

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

- **Product identifier**
- **Trade name:** **BENAMIN Aktivchlor Granulat**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
 Disinfectant
 Oxidant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 BWT AG
 Walter Simmer Straße 4
 A - 5310 Mondsee
 AUSTRIA
 Tel.: +43/6232/5011-0
 Fax: +43/6232/4058
 email: office@bwt.at
- **Further information obtainable from:**
 Abteilung F&E - Chemiebeauftragter
 Tel.: +43/6232/5011-1423
 email: msds-info@bwt-group.com
- **Emergency telephone number:**
 Vergiftungsinformation Wien
 Tel.: +43/1-406 43 43

2 Hazards identification

- **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.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product 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+EUH031 Harmful if swallowed. Contact with acids liberates toxic gas.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
Precautionary statements
P221 Take any precaution to avoid mixing with combustibles.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/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 or doctor/physician.
P405 Store locked up.
Other hazards
Results of PBT and vPvB assessment
PBT: *Not applicable.*
vPvB: *Not applicable.*
3 Composition/information on ingredients
Chemical characterization: Mixtures
Description: *Mixture of substances listed below with nonhazardous additions.*
Dangerous components:

CAS: 7778-54-3	calcium hypochlorite	50-100%
EINECS: 231-908-7	 Ox. Sol. 2, H272;  Skin Corr. 1B, H314;  Aquatic Acute 1, H400;  Acute Tox. 4, H302	

4 First aid measures
Description of first aid measures
General information:
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
After inhalation:
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
After skin contact: *Immediately wash with water and soap and rinse thoroughly.*
After eye contact: *Rinse opened eye for several minutes under running water. Then consult a doctor.*
After swallowing: *Drink plenty of water and provide fresh air. Call for a doctor immediately.*
Information for doctor:
Most important symptoms and effects, both acute and delayed *No further relevant information available.*

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water
- **For safety reasons unsuitable extinguishing agents:**
Extinguishing powder
Carbon dioxide
ABC powder
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid formation of dust.
Keep away from ignition sources.
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of dust.
Use only in well ventilated areas.
Thorough dedusting.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:**
Do not store together with acids.
Store away from flammable substances.
- **Further information about storage conditions:**
Keep container tightly sealed.

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- Store in cool, dry conditions in well sealed receptacles.
- Store receptacle in a well ventilated area.
- Protect from heat and direct sunlight.
- **Storage class:** 5.1A
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **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:** Filter B/P3
- **Protection of hands:**



Protective gloves

- **Material of gloves**
PVC gloves
Synthetic rubber gloves
- **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 protection:**



Tightly sealed goggles

- **Body protection:**
Apron
Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Granulate
Colour:	White
Odour:	Pungent
- **pH-value (10 g/l) at 20°C:** 11.5

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 · **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: Undetermined.

 · **Flash point:** Not applicable.

 · **Flammability (solid, gaseous):** Contact with combustible material may cause fire.

 · **Ignition temperature:**

Decomposition temperature: 177°C

 · **Self-igniting:** Product is not selfigniting.

 · **Danger of explosion:** Product does not present an explosion hazard.

 · **Density at 20°C:** 1050 kg/m³ (Schüttgewicht)

 · **Solubility in / Miscibility with water at 25°C:** 217 g/l

 · **Solvent content:**

Solids content: 100.0 %

 · **Other information** No further relevant information available.

 * **10 Stability and reactivity**

 · **Reactivity**

 · **Chemical stability**

 · **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

 · **Possibility of hazardous reactions**

Flammable.

Reacts with flammable substances.

Reacts with acids.

Reacts with organic substances.

 · **Conditions to avoid** No further relevant information available.

 · **Incompatible materials:** No further relevant information available.

 · **Hazardous decomposition products:** Chlorine

11 Toxicological information

 · **Information on toxicological effects**

 · **Acute toxicity:**

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

7778-54-3 calcium hypochlorite

Oral LD50 850 mg/kg (rat)

 · **Primary irritant effect:**

 · **on the skin:** Caustic effect on skin and mucous membranes.

 · **on the eye:** Strong caustic effect.

 · **Sensitization:** No sensitizing effects known.

12 Ecological information

 · **Toxicity**

 · **Acquatic toxicity:** No further relevant information available.

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

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- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): 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 unneutralized.
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
 Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN2880
- **UN proper shipping name**
- **ADR** 2880 CALCIUM HYPOCHLORITE, HYDRATED, ENVIRONMENTALLY HAZARDOUS
- **IMDG, IATA** CALCIUM HYPOCHLORITE, HYDRATED
- **Transport hazard class(es)**
- **ADR**
- 

- **Class** 5.1 Oxidising substances.
- **Label** 5.1
- **IMDG, IATA**
- 
- **Class** 5.1 Oxidising substances.
- **Label** 5.1
- **Packing group**
- **ADR, IMDG, IATA** II

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· Environmental hazards:	
· Marine pollutant:	No
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Oxidising substances.
· Danger code (Kemler):	50
· EMS Number:	F-H,S-Q
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Tunnel restriction code	E
· UN "Model Regulation":	UN2880, CALCIUM HYPOCHLORITE, HYDRATED, ENVIRONMENTALLY HAZARDOUS, 5.1, II

15 Regulatory information

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

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.

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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