

Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

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

1.1 Product identifier

| | |
|---------------------------------|------------------------------|
| Trade name | Chlorine granules |
| Identification of the substance | Troclosene sodium, dihydrate |
| CAS number | 51580-86-0 |
| Registration number (REACH) | 01-2119489371-33-xxxx |
| SDS-Ref | 0759001 |

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) |
|--------------------------|---|

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) | |
| Ireland | National Poisons Information Centre | Dublin 9 | +353 1 809 2166 / 2566 (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 |
|---------|---|----------|---------------------------|------------------|
| 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 Warning
- Pictograms
- GHS07, GHS09



Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

- Hazard statements
 - 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.
 - 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.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.1 Substances

| | |
|-------------------|------------------------------|
| Name of substance | Troclosene sodium, dihydrate |
| CAS No | 51580-86-0 |
| EC No | 220-767-7 |
| REACH Reg. No | 01-2119489371-33-xxxx |
| Index No | 613-030-01-7 |

| Specific Conc. Limits | M-Factors | ATE | Exposure route |
|-----------------------|-----------|-------------|----------------|
| - | - | 1,823 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 aid-er.

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.

Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

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

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

Not required. If substance has entered a water course or sewer, inform the responsible authority. Disposal considerations: see section 13.

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.

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.

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

| 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 |
| IE | dusts, non-specific | | OELV | | 10 | | | | | i | S.I. No. 619 of 2001 |

Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

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 |
|---------|---------------------|-----------|------------|-----------|--------------------------|------------|---------------------------|-----------------|--------------------------------|----------|----------------------|
| IE | dusts, non-specific | | OELV | | 4 | | | | | r | S.I. No. 619 of 2001 |
| IE | chlorine | 7782-50-5 | OELV | | | 0.5 | 1.5 | | | proc | S.I. No. 619 of 2001 |

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) |

Human health values

Relevant DNELs and other threshold levels

| Endpoint | Threshold level | Protection goal, route of exposure | Used in | Exposure time |
|----------|------------------------|------------------------------------|-------------------------------|----------------------------|
| DNEL | 8.11 mg/m ³ | human, inhalatory | worker (industry) | chronic - systemic effects |
| DNEL | 2.3 mg/kg bw/day | human, dermal | worker (industry) | chronic - systemic effects |
| DNEL | 1.99 mg/m ³ | human, inhalatory | consumer (private households) | chronic - systemic effects |
| DNEL | 1.15 mg/kg bw/day | human, dermal | consumer (private households) | chronic - systemic effects |
| DNEL | 1.15 mg/kg bw/day | human, oral | consumer (private households) | chronic - systemic effects |

Environmental values

Relevant PNECs and other threshold levels

| Endpoint | Threshold level | Organism | Environmental compartment | Exposure time |
|----------|-----------------|-----------------------|------------------------------|------------------------------|
| PNEC | 0 mg/l | aquatic organisms | freshwater | short-term (single instance) |
| PNEC | 1.52 mg/l | aquatic organisms | marine water | short-term (single instance) |
| PNEC | 0.59 mg/l | aquatic organisms | sewage treatment plant (STP) | short-term (single instance) |
| PNEC | 7.56 mg/kg | aquatic organisms | freshwater sediment | short-term (single instance) |
| PNEC | 0.756 mg/kg | terrestrial organisms | soil | short-term (single instance) |

8.2 Exposure controls (professional use)

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

- Eye/face protection

Use safety goggle with side protection (EN 166).

Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

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 | not determined |
| 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 | 252 °C |
| pH (value) | 6 – 7 (in aqueous solution: 1 % (w/w), 20 °C) |
| Kinematic viscosity | not relevant |
| Oxidising properties | none |
| Vapour pressure | |
| Vapour pressure | <0.006 Pa at 20 °C |

Density and/or relative density

| | |
|-------------------------|---|
| Density | not determined |
| Relative vapour density | information on this property is not available |

Particle characteristics

| | |
|---------------|-----------------------|
| Particle size | Median 1200 - 1800 µm |
|---------------|-----------------------|

Other safety parameters

| Solubility(ies) | |
|-------------------------------------|-----------------------------------|
| Water solubility | 248.2 g/l at 25 °C |
| Partition coefficient | |
| n-Octanol/water (log KOW) | this information is not available |
| Soil organic carbon/water (log KOC) | 1.708 |

9.2 Other information

Information with regard to physical hazard classes
Other safety characteristics

hazard classes acc. to GHS (physical hazards): not relevant
there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

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

There is no additional information.

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.

Acute toxicity estimate (ATE)

Oral 1,823 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Chlorine granules

Version number: GHS 10.0 (2024-05-02)

Replaces version: GHS 9 (2023-12-13)

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 | 0.24 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.

12.4 Mobility in soil

The Organic Carbon normalised adsorption coefficient 1.708 (ECHA)

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

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

3077

ADR/RID/ADN

UN 3077

IMDG-Code

UN 3077

ICAO-TI

UN 3077

14.2 UN proper shipping name

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

ADR/RID/ADN

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

IMDG-Code

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

ICAO-TI

Environmentally hazardous substance, solid, n.o.s.

Technical name

Troclosene sodium, dihydrate

14.3 Transport hazard class(es)

ADR/RID/ADN

9

IMDG-Code

9

ICAO-TI

9

14.4 Packing group

III (substance presenting low danger)

ADR/RID/ADN

III

IMDG-Code

III

ICAO-TI

III

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.

Chlorine granules

Version number: GHS 10.0 (2024-05-02)


Replaces version: GHS 9 (2023-12-13)

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

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


| | |
|-------------------------------|---|
| Classification code | M7 |
| Danger label(s) | 9, fish and tree  |
| Environmental hazards | yes (hazardous to the aquatic environment) |
| Special provisions (SP) | 274, 335, 375, 601 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 kg |
| Transport category (TC) | 3 |
| Tunnel restriction code (TRC) | - |
| Hazard identification No | 90 |

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) -

Additional information

| | |
|--------------------------|---|
| Classification code | M7 |
| Danger label(s) | 9, fish and tree  |
| Environmental hazards | yes (hazardous to water) |
| Special provisions (SP) | 274, 335, 375, 601 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 kg |
| Transport category (TC) | 3 |
| Hazard identification No | 90 |

International Maritime Dangerous Goods Code (IMDG) - Additional information

| | |
|--------------------------|---|
| Marine pollutant | yes (hazardous to the aquatic environment) |
| Danger label(s) | 9, fish and tree  |
| Special provisions (SP) | 274, 335, 966, 967, 969 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 5 kg |
| EmS | F-A, S-F |
| Stowage category | A |

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

| | |
|--------------------------|---|
| Environmental hazards | yes (hazardous to the aquatic environment) |
| Danger label(s) | 9, fish and tree  |
| Special provisions (SP) | A97, A158, A179, A197, A215 |
| Excepted quantities (EQ) | E1 |
| Limited quantities (LQ) | 30 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 | Troclosene sodium, dihydrate | | 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 |
|----|--|
| E1 | environmental hazards (hazardous to the aquatic environment, cat. 1) |

Deco-Paint Directive

| | |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

Industrial Emissions Directive (IED)

| | |
|-------------|-----|
| VOC content | 0 % |
|-------------|-----|

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 |
| Troclosene sodium, dihydrate | | a) | |
| Troclosene sodium, dihydrate | | a) | |

Legend

a) Indicative list of the main pollutants

Regulation on persistent organic pollutants (POP)

Not listed

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 |
|---------|---|---|-----------------|
| 2.3 | Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0,1\%$. | Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$. | yes |
| 9.1 | Particle characteristics: no data available | | yes |
| 9.1 | | Particle characteristics | yes |
| 9.1 | | Particle size: Median 1200 - 1800 μm | yes |
| 12.6 | Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0,1\%$. | Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) at a concentration of $\geq 0,1\%$. | 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) |
| DNEL | Derived No-Effect Level |
| EbC50 | \equiv 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) |
| ED | endocrine disruptor |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| ELINCS | European List of Notified Chemical Substances |
| EmS | Emergency Schedule |
| ErC50 | \equiv 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 |
| PNEC | Predicted No-Effect Concentration |
| 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) |
| S.I. No. 619 of 2001 | Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 |
| 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

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.

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). 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 |
|------|---|
| 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.