SAFETY DATA SHEET
Sodium Hypochlorite Solution 12%

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

1.1. Product identifier

Product name: Sodium Hypochlorite Solution 12%

REACH registration notes: Not registered – not for sale in the EU

CAS number: 7681-52-9

EU index number: 017-011-00-1

EC number: 231-668-3

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

Identified uses: Electroplating auxiliary

Application of the substance / the mixture: Should read, water treatment, cleaning & sterilising agent, Electroplating auxiliary

Uses advised against: No information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer: Jubail Chemical Industries Company (JANA)
P.O. BOX - 11919
Jubail Industrial City - 31961
Saudi Arabia
Tel. +966 13 3478888 ext 351
Fax. +966 13 3476705
safety@nama.com.sa

Only Representative REACH 1907/2006/EC Article 8
NAMA Germany
Teichstrasse 38
D-79539 Lörrach
Tel. + 49 762 1940 5410
Fax. + 49 762 1940 5420

1.4. Emergency telephone number

Emergency telephone: Emergency CONTACT (24-Hour-Number): GBK GmbH +49 (0)6132-84463

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

EC number: 231-668-3
**Sodium Hypochlorite Solution 12%**

**Pictogram**

- [Image of pictogram]

**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.
- P303+P361+P353 IF ON SKIN (or hair): 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/ doctor.
- P405 Store locked up.
- P501 Dispose of contents/ container in accordance with national regulations.

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

**Contains**
- Sodium hypochlorite, solution ... % Cl active, Sodium Hydroxide Solution

**2.3. Other hazards**

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

<table>
<thead>
<tr>
<th>Sodium hypochlorite, solution ... % Cl active</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 7681-52-9</td>
<td></td>
</tr>
<tr>
<td>EC number: 231-668-3</td>
<td></td>
</tr>
<tr>
<td>M factor (Acute) = 1</td>
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</tr>
</tbody>
</table>

**Classification**
- Skin Corr. 1B - H314
- Eye Dam. 1 - H318
- Aquatic Acute 1 - H400

<table>
<thead>
<tr>
<th>Sodium Hydroxide Solution 50%</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
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<td>CAS number: 1310-73-2</td>
<td></td>
</tr>
<tr>
<td>EC number: 215-185-5</td>
<td></td>
</tr>
</tbody>
</table>

**Classification**
- Skin Corr. 1A - H314
- Eye Dam. 1 - H318

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**
- Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

**Inhalation**
- IF INHALED: Place unconscious person on their side in the recovery position and ensure breathing can take place. Move affected person to fresh air at once. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.
**Sodium Hypochlorite Solution 12%**

**Ingestion**

IF SWALLOWED: Rinse mouth thoroughly with water. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Administer medicinal carbon. Remove person to fresh air and keep comfortable for breathing. Get medical attention immediately.

**Skin contact**

IF ON SKIN: Get medical attention immediately. Wash skin thoroughly with soap and water or use an approved skin cleanser.

**Eye contact**

IF IN EYES: Remove any contact lenses and open eyelids wide apart. Rinse cautiously with water for several minutes. Get medical attention immediately.

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

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

Notes for the doctor

No information available.

### SECTION 5: Firefighting measures

**5.1. Extinguishing media**

Suitable extinguishing media: Water spray, dry powder or carbon dioxide. Alcohol-resistant foam.

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

Specific hazards: Oxidising. Thermal decomposition or combustion products may include the following substances: Hydrogen chloride (HCl). Chlor, Dichlordioxid.

**5.3. Advice for firefighters**

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

### SECTION 6: Accidental release measures

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

Personal precautions: If ventilation is inadequate, suitable respiratory protection must be worn. Wear protective clothing, gloves, eye and face protection.

For non-emergency personnel: Keep unnecessary and unprotected personnel away from the spillage.

**6.2. Environmental precautions**

Environmental precautions: Flush away spillage with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Use water spray to reduce vapours.

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

Methods for cleaning up: Absorb spillage to prevent material damage. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and dispose of spillage as indicated in Section 13. Provide adequate ventilation.

**6.4. Reference to other sections**

Reference to other sections: Follow precautions for safe handling described in this safety data sheet. For personal protection, see Section 8. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

Usage precautions: Provide adequate general and local exhaust ventilation. Prevent formation of aerosols.

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

Storage precautions: Avoid contact with acids and alkalis. Do not use the following: Other metals or alloys.
Sodium Hypochlorite Solution 12%

Storage class
Keep container tightly closed and in a well-ventilated place.

7.3. Specific end use(s)
Specific end use(s) No information available.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters
Occupational exposure limits
This product does not contain any hazardous ingredients, or ingredients with national workplace exposure limits.

DNEL
- Workers - Inhalation; Acute: 3.1 mg/m³
- Workers - Inhalation; Long term: 1.55 mg/m³

PNEC
- General population - Fresh water: 0.0002 mg/l
- Marine water: 4.02 - 10⁻³ mg/l
- Industry - STP: 0.03 mg/l

8.2. Exposure controls

Protective equipment

Personal protection
Keep away from food, drink and animal feeding stuffs. Remove contaminated clothing and wash the skin thoroughly with soap and water after work. Avoid inhalation of vapours/spray and contact with skin and eyes. Use appropriate skin cream to prevent drying of skin.

Eye/face protection
Wear tight-fitting, chemical splash goggles or face shield.

Hand protection
Wear protective gloves. For users with sensitive skin, it is recommended that suitable protective gloves are worn. It is recommended that gloves are made of the following material: Nitrile rubber. Polyvinyl chloride (PVC). 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.

Other skin and body protection
Wear protective clothing.

Hygiene measures
Wash hands thoroughly after handling.

Respiratory protection
Gas filter, type B. In case of insufficient ventilation, wear suitable respiratory equipment. In case of possible exposure to degradation products, use suitable respiratory protection. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance Fluid
Colour Green-yellow
Odour Like Chlorine
pH >11
Melting point -20 at -30°C
Initial boiling point and range 104 °C (DIN 51751)
Sodium Hypochlorite Solution 12%

Flash point  
Not applicable.

Vapour pressure  
20 hPa @ 20°C

Density  
1.1 g/cm³

Solubility(ies)  
Miscible with water.

Auto-ignition temperature  
Product is not self-igniting

Explosive properties  
There are no chemical groups present in the product that are associated with explosive properties.

Organic solvents  
0.0%

VOC (EC)  
0.00%

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity  
No information available.

10.2. Chemical stability
Stability  
Stable at normal ambient temperatures and when used as recommended.

Thermal decomposition / conditions to be avoided
Avoid exposure to high temperatures or direct sunlight.

10.3. Possibility of hazardous reactions
Possibility of hazardous reactions  
Avoid contact with strong reducing agents. Chlorine.

10.4. Conditions to avoid
Conditions to avoid  
No information available.

10.5. Incompatible materials
Materials to avoid  
Contact with acids liberates very toxic gas.

10.6. Hazardous decomposition products
Hazardous decomposition products  
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity - oral
Notes (oral LD₅₀)  
LD₅₀ 58000 mg/kg, Oral, Rat

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

Serious eye damage/irritation  
Causes serious eye damage.

Respiratory sensitisation
Respiratory sensitisation  
Based on available data the classification criteria are not met.
Sodium Hypochlorite Solution 12%

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

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

Specific target organ toxicity - single 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

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

12.1. Toxicity
Acute toxicity - fish
EC₅₀, 96 hours: 0.141 mg/l, Daphnia magna
LC₅₀, 96 hours: 0.01-0.1 mg/l, Onchorhynchus mykiss (Rainbow trout)
, : 5.9 mg/l, Pimephales promelas (Fat-head Minnow)

12.2. Persistence and degradability
Persistence and degradability
No information available.

12.3. Bioaccumulative potential
Bioaccumulative potential
No information available.

12.4. Mobility in soil
Mobility
No information available.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Disposal methods
Dispose of waste via a licensed waste disposal contractor. Dispose of waste product or used containers in accordance with local regulations Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of the local water authority.

European waste catalogue: 06 03 13* Solid salts and solutions containing heavy metals

SECTION 14: Transport information

14.1. UN number
UN No. (ADR/RID) UN1791
UN No. (IMDG) UN1791
UN No. (ICAO) UN1791

14.2. UN proper shipping name
Sodium Hypochlorite Solution 12%

Proper shipping name (ADR/RID) UN1791 HYPOCHLORITE SOLUTION
Proper shipping name (IMDG) HYPOCHLORITE SOLUTION
Proper shipping name (ICAO) 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

Transport labels

14.4. Packing group
ADR/RID packing group II
IMDG packing group II
ICAO packing group II

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
IMDG Code segregation group 8. Hypochlorites
Danger code(Kemler): 80
EmS F-A, S-B
ADR transport category 2
Emergency Action Code 2X
Hazard Identification Number (ADR/RID) 80
Tunnel restriction code (E)
Segregation Code: SG35 Stow "separated from" acids.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
ADR and IMDG:
Excepted quantities (EQ): Code: E2
Limited quantities (LQ) 1L
Maximum net quantity per inner packaging: 30 ml
Sodium Hypochlorite Solution 12%

Maximum net quantity per outer packaging: 500 ml
Transport Category: 2
Tunnel Restriction Code: E
UN "Model Regulation": UN1791 HYPOCHLORITE SOLUTION, 8, II

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations
The substance is classified and labelled according to the CLP regulation.

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet
RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
IATA-DGR: Dangerous Goods Regulation by the "International Air Trasport Association"(IATA).
ICAO: International Civil Aviation Organisation
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
IMDG: International Maritime Dangerous Goods.
IATA: International Air Transport Association.
GHS: Globally Harmonized System.
EINECS: European Inventory of Existing Commercial and Chemical Substances
CAS: Chemical Abstracts Service.
VOC: Volatile Organic Compounds (USA,EU)
DNEL: Derived No Effect Level.
PNEC: Predicted No Effect Concentration.
LC₅₀: Lethal Concentration to 50 % of a test population.
LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
vPvB: Very Persistent and Very Bioaccumulative.
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
Aquatic Acute 1 - H400
Aquatic Acute = Hazardous to the aquatic environment (acute)
WGK: German Water Hazard Class.

Revision date 01/11/2018
Revision 01
Supersedes date 01/07/2018
SDS number 4592
Hazard statements in full
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
Sodium Hypochlorite Solution 12%

Disclaimer

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.