

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

1.1 Product identifier

Trade name	Chlorine granules slowly soluble
Identification of the substance	Symclosene
CAS number	87-90-1
Registration number (REACH)	01-2120767978-27-xxxx
SDS-Ref	07520

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

Relevant identified uses	Water treatment chemical Professional use Consumer use (private households)
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1.3 Details of the supplier of the safety data sheet

Steinbach International GmbH
L. Steinbach Platz 1
4311 Schwertberg
Austria
Telephone: +43 7262 61431 1000
e-Mail: info@steinbach-group.com
e-Mail (competent person): sdb@steinbach-group.com

1.4 Emergency telephone number

Country	Name	Postal code/city	Telephone	Opening hours
Austria	Vergiftungsinformationszentrale	1090 Wien	+43 1 406 4343 (24h)	
United Kingdom	National Poisons Information Service		111 (24h)	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and category	Hazard statement
2.14	oxidising solid	2	Ox. Sol. 2	H272
3.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
3.3	serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
4.1A	hazardous to the aquatic environment - acute hazard	1	Aquatic Acute 1	H400
4.1C	hazardous to the aquatic environment - chronic hazard	1	Aquatic Chronic 1	H410

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Spillage and fire water can cause pollution of watercourses.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

- Signal word Danger
- Pictograms

GHS03, GHS07,
GHS09



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- Hazard statements
 - H272 May intensify fire; oxidiser.
 - H302 Harmful if swallowed.
 - H319 Causes serious eye irritation.
 - H335 May cause respiratory irritation.
 - H410 Very toxic to aquatic life with long lasting effects.
- Precautionary statements
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.
 - P220 Keep/store away from clothing/combustible materials.
 - P271 Use only outdoors or in a well-ventilated area.
 - P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 - P312 Call a POISON CENTRE/doctor if you feel unwell.
 - P391 Collect spillage.
 - P501 Dispose of contents/container to hazardous or special waste collection point.
- Supplemental hazard information
 - EUH031 Contact with acids liberates toxic gas.
 - EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

2.3 Other hazards

Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

Name of substance	Symclosene
CAS No	87-90-1
EC No	201-782-8
REACH Reg. No	01-2120767978-27-xxxx
Index No	613-031-00-5

Specific Conc. Limits	M-Factors	ATE	Exposure route
-	-	500 mg/kg	oral

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Take off immediately all contaminated clothing. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.

Following inhalation

Mouth to mouth resuscitation should be avoided. Use alternative methods, preferably with oxygen or compressed air driven apparatus. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion

Rinse mouth with water (only if the person is conscious). Let be drunken in little sips: 0, 1-0, 2l Water. Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

None.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water, Foam, Alcohol resistant foam, ABC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Oxidising property.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen oxides (NO_x), Hydrogen chloride (HCl), Chlorine (Cl₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety. Ventilate affected area.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains. Take up mechanically.

Advice on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation
Use only in well-ventilated areas. Use local and general ventilation.
- Specific notes/details
Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.
- Handling of incompatible substances or mixtures
Do not mix with acids.
- Keep away from
Organic absorbing material, Pulp/paper, Caustic solutions

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres
Removal of dust deposits.
- Flammability hazards
Keep valves and fittings free from oil and grease.
- Incompatible substances or mixtures
Keep/store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.

Control of effects

- Protect against external exposure, such as
High temperatures, Frost, Humidity, UV-radiation/sunlight
- Ventilation requirements
Use local and general ventilation.

Packaging compatibilities

Professional use: Only packagings which are approved (e.g. acc. to ADR) may be used. Consumer use (private households): Keep only in original container.

Conditions of storage

Keep container tightly closed in a cool place. Protect from sunlight. Keep away from children.

7.3 Specific end use(s)

There is no additional information.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

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Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
EU	chlorine	7782-50-5	IOELV			0.5	1.5			proc	2006 /15/ EC
GB	dust		WEL		10					i	EH40 / 2005
GB	dust		WEL		4					r	EH40 / 2005
GB	chlorine	7782-50-5	WEL			0.5	1.5			proc	EH40 / 2005

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
i	inhalable fraction
proc	substances released during the process
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

8.2 Exposure controls (professional use)

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

- Eye/face protection

Use safety goggles with side protection (EN 166).

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Type of material

PVC: polyvinyl chloride, NR: natural rubber, latex

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Respiratory protection

Particulate filter device (EN 143).

In case of inadequate ventilation wear respiratory protection: Full face mask (DIN EN 136).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	solid
Colour	white
Odour	characteristic
Melting point/freezing point	246.8 °C
Boiling point or initial boiling point and boiling range	not determined
Flammability	non-combustible
Lower and upper explosion limit	not determined
Flash point	not applicable
Auto-ignition temperature	not determined
Decomposition temperature	225 °C
pH (value)	2 – 2.7 (in aqueous solution: 10 g/l, 20 °C)
Kinematic viscosity	not relevant
Particle characteristics	no data available
Oxidising properties	oxidiser
Vapour pressure	
Vapour pressure	<0.002 Pa at 20 °C

Density and/or relative density

Density	2.07 g/cm ³
Relative vapour density	information on this property is not available
Bulk density	~1.2 g/cm ³

Other safety parameters

Solubility(ies)

Water solubility	9.4 g/l at 25 °C
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Partition coefficient

n-Octanol/water (log KOW)	-1.31 (25 °C)
Soil organic carbon/water (log KOC)	1.708

9.2 Other information

Information with regard to physical hazard classes

there is no additional information

Other safety characteristics

there is no additional information

SECTION 10: Stability and reactivity**10.1 Reactivity**

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". It's a reactive substance. The mixture contains reactive substance(s). Oxidising property.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

10.5 Incompatible materials

Combustible materials

Release of toxic materials with:

Acids

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Classification according to GHS (1272/2008/EC, CLP)**

Acute toxicity

Harmful if swallowed.

GHS of the United Nations, annex 4: May be harmful if inhaled.

Acute toxicity estimate (ATE)

Oral 500 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

11.2 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute)			
Endpoint	Value	Species	Exposure time
LC50	0.23 mg/l	fish	96 h
EC50	0.17 mg/l	aquatic invertebrates	48 h
EbC50	2,700 mg/l	algae	72 h
ErC50	>100 mg/l	algae	72 h

Aquatic toxicity (chronic)			
Endpoint	Value	Species	Exposure time
EC50	2,600 mg/l	aquatic invertebrates	21 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

n-Octanol/water (log KOW)

-1.31 (25 °C) (ECHA)

12.4 Mobility in soil

The Organic Carbon normalised adsorption coefficient

1.708 (ECHA)

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Not listed.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Other disposal recommendations

Dispose of contents/container to hazardous or special waste collection point. Waste treatment of containers/packagings: Mixed municipal waste.

Relevant provisions relating to waste

List of wastes (EU), Decision 2000/532/EC on the list of waste

Product Code/ Type of waste: 19 09 99

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number or ID number	2468
ADR/RID/ADN	UN 2468
IMDG-Code	UN 2468
ICAO-TI	UN 2468
14.2 UN proper shipping name	TRICHLOROISOCYANURIC ACID, DRY
ADR/RID/ADN	TRICHLOROISOCYANURIC ACID, DRY
IMDG-Code	TRICHLOROISOCYANURIC ACID, DRY
ICAO-TI	Trichloroisocyanuric acid, dry
14.3 Transport hazard class(es)	
ADR/RID/ADN	5.1
IMDG-Code	5.1
ICAO-TI	5.1
14.4 Packing group	II (substance presenting medium danger)
ADR/RID/ADN	II
IMDG-Code	II
ICAO-TI	II
14.5 Environmental hazards	hazardous to the aquatic environment
14.6 Special precautions for user	
	Provisions for dangerous goods (ADR) should be complied within the premises.
14.7 Maritime transport in bulk according to IMO instruments	
	The cargo is not intended to be carried in bulk.



Information for each of the UN Model Regulations

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Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)

Classification code	O2
Danger label(s)	5.1, fish and tree  
Environmental hazards	yes (hazardous to the aquatic environment)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 kg
Transport category (TC)	2
Tunnel restriction code (TRC)	E
Hazard identification No	50
Emergency Action Code	1W

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	5.1, fish and tree  
Special provisions (SP)	-
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 kg
EmS	F-A, S-Q
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	5.1 
Excepted quantities (EQ)	E2
Limited quantities (LQ)	2,5 kg

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Restrictions according to REACH, Annex XVII

No	Name of substance	CAS No	Type of registration
75	Symclosene		2020/2081/EC annex XVII

List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

Not listed.

Seveso Directive

No	Dangerous substance/hazard categories
P8	oxidising liquids and solids

Deco-Paint Directive

VOC content	0 %
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Industrial Emissions Directive (IED)

VOC content	0 %
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Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

Not listed.

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

Not listed.

Water Framework Directive (WFD)

List of pollutants (WFD)

Name of substance	CAS No	Listed in	Remarks
Symclosene		A)	

Legend

A) Indicative list of the main pollutants

Regulation on persistent organic pollutants (POP)

Not listed.

National inventories

Country	Inventory	Status
EU	REACH Reg.	substance is listed

Legend

REACH Reg. REACH registered substances

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.3	Details of the supplier of the safety data sheet: Steinbach International GmbH L. Steinbach Platz 1 4311 Schwertberg Austria Telephone: +43 7262 61431 e-Mail: info@steinbach-group.com e-Mail (competent person): sdb@steinbach-group.com	Details of the supplier of the safety data sheet: Steinbach International GmbH L. Steinbach Platz 1 4311 Schwertberg Austria Telephone: +43 7262 61431 1000 e-Mail: info@steinbach-group.com e-Mail (competent person): sdb@steinbach-group.com	yes
2.2		- Precautionary statements: change in the listing (table)	yes
3.1		Index No: change in the listing (table)	yes
4.1	General notes: Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Take off immediately all contaminated clothing. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. In case of unconsciousness place person in the recovery position. Never give anything by mouth.	General notes: Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Take off immediately all contaminated clothing. Symptoms may develop several hours following exposure; medical observation therefore necessary for at least 48 hours. In case of unconsciousness place person in the recovery position. Never give anything by mouth. Self-protection of the first aider.	yes
4.1	Following skin contact: Rinse skin with water/shower.		yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
8.2	- Eye/face protection: Use safety goggle with side protection (EN 166).		yes
8.2		- Eye/face protection: Use safety goggle with side protection (EN 166).	yes
8.2	Hand protection: In the case of wanting to use the gloves again, clean them before taking off and air them well.		yes
8.2	Type of material: PVC: polyvinyl chloride, NR: natural rubber, latex		yes
8.2		- Hand protection: Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.	yes
8.2		Type of material: PVC: polyvinyl chloride, NR: natural rubber, latex	yes
8.2	- Other protection measures: Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.	- Other protection measures: Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.	yes
8.2	Respiratory protection: Particulate filter device (EN 143)	Respiratory protection: Particulate filter device (EN 143). In case of inadequate ventilation wear respiratory protection: Full face mask (DIN EN 136).	yes
9.1		Lower and upper explosion limit: not determined	yes
9.1	Evaporation rate: not determined		yes
9.1	Explosion limits of dust clouds: not determined		yes
9.1	pH (value): 2 – 2.7 (water: 10 ⁹ /l, 20 °C)	pH (value): 2 – 2.7 (in aqueous solution: 10 ⁹ /l, 20 °C)	yes
9.1		Kinematic viscosity: not relevant	yes
9.1		Particle characteristics: no data available	yes
9.1		Oxidising properties: oxidiser	yes
9.1		Vapour pressure	yes
9.1		Density and/or relative density	yes
9.1	Vapour density: this information is not available		yes
9.1	Viscosity: not relevant (solid matter)		yes
9.1	Explosive properties: none		yes
9.1	Oxidising properties: oxidiser		yes
9.1		Relative vapour density: information on this property is not available	yes
9.2	Other information: There is no additional information.	Other information	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
9.2		Information with regard to physical hazard classes: there is no additional information	yes
9.2		Other safety characteristics: there is no additional information	yes
11.2		Information on other hazards: There is no additional information.	yes
12.7	Other adverse effects	Other adverse effects: Data are not available.	yes
14.1		ADR/RID/ADN: UN 2468	yes
14.1		IMDG-Code: UN 2468	yes
14.1		ICAO-TI: UN 2468	yes
14.2		ADR/RID/ADN: TRICHLOROISOCYANURIC ACID, DRY	yes
14.2		IMDG-Code: TRICHLOROISOCYANURIC ACID, DRY	yes
14.2		ICAO-TI: Trichloroisocyanuric acid, dry	yes
14.3	Class: 5.1 (oxidizing substances) (environmentally hazardous)		yes
14.3		ADR/RID/ADN: 5.1	yes
14.3		IMDG-Code: 5.1	yes
14.3		ICAO-TI: 5.1	yes
14.4		ADR/RID/ADN: II	yes
14.4		IMDG-Code: II	yes
14.4		ICAO-TI: II	yes
14.7	UN number: 2468		yes
14.7	Proper shipping name: TRICHLOROISOCYANURIC ACID, DRY		yes
14.7	Class: 5.1		yes
14.7	Packing group: II		yes
14.7	UN number: 2468		yes
14.7	Proper shipping name: TRICHLOROISOCYANURIC ACID, DRY		yes
14.7	Class: 5.1		yes
14.7	Packing group: II		yes
14.7	UN number: 2468		yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.7	Proper shipping name: Trichloroisocyanuric acid, dry		yes
14.7	Class: 5.1		yes
14.7	Packing group: II		yes
15.1	Restrictions according to REACH, Annex XVII: Not listed.	Restrictions according to REACH, Annex XVII	yes
15.1		Restrictions according to REACH, Annex XVII: change in the listing (table)	yes
15.1		Regulation on persistent organic pollutants (POP): Not listed.	yes
16		Abbreviations and acronyms: change in the listing (table)	yes
16	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	Key literature references and sources for data: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU. Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ADR/RID/ADN	Agreements concerning the International Carriage of Dangerous Goods by Road/Rail/Inland Waterways (ADR/RID/ADN)
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	ceiling value
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
EbC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	short-term exposure limit
SVHC	Substance of Very High Concern
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative

Chlorine granules slowly soluble

Version number: GHS 6.0 (2021-10-18)

Replaces version: GHS 5 (2020-11-10)

Abbr.	Descriptions of used abbreviations
WEL	workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.