

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 16/04/2015 Revision date: 11/03/2024 Supersedes version of: 07/02/2022 Version: 14.0

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

#### 1.1. Product identifier

Product form · Mixture

Product name : MAGNESIUM PERCHLORATE SELF INDICATING GRANULAR

Product code : B1140, B1141, B1285, B1286

Product group : End product

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

#### 1.2.1. Relevant identified uses

: Professional use Main use category Use of the substance/mixture : Laboratory chemicals : Laboratory chemicals Function or use category

#### 1.2.2. Uses advised against

No additional information available

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

Elemental Microanalysis Ltd

1 Hameldown Road

Okehampton - Devon EX20 1UB

**GB** United Kingdom

T+44 1837 54446

enquiries@microanalysis.co.uk - https://www.elementalmicroanalysis.com/

#### 1.4. Emergency telephone number

: +44 (0) 7990 767375 **Emergency number** 

#### **SECTION 2: Hazards identification**

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

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

H302 Acute toxicity (oral), Category 4 H334 Respiratory sensitisation, Category 1 Skin sensitisation, Category 1 H317 Germ cell mutagenicity, Category 2 H341 Carcinogenicity, Category 1B H350 Reproductive toxicity, Category 1B H360 H410 Hazardous to the aquatic environment - Chronic Hazard, Category 1

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

May cause cancer. Suspected of causing genetic defects. May damage fertility or the unborn child. Harmful if swallowed. May cause an allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

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

Hazard pictograms (CLP)



Danger





GHS07

GHS08

GHS09

Signal word (CLP)

: COBALT DICHLORIDE; Magnesium perchlorate Contains

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Hazard statements (CLP)	<ul> <li>H302 - Harmful if swallowed.</li> <li>H317 - May cause an allergic skin reaction.</li> <li>H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.</li> <li>H341 - Suspected of causing genetic defects.</li> </ul>
	H350 - May cause cancer. H360 - May damage fertility or the unborn child. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	<ul> <li>P201 - Obtain special instructions before use.</li> <li>P261 - Avoid breathing dust.</li> <li>P280 - Wear eye protection, protective clothing, protective gloves.</li> <li>P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P308+P313 - IF exposed or concerned: Get medical advice/attention.</li> <li>P321 - Specific treatment (see supplemental first aid instruction on this label).</li> </ul>

#### 2.3. Other hazards

Contains no PBT and/or vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

Component	
COBALT DICHLORIDE (7646-79-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

Component	
, , ,	The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

# SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Magnesium perchlorate	CAS-No.: 10034-81-8 EC-No.: 233-108-3	97	Acute Tox. 4 (Oral), H302 (ATE=1490 mg/kg bodyweight) Aquatic Chronic 3, H412
COBALT DICHLORIDE substance listed as REACH Candidate substance with national workplace exposure limit(s) (ES, FI, HR, SE)	CAS-No.: 7646-79-9 EC-No.: 231-589-4 EC Index-No.: 027-004-00-5	3	Carc. 1B, H350i Muta. 2, H341 Repr. 1B, H360F Acute Tox. 4 (Oral), H302 (ATE=537 mg/kg bodyweight) Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Specific concentration limits:			
Name	Product identifier	Specific concentration limits	
COBALT DICHLORIDE	CAS-No.: 7646-79-9 EC-No.: 231-589-4 EC Index-No.: 027-004-00-5	( 0.01 ≤C ≤ 100) Carc. 1B, H350i	

Full text of H- and EUH-statements: see section 16

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

#### 4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. Symptoms/effects after skin contact : May cause an allergic skin reaction.

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

Treat symptomatically.

#### **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

#### SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

11/03/2024 (Revision date) GB - en 3/12

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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

For containment : Collect spillage.

Methods for cleaning up : Mechanically recover the product. Notify authorities if product enters sewers or public

waters.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling

: Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact with skin and eyes. Avoid breathing

dust/fume/gas/mist/vapours/spray.

Hygiene measures

Separate working clothes from town clothes. Launder separately. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

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

No additional information available

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

11/03/2024 (Revision date) GB - en 4/12

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

#### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):







#### 8.2.2.1. Eye and face protection

#### Eye protection:

Safety glasses

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves

Relative density

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

#### **Environmental exposure controls:**

Avoid release to the environment.

# SECTION 9: Physical and chemical properties

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

Physical state : Solid Colour : Blue. Odour : odourless. Odour threshold : Not available Melting point : No data available. Freezing point : Not applicable **Boiling point** : Not available Flammability : Non flammable. Explosive limits : Not applicable Lower explosion limit : Not applicable Upper explosion limit : Not applicable Flash point Not applicable Auto-ignition temperature No data available. Decomposition temperature Not available No data available. рΗ pH solution Not available Viscosity, kinematic Not applicable Solubility Not available Partition coefficient n-octanol/water (Log Kow) Not available Vapour pressure Not available Vapour pressure at 50°C Not available Not available Density

Relative vapour density at 20°C : No data available. Particle size : Not available

2.21

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

#### **SECTION 11: Toxicological information**

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

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

# MAGNESIUM PERCHLORATE SELF INDICATING GRANULAR ATE CLP (oral) 1414.682 mg/kg bodyweight COBALT DICHLORIDE (7646-79-9) LD50 oral rat 537 mg/kg LD50 dermal rat 537 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) Magnesium perchlorate (10034-81-8) LD50 oral 1490 mg/kg bodyweight Animal: other:, Guideline: other: Skin corrosion/irritation : Not classified

Skin corrosion/irritation : Not classified pH: No data available.

#### **COBALT DICHLORIDE (7646-79-9)**

pH 4.6 Source: HSDB

Serious eye damage/irritation : Not classified

pH: No data available.

#### **COBALT DICHLORIDE (7646-79-9)**

pH 4.6 Source: HSDB

11/03/2024 (Revision date) GB - en 6/12

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an Respiratory or skin sensitisation

allergic skin reaction.

Germ cell mutagenicity : Suspected of causing genetic defects.

Carcinogenicity : May cause cancer.

COPALTO	ICHI OBIDE	7646 70 0
COBALID	ICHLORIDE (	(1040-19-9)

IARC group 2B - Possibly carcinogenic to humans

Reproductive toxicity : May damage fertility or the unborn child.

STOT-single exposure : Not classified STOT-repeated exposure Not classified

COBALT DICHLORIDE (7646-79-9)		
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.31 mg/l air Animal: rat	
NOAEL (oral, rat, 90 days)	3 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

Aspiration hazard : Not classified

#### MAGNESIUM PERCHLORATE SELF INDICATING GRANULAR

Viscosity, kinematic Not applicable

#### 11.2. Information on other hazards

No additional information available

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

: Very toxic to aquatic life with long lasting effects. Ecology - general

: Not classified

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

: Very toxic to aquatic life with long lasting effects.

Not rapidly degradable

COBALT DICHLORIDE (7646-79-9)			
LC50 - Fish [1]	22.32 mg/l		
EC50 - Crustacea [1]	5.89 mg/l Test organisms (species): Daphnia magna		
Magnesium perchlorate (10034-81-8)			
EC50 - Crustacea [1]	100 mg/l Test organisms (species): Daphnia magna		

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

COBALT DICHLORIDE (7646-79-9)		
Partition coefficient n-octanol/water (Log Pow)	0.85 Source: International Chemical Safety Cards	

#### 12.4. Mobility in soil

No additional information available

11/03/2024 (Revision date) GB - en 7/12

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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

Component	
COBALT DICHLORIDE (7646-79-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Endocrine disrupting properties

No additional information available

#### 12.7. Other adverse effects

No additional information available

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste treatment methods HP Code

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : HP6 "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.

HP11 - "Mutagenic:" waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

# SECTION 14: Transport information In accordance with ADR / IMDG / IATA / ADN / RID

In accordance with ADR / IMI		14.74	45)	DID		
ADR	IMDG	IATA	ADN	RID		
14.1. UN number or ID number						
UN 1475	UN 1475	UN 1475	UN 1475	UN 1475		
14.2. UN proper shippin	g name					
MAGNESIUM	MAGNESIUM	Magnesium perchlorate	MAGNESIUM	MAGNESIUM		
PERCHLORATE (Magnesium perchlorate)	PERCHLORATE (Magnesium perchlorate)	(Magnesium perchlorate)	PERCHLORATE (Magnesium perchlorate)	PERCHLORATE (Magnesium perchlorate)		
Transport document descr	iption					
UN 1475 MAGNESIUM PERCHLORATE (Magnesium perchlorate), 5.1, II, (E), ENVIRONMENTALLY HAZARDOUS	UN 1475 MAGNESIUM PERCHLORATE (Magnesium perchlorate), 5.1, II, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1475 Magnesium perchlorate (Magnesium perchlorate), 5.1, II, ENVIRONMENTALLY HAZARDOUS	UN 1475 MAGNESIUM PERCHLORATE (Magnesium perchlorate), 5.1, II, ENVIRONMENTALLY HAZARDOUS	UN 1475 MAGNESIUM PERCHLORATE (Magnesium perchlorate), 5.1, II, ENVIRONMENTALLY HAZARDOUS		
14.3. Transport hazard	class(es)					
5.1	5.1	5.1	5.1	5.1		
5.1	5.1	5.1	5.1	5.1		
14.4. Packing group						
II	II	II	II	II		

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID	
14.5. Environmental hazards					
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	
No supplementary information available					

#### 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : O2
Limited quantities (ADR) : 1kg
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P002, IBC06

Mixed packing provisions (ADR) : MP2
Portable tank and bulk container instructions (ADR) : T3
Portable tank and bulk container special provisions : TP33

(ADR)

Tank code (ADR) : SGAV
Tank special provisions (ADR) : TU3
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Packages (ADR) : V11

Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP6, AP7

Special provisions for carriage - Loading, unloading : CV24

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S23 Hazard identification number (Kemler No.) : 50

Orange plates : T

50 1475

Tunnel restriction code (ADR) : E EAC code : 1Y

#### Transport by sea

Limited quantities (IMDG) : 1 kg Excepted quantities (IMDG) E2 Packing instructions (IMDG) P002 IBC packing instructions (IMDG) IBC06 IBC special provisions (IMDG) : B21 Tank instructions (IMDG) T3 TP33 Tank special provisions (IMDG) EmS-No. (Fire) : F-H EmS-No. (Spillage) : S-Q Stowage category (IMDG) : A

Segregation (IMDG) : SGG13, SG38, SG49

Properties and observations (IMDG) : White crystals or powder. Reacts vigorously with sulphuric acid. Reacts fiercely with cyanides when heated or by friction. May form explosive mixtures with combustible material,

powdered metals or ammonium compounds. These mixtures are sensitive to friction and are  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 

liable to ignite. When involved in a fire, may cause an explosion.

#### Air transport

PCA Excepted quantities (IATA) : E2
PCA Limited quantities (IATA) : Y544
PCA limited quantity max net quantity (IATA) : 2.5kg
PCA packing instructions (IATA) : 558
PCA max net quantity (IATA) : 5kg
CAO packing instructions (IATA) : 562
CAO max net quantity (IATA) : 25kg

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

ERG code (IATA) : 5L

Inland waterway transport

Classification code (ADN) : O2
Limited quantities (ADN) : 1 kg
Excepted quantities (ADN) : E2
Equipment required (ADN) : PP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : O2
Limited quantities (RID) : 1kg
Excepted quantities (RID) : E2
Packing instructions (RID) : P002, IBC06
Mixed packing provisions (RID) : MP2
Portable tank and bulk container instructions (RID) : T3
Portable tank and bulk container special provisions : TP33

(RID)

Tank codes for RID tanks (RID) : SGAV
Special provisions for RID tanks (RID) : TU3
Transport category (RID) : 2
Special provisions for carriage – Packages (RID) : W11

Special provisions for carriage – Bulk (RID) : VC1, VC2, AP6, AP7

Special provisions for carriage - Loading, unloading : CW24

and handling (RID)

Colis express (express parcels) (RID) : CE10 Hazard identification number (RID) : 50

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

Not applicable

# **SECTION 15: Regulatory information**

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

#### 15.1.1. EU-Regulations

#### **REACH Annex XVII (Restriction List)**

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

#### **REACH Annex XIV (Authorisation List)**

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### **REACH Candidate List (SVHC)**

Contains substance(s) listed on the REACH Candidate List in concentrations ≥ 0.1 % or SCL: Cobalt dichloride (EC 231-589-4, CAS 7646-79-9)

#### **PIC Regulation (Prior Informed Consent)**

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

#### **POP Regulation (Persistent Organic Pollutants)**

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

#### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

#### **Explosives Precursors Regulation (2019/1148)**

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

#### **Drug Precursors Regulation (273/2004)**

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

#### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

# **SECTION 16: Other information**

Abbreviations and acronyms:			
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
ATE	Acute Toxicity Estimate		
BCF	Bioconcentration factor		
BLV	Biological limit value		
BOD	Biochemical oxygen demand (BOD)		
COD	Chemical oxygen demand (COD)		
DMEL	Derived Minimal Effect level		
DNEL	Derived-No Effect Level		
EC-No.	European Community number		
EC50	Median effective concentration		
EN	European Standard		
IARC	International Agency for Research on Cancer		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
LOAEL	Lowest Observed Adverse Effect Level		
NOAEC	No-Observed Adverse Effect Concentration		
NOAEL	No-Observed Adverse Effect Level		
NOEC	No-Observed Effect Concentration		
OECD	Organisation for Economic Co-operation and Development		
OEL	Occupational Exposure Limit		
PBT	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS	Safety Data Sheet		
STP	Sewage treatment plant		
ThOD	Theoretical oxygen demand (ThOD)		
TLM	Median Tolerance Limit		
VOC	Volatile Organic Compounds		
CAS-No.	Chemical Abstract Service number		
N.O.S.	Not Otherwise Specified		

#### Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Abbreviations and acronyms:		
vPvB	Very Persistent and Very Bioaccumulative	
ED	Endocrine disrupting properties	

Full text of H- and EUH-statements:			
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4		
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1		
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1		
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3		
Carc. 1B	Carcinogenicity, Category 1B		
H302	Harmful if swallowed.		
H317	May cause an allergic skin reaction.		
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.		
H341	Suspected of causing genetic defects.		
H350	May cause cancer.		
H350i	May cause cancer by inhalation.		
H360	May damage fertility or the unborn child.		
H360F	May damage fertility.		
H400	Very toxic to aquatic life.		
H410	Very toxic to aquatic life with long lasting effects.		
H412	Harmful to aquatic life with long lasting effects.		
Muta. 2	Germ cell mutagenicity, Category 2		
Repr. 1B	Reproductive toxicity, Category 1B		
Resp. Sens. 1	Respiratory sensitisation, Category 1		
Skin Sens. 1	Skin sensitisation, Category 1		

The classification complies with

: ATP 12

Safety Data Sheet (SDS)\_EMAL, EU

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

11/03/2024 (Revision date) GB - en 12/12