



## SAFETY DATA SHEET SODIUM HYPOCHLORITE

Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

#### 1.1. Product identifier

Product name	SODIUM HYPOCHLORITE
Chemical name	NaOCl
Product number	DD.44.13
REACH registration number	01-2119488154-34-0081
CAS number	7681-52-9
EC number	231-668-3

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Drinking water disinfectant, Pool water disinfectant
Uses advised against	No specific uses advised against are identified.

#### 1.3. Details of the supplier of the safety data sheet

Supplier	Koruma Klor Alkali Sanayi ve Ticaret A.Ş. Derince Factory Deniz Mah. Petrol Ofisi Cad. No: 43 41100 Derince-Kocaeli/TURKEY Phone: +90 262 239 22 70 / 4 hat Fax: +90 262 239 22 78
	Kırıkhan Factory Menderes Mah. 898 Sk. No:6/A Kırıkhan-Hatay/TURKEY Phone: +90 326 345 28 11 Fax:+90 326 345 27 97
	Denizli Factory Demokrasi Mah. Atatürk Cad. No: 237 Kocabaş kasabası Honaz-Denizli/TURKEY Phone: +90 258 814 52 66 Fax: +90 258 814 52 66
Contact person	koruma@koruma.com.tr

#### 1.4. Emergency telephone number

Emergency telephone	Koruma Phone: +90 262 239 22 70
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC 1272/2008)

Physical hazards	Not Classified
Health hazards	Skin Corr. 1B - H314 Eye Dam. 1 - H318
Environmental hazards	Aquatic Acute 1 - H400

#### 2.2. Label elements

# SODIUM HYPOCHLORITE

**EC number** 231-668-3

**Hazard pictograms**



**Signal word** Danger

**Hazard statements** H314 Causes severe skin burns and eye damage.  
H400 Very toxic to aquatic life.

**Precautionary statements** P260 Do not breathe vapour/ spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
P310 Immediately call a POISON CENTER/ doctor.  
P501 Dispose of contents/ container in accordance with national regulations.  
P390 Absorb spillage to prevent material damage.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

**Supplemental label information** EUH031 Contact with acids liberates toxic gas.

**Contains** sodium hypochlorite, solution ... % Cl active

## 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>Sodium hypochlorite</b>	<b>% 12,0-12,5</b>
CAS number: 7681-52-9	EC number: 231-668-3
M factor (Acute) = 10	
<b>Classification</b>	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	
Aquatic Acute 1 - H400	

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information** Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. Chemical burns must be treated by a physician.

**Inhalation** Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. Rinse nose and mouth with water. Never give anything by mouth to an unconscious person. Get medical attention if symptoms are severe or persist.

**Ingestion** Rinse mouth thoroughly with water. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Get medical attention.

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<b>Skin contact</b>	It is important to remove the substance from the skin immediately. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention. Chemical burns must be treated by a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.
<b>Protection of first aiders</b>	It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.
<b>Ingestion</b>	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
<b>Skin contact</b>	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.
<b>Eye contact</b>	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.

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

<b>Notes for the doctor</b>	Treat symptomatically.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

### 5.2. Special hazards arising from the substance or mixture

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Severe corrosive hazard. Water used for fire extinguishing, which has been in contact with the product, may be corrosive.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Very toxic or corrosive gases or vapours.

### 5.3. Advice for firefighters

<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Avoid discharge to the aquatic environment. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Regular protection may not be safe. Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Avoid inhalation of dust and vapours. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.

#### 6.2. Environmental precautions

**Environmental precautions** Avoid discharge into drains or watercourses or onto the ground. Avoid discharge to the aquatic environment.

#### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. This product is corrosive. If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. The contaminated absorbent may pose the same hazard as the spilled material. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dangerous for the environment. Do not empty into drains. For waste disposal, see Section 13.

#### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. Avoid contact with acids. Contact with acids liberates toxic gas. This product is corrosive. Immediate first aid is imperative. Avoid discharge to the aquatic environment. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage.

**Storage class** Corrosive storage.

**Shelf life** 23 days

#### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure controls/Personal protection

#### 8.1. Control parameters

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### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate ventilation.

#### Eye/face protection

Avoid contact with eyes. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.

#### Hand protection

Wear protective gloves. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

#### Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact.

#### Hygiene measures

Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.

#### Respiratory protection

No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.

#### Environmental exposure controls

Keep container tightly sealed when not in use. Avoid release to the environment.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Appearance	Clear, yellowish liquid.
Odour	Chlorine.
pH	( % 1 solution) 11-12
Melting point	-25°C
Initial boiling point and range	110°C @
Flash point	Not applicable.
Bulk density	1,200-1,230 kg/m <sup>3</sup>
Solubility(ies)	Miscible with water.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.

#### 9.2. Other information

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

##### Reactivity

There are no known reactivity hazards associated with this product.

#### 10.2. Chemical stability

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**Stability** Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** No potentially hazardous reactions known.

### 10.4. Conditions to avoid

**Conditions to avoid** There are no known conditions that are likely to result in a hazardous situation.

### 10.5. Incompatible materials

**Materials to avoid** Acids.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Corrosive gases or vapours.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Skin Corr. 1B - H314 Causes severe burns.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Eye Dam. 1 - H318 Corrosive to skin. Corrosivity to eyes is assumed.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** Based on available data the classification criteria are not met.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### IARC carcinogenicity

None of the ingredients are listed or exempt.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development**

Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** Not classified as a specific target organ toxicant after a single exposure.

#### Specific target organ toxicity - repeated exposure

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<b>STOT - repeated exposure</b>	Not classified as a specific target organ toxicant after repeated exposure.
<b><u>Aspiration hazard</u></b>	
<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b>General information</b>	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	Corrosive to the respiratory tract. Symptoms following overexposure may include the following: Severe irritation of nose and throat.
<b>Ingestion</b>	May cause chemical burns in mouth, oesophagus and stomach. Symptoms following overexposure may include the following: Severe stomach pain. Nausea, vomiting.
<b>Skin contact</b>	Causes severe burns. Symptoms following overexposure may include the following: Pain or irritation. Redness. Blistering may occur.
<b>Eye contact</b>	Causes serious eye damage. Symptoms following overexposure may include the following: Pain. Profuse watering of the eyes. Redness.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	No specific target organs known.

### AçıklamalarExplanations

#### SECTION 12: Ecological information

##### 12.1. Toxicity

**Toxicity** Aquatic Acute 1 - H400 Very toxic to aquatic life.

##### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 0,033-0,097 mg/l, Clupea harengus (Herring)

**Acute toxicity - aquatic invertebrates** EC<sub>0</sub>, 24 hours: 0,07-07 mg/l, Daphnia magna

**Acute toxicity - microorganisms** EC<sub>50</sub>, 96 hours: 0,4 mg/l, Algs

##### Ecological information on ingredients.

##### Sodium hypochlorite

##### Acute aquatic toxicity

**LE(C)<sub>50</sub>** 0.01 < L(E)C<sub>50</sub> ≤ 0.1

**M factor (Acute)** 10

##### 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

##### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

##### 12.4. Mobility in soil

**Mobility** No data available.

##### 12.5. Results of PBT and vPvB assessment

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**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information** The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

**General** For limited quantity packaging/limited load information, consult the relevant modal documentation using the data shown in this section.

### 14.1. UN number

**UN No. (ADR/RID)** 1791

**UN No. (IMDG)** 1791

**UN No. (ICAO)** 1791

**UN No. (ADN)** 1791

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** HYPOCHLORITE SOLUTION

**Proper shipping name (IMDG)** HYPOCHLORITE SOLUTION

**Proper shipping name (ICAO)** HYPOCHLORITE SOLUTION

**Proper shipping name (ADN)** HYPOCHLORITE SOLUTION

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID classification code** C9

**ADR/RID label** 8

**IMDG class** 8

**ICAO class/division** 8

**ADN class** 8

### **Transport labels**





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### 14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ICAO packing group	II
ADN packing group	II

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



### 14.6. Special precautions for user

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

EmS	F-A, S-B
ADR transport category	2
Emergency Action Code	2R
Hazard Identification Number (ADR/RID)	80
Tunnel restriction code	(E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

## SECTION 15: Regulatory information

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

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
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### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

## SECTION 16: Other information

Classification procedures according to Regulation (EC) 1272/2008	Eye Dam. 1 - H318: Skin Corr. 1B - H314: : Calculation method. Aquatic Acute 1 - H400: : Calculation method.
Training advice	Read and follow manufacturer's recommendations.
Issued by	İrem ELİTEZ- irem.elitez@koruma.com.tr
Revision date	25/06/2020

## SODIUM HYPOCHLORITE

<b>Revision</b>	09
<b>Supersedes date</b>	30/06/2016
<b>SDS number</b>	DD.44.13
<b>Hazard statements in full</b>	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H400 Very toxic to aquatic life.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.