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

1. **Product identifier**
   - **Trade name:** Benamin D
   - **CAS Number:** 7681-52-9
   - **EC number:** 231-668-3
   - **Index number:** 017-011-00-1
   - **UFI:** 95MN-JK9G-GXSP-M37J

2. **Relevant identified uses of the substance or mixture and uses advised against**
   - No further relevant information available.
   - **Application of the substance / the mixture** Disinfectant

3. **Details of the supplier of the safety data sheet**
   - **Manufacturer/Supplier:**
     - BWT Holding GmbH
     - 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 - Chemikalienbeauftragte(r)
     - Tel.: +43/6232/5011-1893
     - +43/6232/5011-1427
     - email: msds-info@bwt-group.com
   - **Emergency telephone number:**
     - Vergiftungsinformation Wien
     - Tel.: +43/1-406 43 43

**SECTION 2: Hazards identification**

1. **Classification of the substance or mixture**
   - **Classification according to Regulation (EC) No 1272/2008**
     - **GHS05 corrosion**
       - Met. Corr. 1 H290 May be corrosive to metals.
       - Skin Corr. 1B H314 Causes severe skin burns and eye damage.
       - Eye Dam. 1 H318 Causes serious eye damage.
     - **GHS09 environment**
       - Aquatic Acute 1 H400 Very toxic to aquatic life.
       - Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

2. **Label elements**
   - **Labelling according to Regulation (EC) No 1272/2008**
     - The substance is classified and labelled according to the CLP regulation.
Trade name: **Benamin D**

### Hazard pictograms

- GHS05
- GHS09

### Signal word

**Danger**

### Hazard-determining components of labelling:

- Sodium hypochlorite, solution

### Hazard statements

- **H290** May be corrosive to metals.
- **H314** Causes severe skin burns and eye damage.
- **H410** Very toxic to aquatic life with long lasting effects.

### Precautionary statements

- **P260** Do not breathe dusts or mists.
- **P273** Avoid release to the environment.
- **P280** Wear protective gloves/protective clothing/eye protection/face protection/hearing 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].
- **P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- **P310** Immediately call a POISON CENTER/doctor.
- **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P321** Specific treatment (see on this label).
- **P405** Store locked up.

### Additional information:

- EUH031 Contact with acids liberates toxic gas.

### 2.3 Other hazards

- PBT: Not applicable.
- vPvB: Not applicable.

### SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**

  **CAS No. Description**
  
  7681-52-9 Sodium hypochlorite, solution

  **Identification number(s)**

  - **EC number:** 231-668-3
  - **Index number:** 017-011-00-1

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

  **General information:** Immediately remove any clothing soiled by the product.

  **After inhalation:** Supply fresh air and to be sure call for a doctor.

  **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.

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
SECTION 5: Firefighting measures

5.1 Extinguishing media
- Suitable extinguishing agents:
  - CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- 5.2 Special hazards arising from the substance or mixture: Hydrogen chloride (HCl)
- 5.3 Advice for firefighters
  - Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Wear protective equipment. Keep unprotected persons away.
- Ensure adequate ventilation
- 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.
- 6.3 Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Use neutralising agent.
  - Dispose contaminated material as waste according to item 13.
  - Ensure adequate ventilation.
- 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 heat and direct sunlight.
- Use only in well ventilated areas.
- Information about fire - and explosion protection: No special measures required.
7.2 Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store in a cool location.
    - Store only in the original receptacle.
    - Provide ventilation for receptacles.
  - Information about storage in one common storage facility: Do not store together with acids.
  - Further information about storage conditions: Keep container tightly sealed.
- Storage class: 8B
- 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: Not required.
- Additional information: The lists valid during the making were used as basis.
Trade name: **Benamin D**

8.2 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.
  - Do not eat, drink, smoke or sniff while working.
- **Respiratory protection:**
  - Not necessary if room is well-ventilated.
  - Use suitable respiratory protective device in case of insufficient ventilation.
  - Filter B
  - Filter P3
- **Protection of hands:**
  - Only use chemical-protective gloves with CE-labelling of category III.
  - **Material of gloves**
    - Rubber gloves
    - PVC 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

**SECTION 9: Physical and chemical properties**

- **9.1 Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: Fluid
    - Colour: Light green
    - Odour: Like chlorine
  - **pH-value at 20 °C:** 12
  - **Change in condition**
    - Melting point/freezing point: -20 bis -30 °C
    - Initial boiling point and boiling range: 96-99 °C
  - **Flash point:** Not applicable.
  - **Explosive properties:** Product does not present an explosion hazard.
  - **Vapour pressure at 20 °C:** 20 hPa
  - **Density at 20 °C:** 1.22 g/cm³
  - **Solubility in / Miscibility with water:** Fully miscible.
  - **Organic solvents:** 0.0 %
SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided**: To avoid thermal decomposition do not overheat.
- **10.3 Possibility of hazardous reactions**
  Reacts with heavy metals.
  Reacts with acids.
  Reacts with oxidising agents.
  Reacts with acids releasing chlorine.
- **10.4 Conditions to avoid**
  Heat exposure
  No further relevant information available.
- **10.5 Incompatible materials**:
  Acids
  Oxidising agent
  Reductive
- **10.6 Hazardous decomposition products**: Chlorine

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification**:
  7681-52-9 sodium hypochlorite, solution
  Oral \[LD50\] $5800 \text{mg/kg (mouse)}$

  - **Primary irritant effect**:
    - Skin corrosion/irritation
      Causes severe skin burns and eye damage.
    - Serious eye damage/irritation
      Causes serious eye damage.
  - **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
    - 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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity**: No further relevant information available.
- **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.
- **Additional ecological information**:
  - **General notes**:
    - Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water
SECTION 13: Disposal considerations

13.1 Waste treatment methods
Recommendation
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue

06 02 05* other bases

Uncleaned packaging:
Recommendation: Disposal must be made according to official regulations.
Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

14.1 UN-Number
ADR, IMDG, IATA
UN1791

14.2 UN proper shipping name
ADR
1 7 9 1  H Y P O C H L O R I T E  S O L U T I O N ,
ENVIRONMENTALLY HAZARDOUS
HYPOCHLORITE SOLUTION

IMDG, IATA

14.3 Transport hazard class(es)
ADR

Class 8 Corrosive substances.
Label 8

IMDG, IATA

Class 8 Corrosive substances.
Label 8

14.4 Packing group
ADR, IMDG, IATA

II

14.5 Environmental hazards:
Marine pollutant: No

(Contd. on page 7)
### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - Directive 2012/18/EU
  - Named dangerous substances - ANNEX I Substance is not listed.
  - Seveso category E1 Hazardous to the Aquatic Environment
  - Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
  - Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
  - REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

### 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.

**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 européen sur le transport 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
- Met. Corr.1: Corrosive to metals – Category 1
Trade name: **Benamin D**

Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

* Data compared to the previous version altered.