

# SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2020/878

## METALSOL

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

#### 1.1. Product identifier

Product name : METALSOL  
Registration number REACH : Not applicable (mixture)  
Product type REACH : Mixture

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

##### 1.2.1 Relevant identified uses

Anti-corrosion agent

##### 1.2.2 Uses advised against

No uses advised against known

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

##### Supplier of the safety data sheet

Novatio\*  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 25 76 40  
☎ +32 14 22 02 66  
info@novatio.be  
\*NOVATIO is a registered trademark of Novatech International N.V.

##### Manufacturer of the product

Novatech International N.V.  
Industrielaan 5B  
B-2250 Olen  
☎ +32 14 85 97 37  
☎ +32 14 85 97 38  
info@novatech.be

#### 1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch) :  
+32 14 58 45 45 (BIG)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

#### 2.2. Label elements

Not classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

##### Supplemental information

EUH210 Safety data sheet available on request.

#### 2.3. Other hazards

Caution! Substance is absorbed through the skin

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# METALSOL

## 3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark	M-factors and ATE
tannins	1401-55-4 215-753-2	5%<C<10%	Aquatic Chronic 3; H412	(1)	Constituent	
oxalic acid 01-2119534576-33	144-62-7 205-634-3	1%<C<2.5%	Acute Tox. 4; H312 Acute Tox. 4; H302 Eye Dam. 1; H318	(1)(2)(6)	Constituent	

(1) For H- and EUH-statements in full: see section 16

(2) Substance with a Community workplace exposure limit

(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General:

If you feel unwell, consult a doctor/medical service.

#### After inhalation:

Remove victim into fresh air. In case of respiratory problems, consult a doctor/medical service.

#### After skin contact:

If possible, wipe up/dry remove chemical. Then rinse/shower immediately with (lukewarm) water.

#### After eye contact:

Rinse immediately with (lukewarm) water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.

#### After ingestion:

Rinse mouth with water. If you feel unwell, consult a doctor/medical service. Do not wait for symptoms to occur to consult Poison Center.

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

#### 4.2.1 Acute symptoms

##### After inhalation:

EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract.

##### After skin contact:

ON CONTINUOUS EXPOSURE/CONTACT: Red skin. Skin rash/inflammation.

##### After eye contact:

No effects known.

##### After ingestion:

Gastrointestinal complaints. Nausea. Vomiting.

#### 4.2.2 Delayed symptoms

No effects known.

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

If applicable and available it will be listed below.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### 5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher, Quick-acting class B foam extinguisher, Quick-acting CO2 extinguisher.

Major fire: Class B foam (alcohol-resistant), Water spray if puddle cannot expand.

#### 5.1.2 Unsuitable extinguishing media:

Small fire: Water (quick-acting extinguisher, reel); risk of puddle expansion.

Major fire: Water; risk of puddle expansion.

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

On burning: release of harmful gases/vapours. Upon combustion: CO and CO2 are formed.

### 5.3. Advice for firefighters

#### 5.3.1 Instructions:

No specific fire-fighting instructions required.

#### 5.3.2 Special protective equipment for fire-fighters:

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034). Heat/fire exposure: self-contained breathing apparatus (EN 136 + EN 137).

# METALSOL

## SECTION 6: Accidental release measures

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

No naked flames.

#### 6.1.1 Protective equipment for non-emergency personnel

See section 8.2

#### 6.1.2 Protective equipment for emergency responders

Gloves (EN 374). Protective clothing (EN 14605 or EN 13034).

Suitable protective clothing

See section 8.2

### 6.2. Environmental precautions

Contain released product.

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

Take up liquid spill into inert absorbent material. Scoop absorbed substance into closing containers. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.4. Reference to other sections

See section 13.

## SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe normal hygiene standards. Keep container tightly closed.

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

#### 7.2.1 Safe storage requirements:

Storage temperature: 5 °C - 35 °C. Meet the legal requirements. Protect against frost. Keep out of direct sunlight. Store at room temperature. Keep only in the original container.

#### 7.2.2 Keep away from:

Heat sources.

#### 7.2.3 Suitable packaging material:

No data available

#### 7.2.4 Non suitable packaging material:

No data available

### 7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 Occupational exposure

##### a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

#### EU

Oxalic acid	Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1 mg/m <sup>3</sup>
-------------	---	---------------------

#### Belgium

Acide oxalique (anhydre et dihydraté)	Time-weighted average exposure limit 8 h	1 mg/m <sup>3</sup>
	Short time value	2 mg/m <sup>3</sup>

#### The Netherlands

Oxaalzuur	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.27 ppm
	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	1 mg/m <sup>3</sup>

#### France

Acide oxalique	Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1 mg/m <sup>3</sup>
----------------	---	---------------------

#### Germany

Oxalsäure	Time-weighted average exposure limit 8 h (TRGS 900)	1 mg/m <sup>3</sup>
-----------	---	---------------------

#### Austria

Oxalsäure	Tagesmittelwert (MAK)	1 mg/m <sup>3</sup>
-----------	-----------------------	---------------------

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

3 / 10

# METALSOL

## UK

Oxalic acid	Time-weighted average exposure limit 8 h (Workplace exposure limit (EH40/2005))	1 mg/m <sup>3</sup>
	Short time value (Workplace exposure limit (EH40/2005))	2 mg/m <sup>3</sup>

## USA (TLV-ACGIH)

Oxalic acid, anhydrous and dihydrate	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	1 mg/m <sup>3</sup>
	Short time value (TLV - Adopted Value)	2 mg/m <sup>3</sup>

### b) National biological limit values

If limit values are applicable and available these will be listed below.

#### 8.1.2 Sampling methods

Product name	Test	Number
Oxalic acid	OSHA	2115

#### 8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

#### 8.1.4 Threshold values

##### DNEL/DMEL - Workers

oxalic acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	3.11 mg/m <sup>3</sup>	
	Long-term systemic effects dermal	0.882 mg/kg bw/day	

##### DNEL/DMEL - General population

oxalic acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term systemic effects inhalation	0.466 mg/kg bw/day	
	Long-term systemic effects dermal	0.315 mg/kg bw/day	
	Long-term systemic effects oral	0.315 mg/kg bw/day	

##### PNEC

oxalic acid

Compartments	Value	Remark
Fresh water	0.16 mg/l	
Marine water	0.016 mg/l	
STP	1550 mg/l	

#### 8.1.5 Control banding

If applicable and available it will be listed below.

## 8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 8.2.2 Individual protection measures, such as personal protective equipment

Observe normal hygiene standards. Do not eat, drink or smoke during work.

#### a) Respiratory protection:

Respiratory protection not required in normal conditions.

#### b) Hand protection:

Protective gloves against chemicals (EN 374).

Materials	Measured breakthrough time	Thickness	Protection index	Remark
nitrile rubber	> 120 minutes	0.5 mm	Class 4	Good resistance

#### c) Eye protection:

Eye protection not required in normal conditions.

#### d) Skin protection:

Protective clothing (EN 14605 or EN 13034).

### 8.2.3 Environmental exposure controls:

See sections 6.2, 6.3 and 13

## SECTION 9: Physical and chemical properties

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

Physical form	Liquid
Odour	Mild odour
Odour threshold	No data available in the literature
Colour	Beige
Particle size	Not applicable (liquid)
Explosion limits	No data available in the literature
Flammability	Not classified as flammable
Log Kow	Not applicable (mixture)

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

4 / 10

# METALSOL

Dynamic viscosity	No data available in the literature
Kinematic viscosity	No data available in the literature
Melting point	No data available in the literature
Boiling point	No data available in the literature
Relative vapour density	No data available in the literature
Vapour pressure	No data available in the literature
Solubility	Water ; miscible
Relative density	1.04
Absolute density	1040 kg/m <sup>3</sup>
Decomposition temperature	No data available in the literature
Auto-ignition temperature	No data available in the literature
Flash point	No data available in the literature
pH	1.3

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Heating increases the fire hazard. Acid reaction.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No data available.

### 10.4. Conditions to avoid

#### Precautionary measures

Keep away from naked flames/heat.

### 10.5. Incompatible materials

No data available.

### 10.6. Hazardous decomposition products

Upon combustion: CO and CO<sub>2</sub> are formed.

## SECTION 11: Toxicological information

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

#### 11.1.1 Test results

#### Acute toxicity

##### METALSOL

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	ATE		> 2000 mg/kg bw			Calculated value	
Dermal	ATE		> 2000 mg/kg bw			Calculated value	

Judgement is based on the relevant ingredients  
oxalic acid

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50		375 mg/kg bw		Rat (female)	Experimental value	
Oral	LD50		475 mg/kg bw		Rat (male)	Experimental value	
Dermal	LD50		20000 mg/kg bw		Rabbit	Experimental value	
Dermal			category 4			Annex VI	
Inhalation						Data waiving	

Classification of this substance according to Annex VI is debatable as it does not correspond to the conclusion from the test

#### Conclusion

Not classified for acute toxicity

#### Corrosion/irritation

##### METALSOL

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Not applicable (in vitro test)	Not irritating				SkinEthic™ reconstructed Human Corneal Epithelium model	Expert judgement	

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

5 / 10

# METALSOL

Not applicable (in vitro test)	Not irritating	OECD 431			Reconstructed human epidermis	Experimental value	
--------------------------------	----------------	----------	--	--	-------------------------------	--------------------	--

Classification of the mixture is based on test data on the mixture as a whole  
oxalic acid

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Serious eye damage	OECD 405		1; 24; 48; 72 hours	Rabbit	Experimental value	Single treatment
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	

## Conclusion

Not classified as irritating to the skin  
Not classified as irritating to the eyes  
Not classified as irritating to the respiratory system

## Respiratory or skin sensitisation

### METALSOL

No (test)data on the mixture available  
Judgement is based on the relevant ingredients  
oxalic acid

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 429			Mouse (female)	Experimental value	

## Conclusion

Not classified as sensitizing for skin  
Not classified as sensitizing for inhalation

## Specific target organ toxicity

### METALSOL

No (test)data on the mixture available  
Judgement is based on the relevant ingredients  
oxalic acid

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	OECD 408	≥ 63 mg/kg bw/day		No effect	13 week(s)	Rat (male / female)	Experimental value
Dermal								Data waiving
Inhalation								Data waiving

## Conclusion

Not classified for subchronic toxicity

## Mutagenicity (in vitro)

### METALSOL

No (test)data on the mixture available  
Judgement is based on the relevant ingredients  
oxalic acid

Result	Method	Test substrate	Effect	Value determination	Remark
Negative	Equivalent to OECD 471	Bacteria ( <i>S.typhimurium</i> )		Experimental value	
Negative without metabolic activation	OECD 476	Chinese hamster lung fibroblasts (V79)		Experimental value	

## Mutagenicity (in vivo)

### METALSOL

No (test)data on the mixture available  
Judgement is based on the relevant ingredients

## Conclusion

Not classified for mutagenic or genotoxic toxicity

## Carcinogenicity

### METALSOL

No (test)data on the mixture available  
Judgement is based on the relevant ingredients

## Conclusion

Not classified for carcinogenicity

## Reproductive toxicity

### METALSOL

No (test)data on the mixture available

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

6 / 10

# METALSOL

Judgement is based on the relevant ingredients

oxalic acid

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity (Oral (diet))	NOAEL	OECD 414	10000 ppm	24 day(s)	Rabbit	No effect		Experimental value
Maternal toxicity (Oral (diet))	NOAEL	OECD 414	10000 ppm	24 days (gestation, daily)	Rabbit	No effect		Experimental value
Effects on fertility (Oral (drinking water))	NOAEL	Equivalent to OECD 416	≤ 0.1 %		Mouse (male / female)	No effect		Experimental value

## Conclusion

Not classified for reprotoxic or developmental toxicity

## Aspiration hazard

Judgement is based on the relevant ingredients

Not classified for aspiration toxicity

## Toxicity other effects

METALSOL

No (test)data on the mixture available

## Chronic effects from short and long-term exposure

METALSOL

No effects known.

## 11.2. Information on other hazards

No evidence of endocrine disrupting properties

## SECTION 12: Ecological information

### 12.1. Toxicity

METALSOL

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

tannins

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		37 mg/l	96 h	Gambusia affinis	Static system		Literature study

oxalic acid

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		160 mg/l	48 h	Leuciscus idus	Static system	Fresh water	Experimental value; Nominal concentration
Acute toxicity crustacea	EC50	OECD 202	162.2 mg/l	48 h	Daphnia magna		Fresh water	Experimental value; Locomotor effect
Toxicity algae and other aquatic plants	ErC50	OECD 201	20.58 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; GLP
	EC10	OECD 201	7.55 mg/l	72 h	Pseudokirchneriella subcapitata	Static system	Fresh water	Experimental value; Growth rate
Toxicity aquatic micro-organisms	Toxicity threshold		1550 mg/l	16 h	Pseudomonas putida	Static system	Fresh water	Experimental value; Growth inhibition

## Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

### 12.2. Persistence and degradability

oxalic acid

#### Biodegradation water

Method	Value	Duration	Value determination
EU Method C.5	89 %; Oxygen consumption	20 day(s)	Experimental value

#### Biodegradation soil

Method	Value	Duration	Value determination
	70 %; Carbon dioxide	4 day(s)	Experimental value

## Conclusion

**Water**

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

7 / 10

# METALSOL

Contains readily biodegradable component(s)

## 12.3. Bioaccumulative potential

### METALSOL

#### Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

#### tannins

##### Log Kow

Method	Remark	Value	Temperature	Value determination
KOWWIN		-0.19		Estimated value

#### oxalic acid

##### Log Kow

Method	Remark	Value	Temperature	Value determination
OECD 107		-1.7	23 °C	Experimental value

#### Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

## 12.4. Mobility in soil

### tannins

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc	SRC PCKOCWIN v2.0	4.619	Calculated value

### oxalic acid

#### (log) Koc

Parameter	Method	Value	Value determination
log Koc		0.8	Experimental value

#### Conclusion

Contains component(s) with potential for mobility in the soil  
Contains component(s) that adsorb(s) into the soil

## 12.5. Results of PBT and vPvB assessment

Does not contain component(s) that meet(s) the criteria of PBT and/or vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006.

## 12.6. Endocrine disrupting properties

No evidence of endocrine disrupting properties

## 12.7. Other adverse effects

### METALSOL

#### Greenhouse gases

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

#### Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

#### Groundwater

Groundwater pollutant

#### Water ecotoxicity pH

pH shift

#### oxalic acid

#### Groundwater

Groundwater pollutant

#### Water ecotoxicity pH

pH shift

## SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

### 13.1. Waste treatment methods

#### 13.1.1 Provisions relating to waste

##### European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

20 01 14\* (separately collected fractions (except 15 01): Acids). Depending on branch of industry and production process, also other waste codes may be applicable.

#### 13.1.2 Disposal methods



# METALSOL

Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment. Dispose of at authorized waste collection point.

## 13.1.3 Packaging/Container

### European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10\* (packaging containing residues of or contaminated by dangerous substances).

## SECTION 14: Transport information

### Road (ADR), Rail (RID), Inland waterways (ADN), Sea (IMDG/IMSBC), Air (ICAO-TI/IATA-DGR)

#### 14.1. UN number/ID number

Transport	Not subject
-----------	-------------

#### 14.2. UN proper shipping name

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

Hazard identification number	
Class	
Classification code	

#### 14.4. Packing group

Packing group	
Labels	

#### 14.5. Environmental hazards

Environmentally hazardous substance mark	no
--	----

#### 14.6. Special precautions for user

Special provisions	
Limited quantities	

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

Annex II of MARPOL 73/78	Not applicable, based on available data
--------------------------	---

## SECTION 15: Regulatory information

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

#### European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
	Insufficient data

Directive 2012/18/EU (Seveso III)

Not subject to registration according to Directive 2012/18/EU (Seveso III)

#### National legislation Belgium

METALSOL

No data available

#### National legislation The Netherlands

METALSOL

Waterbezwaarlijkheid	B (3); Algemene Beoordelingsmethodiek (ABM)
----------------------	---

#### National legislation France

METALSOL

No data available

#### National legislation Germany

METALSOL

WGK	1; Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) - 18. April 2017
-----	--

tannins

TA-Luft	5.2.1
---------	-------

oxalic acid

TA-Luft	5.2.5/I
---------	---------

Hautresorptive Stoffe	Oxalsäure; H; Hautresorptiv
-----------------------	-----------------------------

#### National legislation Austria

METALSOL

No data available

oxalic acid

besondere Gefahr der Hautresorption	Oxalsäure; H
-------------------------------------	--------------

#### National legislation United Kingdom

METALSOL

No data available

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

9 / 10

# METALSOL

## Other relevant data

### METALSOL

No data available

### tannins

IARC - classification	3; Tannic acid and tannins
-----------------------	----------------------------

## 15.2. Chemical safety assessment

No chemical safety assessment is required for a mixture.

## SECTION 16: Other information

### Full text of any H- and EUH-statements referred to under section 3:

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H318 Causes serious eye damage.  
H412 Harmful to aquatic life with long lasting effects.  
EUH210 Safety data sheet available on request.

(*)	INTERNAL CLASSIFICATION BY BIG
ADI	Acceptable daily intake
AOEL	Acceptable operator exposure level
ATE	Acute Toxicity Estimate
BCF	Bioconcentration Factor
BEI	Biological Exposure Indices
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC10	Effect Concentration 10 %
EC50	Effect Concentration 50 %
ERC50	EC50 in terms of reduction of growth rate
GLP	Good Laboratory Practice
LC0	Lethal Concentration 0 %
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
LOAEC/LOAEL	Lowest Observed Adverse Effect Concentration/Lowest Observed Adverse Effect Level
NOAEC/NOAEL	No Observed Adverse Effect Concentration/No Observed Adverse Effect Level
NOEC/NOEL	No Observed Effect Concentration/No Observed Effect Level
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration
STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet is only to be used within the European Union, Switzerland, Iceland, Norway and Liechtenstein. Any use outside of this area is at your own risk. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Reason for revision: 3; 8; 15

Publication date: 2002-06-06

Date of revision: 2023-07-28

Revision number: 0500

BIG number: 38111

10 / 10