

Sicherheitsdatenblatt
gemäß 1907/2006/EG, Artikel 31

Printing date 01.07.2025

Version number 7 (replaces version 6)

Revision: 01.07.2025

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

- **1.1 Product identifier**
- **Trade name:** **BENAMIN Aktivchlor Granulat**
- **CAS Number:**
7778-54-3
- **Index number:**
017-012-00-7
- **UFI:** F990-10J8-J008-97Y3
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Do not use for splashing or spraying.
Do not use for products intended for direct skin contact.
- **Application of the substance / the mixture** Disinfectant
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
BWT Holding GmbH
Walter-Simmer-Strasse 4
A - 5310 Mondsee
AUSTRIA
Phone: +43/6232/5011-0
Fax: +43/6232/4058
email: office@bwt.at
- **Further information obtainable from:**
R&D Department - Chemicals Officer
Phone: +43/6232/5011-1893
+43/6232/5011-1427
email: msds-info@bwt-group.com
- **1.4 Emergency telephone number:**
Poison center Vienna
Tel.: +43/1-406 43 43

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS03 flame over circle

Ox. Sol. 2 H272 May intensify fire; oxidiser.



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.

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· Hazard pictograms



GHS03 GHS05 GHS07 GHS09

· Signal word *Danger*

· Hazard-determining components of labelling:

calcium hypochlorite

· Hazard statements

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

· Precautionary statements

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

P102 Keep out of reach of children.

P220 Keep away from clothing and other combustible materials.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P405 Store locked up.

P501 Dispose of contents/container at a hazardous or special waste collection point.

· Additional information:

EUH031 Contact with acids liberates toxic gas.

EUH206 Warning! Do not use together with other products. May release dangerous gases (chlorine).

Contains biocidal products: calcium hypochlorite

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** This substance does not fulfil the PBT criteria of REACH, Annex XIII.

· **vPvB:** This substance does not fulfil the vPvB criteria of the REACH Regulation, Annex XIII.

· Determination of endocrine-disrupting properties

This product does not contain ingredients with endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Delegated Regulation (EU) 2018/605 in quantities of 0.1% (w/w) or more.

SECTION 3: Composition/information on ingredients

· 3.1 Substance

· CAS No. Description

CAS: 7778-54-3 calcium hypochlorite

· Identification number(s)

· **EC number:** 231-908-7

· **Index number:** 017-012-00-7

· Specific concentration limits

Skin Corr. 1B; H314: $C \geq 5 \%$

Skin Irrit. 2; H315: $1 \% \leq C < 5 \%$

Eye Dam. 1; H318: $C \geq 3 \%$

Eye Irrit. 2; H319: $0,5 \% \leq C < 3 \%$

· **M-factor** Aquatic Acute: 10

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· *Acute toxicity estimate (ATE) values Oral 850 mg/kg*

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:**

In case of accident or if you feel unwell, consult a doctor immediately.

Do not leave affected persons unattended.

Take affected persons out of danger area and lay down.

Avoid contact with skin and eyes.

Personal protection for the First Aider.

Immediately remove any clothing soiled by the product.

· **After inhalation:**

Do not use mouth to mouth or mouth to nose resuscitation.

In the event of irregular breathing or respiratory arrest, seek medical assistance immediately and initiate first aid measures.

In case of irritation of the respiratory tract, consult a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:**

Immediately rinse with water.

Rinse affected skin areas under running water for at least 10 to 20 minutes.

· **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

Remove any contact lenses if possible.

Consult a doctor if symptoms persist.

· **After swallowing:**

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Do not induce vomiting.

Rinse out mouth, spit out liquid.

Immediately drink 1 glass of water (approx. 200 ml) if you remain conscious.

Seek medical treatment.

Call for a doctor immediately.

· **4.2 Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

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

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

Foam

Alcohol resistant foam

ABC powder

Water

· **For safety reasons unsuitable extinguishing agents:** *Full jet of water*

· **5.2 Special hazards arising from the substance or mixture**

Fire-promoting property.

Can be released in the event of a fire:

Hydrogen chloride (HCl)

Chlorine (g)

· **5.3 Advice for firefighters**

· **Protective equipment:**

Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

Wear self-contained respiratory protective device.

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· **Additional information**

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

Avoid formation of dust.

Keep away from ignition sources.

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· **For non-emergency personnel**

Bring people to safety.

Ventilate the affected area.

· **For emergency responders**

Respiratory protective equipment must be worn when exposed to vapours, dusts, aerosols and gases.

· **6.2 Environmental precautions:**

Do not allow to enter sewers/ surface or ground water.

Keep contaminated washing water and dispose of appropriately.

Inform respective authorities in case of seepage into water course or sewage system.

· **6.3 Methods and material for containment and cleaning up:**

Use neutralising agent.

Pick up dust-free.

Seal sewer system.

Clean the floor and contaminated objects with water.

Ensure adequate ventilation.

Dispose contaminated material as waste according to section 13.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Keep away from organic absorbent material, cellulose/paper.

Use personal protective equipment.

Avoid contact with skin and eyes.

Do not mix with acids.

Use only in well ventilated areas.

Do not eat, drink or smoke during use.

Thorough dedusting.

· **Information about fire - and explosion protection:**

Keep away from open flames, hot surfaces and sources of ignition.

· **Handling:**

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products and at the end of the working day, as well as before eating, smoking and using the toilet.

Wash contaminated clothing before reuse.

Ensure that eyewash stations and safety showers are available near the work area.

Choose appropriate methods to remove contaminated clothing.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store tightly closed, cool and dry, in a well-ventilated place.

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Store only in the original receptacle.

Protect from heat and direct sunlight.

Protect from frost.

· **Information about storage in one common storage facility:**

Store away from flammable substances.

Do not store together with acids.

· **Further information about storage conditions:** *Store receptacle in a well ventilated area.*

· **Storage class:** 5.1 B

· **Classification according to the German Ordinance on Industrial Safety and Health (BetrSichV):** -

· **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

Observe the general dust limit value of 1.25 mg/m³ (fine dust concentration).

· **Additional information:** *The lists valid during the making were used as basis.*

· **8.2 Exposure controls**

· **Appropriate engineering controls** *General ventilation.*

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of insufficient ventilation, wear respiratory protection: full face mask (DIN EN 136).

Recommended filter type:

Filter B-P2

· **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Wear gloves according to EN374.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

Natural rubber, NR

PVC gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

· **Body protection:**

Apron

Protective work clothing

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- **Environmental exposure controls**
- Do not allow to enter surface water or sewage system.
- Avoid penetration into the subsoil.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

- | | |
|---|---------------------------|
| · Physical state | Solid |
| · Colour: | White |
| · Odour: | Characteristic |
| · Odour threshold: | Not determined. |
| · Melting point/freezing point: | Undetermined. |
| · Boiling point or initial boiling point and boiling range | Undetermined. |
| · Flammability | Product is not flammable. |
| · Lower and upper explosion limit | |
| · Lower: | Not determined. |
| · Upper: | Not determined. |
| · Flash point: | Not applicable. |
| · Decomposition temperature: | 177 °C |
| · pH (1 g/l) at 20 °C | 10,6 |
| · Viscosity: | |
| · Kinematic viscosity | Not applicable. |
| · Dynamic: | Not applicable. |
| · Solubility | |
| · water at 25 °C: | 214 g/l |
| · Partition coefficient n-octanol/water (log value) | Not determined. |
| · Vapour pressure: | Not applicable. |
| · Density and/or relative density | |
| · Density at 20 °C: | 2,35 g/cm³ |
| · Relative density | Not determined. |
| · Vapour density | Not applicable. |
| · Particle characteristics | See section 3. |

· **9.2 Other information**

- | | |
|--|---|
| · Appearance: | |
| · Form: | Solid |
| · Important information on protection of health and environment, and on safety. | |
| · Ignition temperature: | Not determined. |
| · Explosive properties: | Product does not present an explosion hazard. |
| · Organic solvents: | 0,0 % |
| · Solids content: | 100,0 % |
| · Molecular weight | 142,99 g/mol |
| · Change in condition | |
| · Softening point/range | |
| · Oxidising properties | Oxidising agent |
| · Evaporation rate | Not applicable. |

· **Information with regard to physical hazard classes**

- | | |
|-------------------------------|------|
| · Explosives | Void |
| · Flammable gases | Void |
| · Aerosols | Void |
| · Oxidising gases | Void |
| · Gases under pressure | Void |
| · Flammable liquids | Void |

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· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	May intensify fire; oxidiser.
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** It is a reactive substance. The mixture contains reactive substance(s). Oxidising property.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Flammable.
Reacts with flammable substances.
Reacts with acids.
Reacts with organic substances.
Contact with acids releases toxic gases.
- **10.4 Conditions to avoid**
heat exposure
No further relevant information available.
- **10.5 Incompatible materials:**
Flammable substances
Oxidising agent
Acids
Warning! Do not use together with other products. May release dangerous gases (chlorine).
- **10.6 Hazardous decomposition products:** Chlorine

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

· **LD/LC50 values relevant for classification:**

CAS: 7778-54-3 calcium hypochlorite

Oral	LD50	850 mg/kg (rat)
------	------	-----------------

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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· **11.2 Information on other hazards**

· **Endocrine disrupting properties**

Substance is not listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**

CAS: 7778-54-3 calcium hypochlorite

EC50 0,067 mg/L (daphnia)

LC50/96h 0,057 mg/l (fish)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

· **12.7 Other adverse effects**

· **Remark:** Very toxic for fish

· **Additional ecological information:**

· **General notes:**

Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into the ground.

Very toxic for aquatic organisms

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

Disposal in accordance with official regulations.

Avoid release into the environment.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

16 09 04* oxidising substances, not otherwise specified

HP2 Oxidising

HP6 Acute Toxicity

HP8 Corrosive

HP12 Release of an acute toxic gas

HP14 Ecotoxic

· **Uncleaned packaging:** Contaminated packaging must be treated in the same way as the substance.

· **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN number or ID number

· ADR, IMDG, IATA

UN3487

· 14.2 UN proper shipping name

· ADR

3487 CALCIUM HYPOCHLORITE, HYDRATED,
CORROSIVE, ENVIRONMENTALLY HAZARDOUS

· IMDG

CALCIUM HYPOCHLORITE, HYDRATED,
CORROSIVE, MARINE POLLUTANT

· IATA

CALCIUM HYPOCHLORITE, HYDRATED,
CORROSIVE

· 14.3 Transport hazard class(es)

· ADR



· Class

5.1 Oxidising substances.

· Label

5.1+8

· IMDG



· Class

5.1 Oxidising substances.

· Label

5.1/8

· IATA



· Class

5.1 Oxidising substances.

· Label

5.1 (8)

· 14.4 Packing group

· ADR, IMDG, IATA

II

· 14.5 Environmental hazards:

· Marine pollutant:

Yes

· Special marking (ADR):

Symbol (fish and tree)
Symbol (fish and tree)

· 14.6 Special precautions for user

· Hazard identification number (Kemler code):

58

· EMS Number:

F-H,S-Q

· Segregation groups

(SGG8) Hypochlorites

· Stowage Category

D

· Stowage Code

SW1 Protected from sources of heat.

SW11 Cargo transport units shall be shaded from direct sunlight. Packages in cargo transport units shall be stowed so as to allow for adequate air circulation throughout the cargo.

· Segregation Code

SG35 Stow "separated from" SGG1-acids

SG38 Stow "separated from" SGG2-ammonium compounds.

SG49 Stow "separated from" SGG6-cyanides

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· <i>SG53 Shall not be stowed together with combustible material in the same cargo transport unit</i> <i>SG60 Stow "separated from" SGG16-peroxides</i>	
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· Transport category	2
· Tunnel restriction code	E
· IMDG	
· Limited quantities (LQ)	1 kg
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g
· UN "Model Regulation":	UN 3487 CALCIUM HYPOCHLORITE, HYDRATED, CORROSIVE, 5.1 (8), II, ENVIRONMENTALLY HAZARDOUS

*

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS03 GHS05 GHS07 GHS09

- **Signal word** Danger
- **Hazard-determining components of labelling:**
calcium hypochlorite
- **Hazard statements**
H272 May intensify fire; oxidiser.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.
- **Precautionary statements**
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P220 Keep away from clothing and other combustible materials.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P310 *Immediately call a POISON CENTER/doctor.*
 P405 *Store locked up.*
 P501 *Dispose of contents/container at a hazardous or special waste collection point.*

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** Substance is not listed.

· **Seveso category**

P8 **OXIDISING LIQUIDS AND SOLIDS**

E1 *Hazardous to the Aquatic Environment*

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 50 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

Substance is not listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

Substance is not listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

Substance is not listed.

· **Regulation (EC) No 273/2004 on drug precursors**

Substance is not listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

Substance is not listed.

· **National regulations:**

· **Waterhazard class:** Water hazard class 2 (Assessment by list): hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This safety data sheet complies with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

· **Date of previous version:** 20.03.2024

· **Version number of previous version:** 6

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

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

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Ox. Sol. 2: Oxidizing solids – Category 2

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

· *** Data compared to the previous version altered.**