DIOTIN

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

1.1. Product identifier **Trade name/designation:**

DIOTIN

UFI:
TPT1-70A6-S00S-EKPQ

1.2. Relevant identified uses of the substance or mixture and uses advised against **Use of the substance/mixture:**

Disinfectants

Relevant identified uses:

Product Categories [PC] PC

8: Biocidal product

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

SWS Distribution Ltd
17 London Rd, Alderley Edge
SK9 7JT
United Kingdom
Telephone: +44 (0) 1625 908 908
E-mail: info@synthesis-ws.com
Website: www.synthesis-ws.com

E-mail (competent person): kyrochem@kyrochem.de

1.4. Emergency telephone number

National Poisons Information Service Edinburgh, 24h: + 44 (0) 344 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals *(Met. Corr. 1)*	H290: May be corrosive to metals.	On basis of test data.
Acute toxicity (dermal) *(Acute Tox. 4)*	H312: Harmful in contact with skin.	Calculation method.
Skin corrosion/irritation *(Skin Corr. 1)*	H314: Causes severe skin burns and eye damage.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Acute 1)*	H400: Very toxic to aquatic life.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

2.2. Label elementsLabelling according to Regulation (EC) No. 1272/2008 [CLP] Hazardpictograms:

GHS05
Corrosion

GHS07
Exclamation mark

GHS09
Environment

Signal word: Danger

Hazard components for labelling:
sodium chlorite; sodium hypochlorite, solution ... % Cl active

Hazard statements for physical hazards	
H290	May be corrosive to metals.

Hazard statements for health hazards	
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Hazard statements for environmental hazards	
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Supplemental hazard information: none

Precautionary statements Prevention	
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....

Precautionary statements Response	
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/....
P391	Collect spillage.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 7681-52-9 EC No.: 231-668-3 Index No.: 017-011-00-1	**sodium hypochlorite, solution ... % Cl active** Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Skin Corr. 1B (H314)  Danger EUH031 M-factor (acute): 10 M-factor (chronic): 1 **Specific concentration limit (SCL)** C ≥ 5% **Acute Toxicity Estimate** ATE (oral) > 5,000 mg/kg ATE (dermal) > 5,000 mg/kg ATE (inhalation, vapour) > 10.5 mg/L	9 – ≤ 15 weight-%
CAS No.: 7758-19-2 EC No.: 231-836-6 REACH No.: 01-2119529240-51	**sodium chlorite** Acute Tox. 2 (H310), Acute Tox. 3 (H301), Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Eye Dam. 1 (H318), Ox. Sol. 1 (H271), STOT RE 2 (H373), Skin Corr. 1B (H314)  Danger M-factor (acute): 1 M-factor (chronic): 0 **Acute Toxicity Estimate** ATE (oral) 100 mg/kg ATE (dermal) 50 mg/kg	5 – ≤ 9 weight-%

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

Get medical advice/attention. Take off immediately all contaminated clothing. Get immediate medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. After contact with skin, wash immediately with plenty of water and soap.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion:

Rinse mouth. Get medical advice/attention if you feel unwell. Get immediate medical advice/attention. Let 1 glass of water be drunken in little sips (dilution effect). Rinse mouth immediately and drink 1 glass of of water. Do NOT induce vomiting.

Self-protection of the first aider:

Use personal protection equipment. Avoid contact with skin, eyes and clothes. No direct artificial respiration to be given by first aider.

4.2. Most important symptoms and effects, both acute and delayed

Skin corrosion/irritation Serious eye damage/eye irritation If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

The product is not: Combustible.; Co-ordinate fire-fighting measures to the fire surroundings. **Unsuitable extinguishing media:**

Full water jet

5.2. Special hazards arising from the substance or mixture

Risk of bursting . The product itself does not burn.

Hazardous combustion products:

In case of fire: Gases/vapours, toxic Chlorine compounds

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety. Provide fresh air.

Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Use water spray jet to minimise or disperse vapours.

For cleaning up:

Water Water (with cleaning agent)

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Avoid contact with skin, eyes and clothes. Provide adequate ventilation.

Fire prevent measures:

Co-ordinate fire-fighting measures to the fire surroundings. No special measures are necessary.

Measures to prevent aerosol and dust generation:

Keep container tightly closed.

Environmental precautions:

Do not allow to enter into surface water or drains.

Advices on general occupational hygiene
Wash hands thoroughly after handling. Take off contaminated clothing and wash it before reuse. When using do not eat, drink, smoke, sniff. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:
Keep/Store only in original container.

Requirements for storage rooms and vessels:
Keep/Store only in original container.

Hints on storage assembly:
Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight.

Storage class (TRGS 510, Germany): 8B – Non-combustible corrosive substances

7.3. Specific end use(s)
Recommendation:
Read label before use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	· Long-term occupational exposure limit value · Short-term occupational exposure limit value · Instantaneous value · Monitoring and observation processes · Remark
WEL (GB)	**sodium hydroxide** CAS No.: 1310-73-2 EC No.: 215-185-5	② 2 mg/m³
ES	**sodium hydroxide** CAS No.: 1310-73-2 EC No.: 215-185-5	② 2 mg/m³

8.1.2. Biological limit values
No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	· DNEL type · Exposure route
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	1.55 mg/m³	· DNEL worker · Long-term – inhalation, systemic effects
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	1.55 mg/m³	· DNEL Consumer · Long-term – inhalation, systemic effects
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	3.1 mg/m³	· DNEL worker · Acute - inhalation, systemic effects
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	1.55 mg/m³	· DNEL worker · Long-term – inhalation, local effects

Substance name	DNEL value	· DNEL type · Exposure route
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	1.55 mg/m³	· DNEL Consumer · Long-term – inhalation, local effects
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	3.1 mg/m³	· DNEL worker · Acute - inhalation, local effects
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	0.26 mg/kg	· DNEL worker · Long-term - oral, systemic effects
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.41 mg/m³	· DNEL worker · Long-term – inhalation, systemic effects
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.41 mg/m³	· DNEL worker · Acute - inhalation, systemic effects
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.58 mg/kg bw/day	· DNEL worker · Long-term - dermal, systemic effects
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.58 mg/kg bw/day	· DNEL worker · Acute – dermal, systemic effects
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	2.1 mg/m³	· DNEL worker · Long-term – inhalation, systemic effects
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	5.7 mg/m³	· DNEL Consumer · Long-term – inhalation, systemic effects
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	1 mg/m³	· DNEL worker · Long-term – inhalation, local effects
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	2.5 mg/m³	· DNEL Consumer · Acute - inhalation, local effects
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	2.3 mg/kg bw/ day	· DNEL worker · Long-term - oral, systemic effects

Substance name	PNEC Value	① PNEC type
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	0.21 mg/L	① PNEC aquatic, freshwater
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	0.042 mg/L	① PNEC aquatic, marine water
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	0.03 mg/L	① PNEC sewage treatment plant
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	0.26 mg/L	① PNEC aquatic, intermittent release

Substance name	PNEC Value	① PNEC type
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.65 µg/L	① PNEC aquatic, freshwater
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	0.065 µg/L	① PNEC aquatic, marine water
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6	1 mg/L	① PNEC sewage treatment plant
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	6.4 mg/L	① PNEC aquatic, freshwater
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	0.64 mg/L	① PNEC aquatic, marine water
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	51 mg/L	① PNEC sewage treatment plant
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	2.3 mg/kg	① PNEC sediment, marine water
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	0.853 mg/kg	① PNEC soil
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	3.1 mg/L	① PNEC aquatic, intermittent release
sodium hydroxide CAS No.: 1310-73-2 EC No.: 215-185-5	23 mg/kg	① PNEC soil, freshwater

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374 Suitable material: NBR (Nitrile rubber); PVC (polyvinyl chloride); Butyl caoutchouc (butyl rubber) Breakthrough time: 480 min In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

Usually no personal respirative protection necessary. Wear breathing apparatus if exposed to vapours/dusts/ aerosols. Filter type: ABEK1, B-P3

Other protection measures:

Wear protective gloves/protective clothing and eye protection/face protection.

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid
Colour: light yellow
Odour: stinging
Flammability: No

Safety relevant basis data

Parameter	Value	at °C	· Method · Remark
pH	> 11		
Melting point	-20 – -30 °C		
Freezing point	*No data available*		
Initial boiling point and boiling range	100 °C		
Flash point	*not applicable*		
Evaporation rate	*No data available*		
Auto-ignition temperature	*not applicable*		
Upper/lower flammability or explosive limits	*not applicable*		
Vapour pressure	14 mbar	20 °C	
Vapour density	*No data available*		
Density	1.2 g/cm³	20 °C	
Bulk density	*not applicable*		
Water solubility	completely miscible		
Dynamic viscosity	*No data available*		
Kinematic viscosity	*No data available*		

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
May be corrosive to metals. Contact with acids liberates toxic gas. The product itself does not burn.

10.2. Chemical stability
Stable under specified storage conditions. See section 7 of the safety data sheet.

10.3. Possibility of hazardous reactions
May be corrosive to metals. Reacts in contact with acids to release chlorine dioxide. Risk of bursting . Reacts with: Combustible substances, Oxidizing agent, Reducing agent.

10.4. Conditions to avoid
Avoid high temperatures or direct sunlight.

10.5. Incompatible materials
Acids; Reducing agent; Combustible substances, Metals and metal salts.

10.6. Hazardous decomposition products
Chlorine; Chlorine dioxide (ClO2), Oxygen. In case of fire: Gases/vapours, toxic

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3
LD_{50} oral: >5,000 mg/kg (rat)
LD_{50} dermal: >5,000 mg/kg (rabbit)
LC_{50} Acute inhalation toxicity (vapour): >10.5 mg/L 1 h (rat) OECD Guideline 403 (Acute Inhalation Toxicity)
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6
LD_{50} oral: =284 mg/kg (Ratte)
LD_{50} dermal: =134 mg/kg (Kaninchen)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Harmful in contact with skin.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Causes severe skin burns and eye damage. Causes severe skin burns and eye damage.

Serious eye damage/irritation:
Causes serious eye damage. Causes serious eye damage.

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.

Additional information:
No data available

11.2. Information on other hazards
No data available

SECTION 12: Ecological information

12.1. Toxicity

sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3
LC_{50}: 0.032 – 10 mg/L 4 d (fish)
LC_{50}: 0.032 – 56.4 mg/L 2 d (crustaceans)
EC_{50}: 0.04 – 2.3 mg/L 2 d (crustaceans)
EC_{50}: 46 mg/L 4 d (Algae/water plant)
EC_{50}: 0.018 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum))
EC_{50}: 0.1 – 0.4 mg/L 4 d (Algae/water plant, Myriophyllum spicatum (eurasian watermilfoil))
EC_{50}: 0.035 mg/L 2 d (crustaceans, Ceriodaphnia dubia)
NOEC: 0.005 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum))
NOEC: 0.02 mg/L 4 d (Algae/water plant, Myriophyllum spicatum (eurasian watermilfoil))
NOEC: 0.025 mg/L 2 d (crustaceans, Ceriodaphnia dubia)
LOEC: 0.005 mg/L 3 d (Algae/water plant, Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum))
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6
LC_{50}: >75 – <360 mg/L 4 d (fish)
EC_{50}: >0.1 – <1.4 mg/L 2 d (crustaceans)
EC_{50}: >0.904 – <5.43 mg/L 3 d (Algae/water plant)
LC_{50}: 105 mg/L 4 d
EC_{50}: <1 mg/L 2 d (Daphnia magna)

Aquatic toxicity:
Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3
Biodegradation: not applicable

12.3. Bioaccumulative potential

sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3
Log K_{OW}: 3.42

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
sodium chlorite CAS No.: 7758-19-2 EC No.: 231-836-6
Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV Waste code product

06 13 01 *	inorganic plant protection products, wood-preserving agents and other biocides
18 01 06 *	Chemicals consisting of or containing hazardous substances

**: Evidence for disposal must be provided.*

Remark:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
The EWC waste codes are not product-related but origin-related. The manufacturer can therefore not specify a waste code for products that are used in different industries.
The keys listed are to be understood as recommendations for the user.

Waste code packaging

15 01 10 *	packaging containing residues of or contaminated by dangerous substances

**: Evidence for disposal must be provided.*

Remark:

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
The EWC waste codes are not product-related but origin-related. The manufacturer can therefore not specify a waste code for products that are used in different industries.
The keys listed are to be understood as recommendations for the user.

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Consult the appropriate local waste disposal expert about waste disposal.

Other disposal recommendations:

Completely emptied packages can be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN number or ID number			
UN 3266	UN 3266	UN 3266	UN 3266
14.2. UN proper shipping name			
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... %Cl active, sodium chlorite)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... %Cl active, sodium chlorite)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... %Cl active, sodium chlorite)	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (sodium hypochlorite, solution ... %Cl active, sodium chlorite)
14.3. Transport hazard class(es)			
 8	 8	 8	 8
14.4. Packing group			
II	II	II	II
14.5. Environmental hazards			
		 MARINE POLLUTANT	No
14.6. Special precautions for user			
Special Provisions: 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Hazard identification number (Kemler No.):** 80 **Classification code:** C5 **Tunnel restriction code:** (E)	**Special Provisions:** 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **Classification code:** C5	**Special Provisions:** 274 **Limited quantity (LQ):** 1 L **Excepted Quantities (EQ):** E2 **EmS-No.:** F-A, S-B	**Special Provisions:** A3 **Limited quantity (LQ):** Y840 **Excepted Quantities (EQ):** E2

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Other regulations (EU):

Hazard categories:

- E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1
- E2 Hazardous to the Aquatic Environment in Category Chronic 2

Quantity threshold (in tonnes) for application in lower tier establishments 100 t Quantity threshold (in tonnes) for application in upper-tier establishments 200 t Does not contain a REACH candidate substance.

Does not contain a substance listed in REACH Annex XIV.

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
DIN	German Institute for Standardization / German Industrial Standard
DNEL	derived no-effect level
EC_{50}	Effective Concentration 50%
EN	European Standard
ES	Exposure scenario
EWC	European Waste Catalogue
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
ISO	International Standards Organisation
KG	Kilogram
LC_{50}	Lethal (fatal) Concentration 50%
LD_{50}	Lethal (fatal) Dose 50%
MAK	Maximum concentration in the workplace air (CH)
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety & Health
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Cooperation and Development
OSHA	Occupational Safety & Health Administration
PBT	Persistent and bioaccumulative and toxic
PC	Product category
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation and Authorization of Chemicals
RID	Dangerous goods regulations for transport by rail
SCL	Specific concentration limit
TRHS	Technical rules for hazardous substances
UN	United Nations

16.3. Key literature references and sources for data

Substance name	Type	source of supply
sodium hypochlorite, solution ... % Cl active CAS No.: 7681-52-9 EC No.: 231-668-3	LC_{50} Acute inhalation toxicity (vapour); EC_{50}; NOEC; LOEC	Source: European Chemicals Agency, http://echa.europa.eu/

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals *(Met. Corr. 1)*	H290: May be corrosive to metals.	On basis of test data.
Acute toxicity (dermal) *(Acute Tox. 4)*	H312: Harmful in contact with skin.	Calculation method.
Skin corrosion/irritation *(Skin Corr. 1)*	H314: Causes severe skin burns and eye damage.	Calculation method.
Serious eye damage/eye irritation *(Eye Dam. 1)*	H318: Causes serious eye damage.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Acute 1)*	H400: Very toxic to aquatic life.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 2)*	H411: Toxic to aquatic life with long lasting effects.	Calculation method.

16.5. List of relevant hazard statements and/or precautionary statements from sections 2 to 15

Hazard statements	
H271	May cause fire or explosion; strong oxidiser.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Supplemental hazard information	
EUH031	Contact with acids liberates toxic gas.

16.6. Training advice

No data available

16.7. Additional information

No data available