation (EU) n. 618/2012 (ATP 3 CLP)

Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)

Regulation (EU) n. 605/2014 (ATP 6 CLP)

Regulation (EU) n. 2015/1221 (ATP 7 CLP)

Regulation (EU) n. 2016/918 (ATP 8 CLP)

Regulation (EU) n. 2016/1179 (ATP 9 CLP)

Regulation (EU) n. 2017/776 (ATP 10 CLP)

Regulation (EU) n. 2018/669 (ATP 11 CLP)

Regulation (EU) n. 2018/1480 (ATP 13 CLP)

Regulation (EU) n. 2019/521 (ATP 12 CLP)

Regulation (EU) n. 2020/217 (ATP 14 CLP)

Regulation (EU) n. 2020/1182 (ATP 15 CLP)

Regulation (EU) n. 2021/643 (ATP 16 CLP)

Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 CLP)

Regulation (EU) n. 2023/1434 (ATP 19 CLP)

Regulation (EU) n. 2023/1435 (ATP 20 CLP)

Regulation (EU) n. 2024/197 (ATP 21 CLP)

#### **Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:**

Restrictions related to the product: 3

Restrictions related to the substances contained: 75

#### **Provisions related to directive EU 2012/18 (Seveso III):**

None

#### **Regulation (EU) No 649/2012 (PIC regulation)**

No substances listed

#### **German Water Hazard Class.**

Class 1: slightly hazardous for water.

#### **SVHC Substances:**

On the basis of available data, the product does not contain any SVHC in percentage  $\geq 0.1\%$ .

Relevant EU provisions transposed through retained EU legislation:

UK REACH List of restrictions (Annex XVII);

UK REACH Candidate list of substances of very high concern (SVHC) for authorisation;

UK REACH List of substances subject to authorisation (Annex XIV);

Export and import of hazardous chemicals - Prior informed consent (PIC regulation).

#### **15.2. Chemical safety assessment**



## SECTION 16: Other information

Code	Description
EUH071	Corrosive to the respiratory tract.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Code	Hazard class and hazard category	Description
3.1/2/Dermal	Acute Tox. 2	Acute toxicity (dermal), Category 2
3.1/2/Inhal	Acute Tox. 2	Acute toxicity (inhalation), Category 2
3.1/3/Dermal	Acute Tox. 3	Acute toxicity (dermal), Category 3
3.1/3/Oral	Acute Tox. 3	Acute toxicity (oral), Category 3
3.1/4/Oral	Acute Tox. 4	Acute toxicity (oral), Category 4
3.2/1B	Skin Corr. 1B	Skin corrosion, Category 1B
3.2/1C	Skin Corr. 1C	Skin corrosion, Category 1C
3.2/2	Skin Irrit. 2	Skin irritation, Category 2
3.3/1	Eye Dam. 1	Serious eye damage, Category 1
3.3/2	Eye Irrit. 2	Eye irritation, Category 2
3.4.2/1	Skin Sens. 1	Skin Sensitisation, Category 1
3.4.2/1A	Skin Sens. 1A	Skin Sensitisation, Category 1A
4.1/A1	Aquatic Acute 1	Acute aquatic hazard, category 1
4.1/C1	Aquatic Chronic 1	Chronic (long term) aquatic hazard, category 1

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

#### Classification according to Regulation (EC) Nr. 1272/2008      Classification procedure

Skin Sens. 1, H317      Calculation method

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

Safety data sheets of raw materials suppliers.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Legend to abbreviations and acronyms used in the safety data sheet:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BEI: Biological Exposure Index

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic  
COV: Volatile Organic Compound  
CSA: Chemical Safety Assessment  
CSR: Chemical Safety Report  
DNEL: Derived No Effect Level.  
EC50: Half Maximal Effective Concentration  
ECHA: European Chemicals Agency  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ES: Exposure Scenario  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IARC: International Agency for Research on Cancer  
IATA: International Air Transport Association.  
IC50: half maximal inhibitory concentration  
IMDG: International Maritime Code for Dangerous Goods.  
LC50: Lethal concentration, for 50 percent of test population.  
LD50: Lethal dose, for 50 percent of test population.  
LDLo: Leathal Dose Low  
N.A.: Not Applicable  
N/A: Not Applicable  
N/D: Not defined/ Not available  
N.D.: Not available  
NIOSH: National Institute for Occupational Safety and Health  
NOAEL: No Observed Adverse Effect Level  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, Bioaccumulative and Toxic  
PGK: Packaging Instruction  
PNEC: Predicted No Effect Concentration.  
PSG: Passengers  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TLV-TWA: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).  
vPvB: Very Persistent, Very Bioaccumulative.  
WGK: German Water Hazard Class.

**Paragraphs modified from the previous revision:**

- SECTION 2: Hazards identification
- SECTION 9: Physical and chemical properties