



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
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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
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1.4. Emergency telephone number

Emergency telephone	JANA Tel. +966 509058826 Tel. +966 501580466
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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 Solution 12%

EC number 231-668-3

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

Sodium hypochlorite, solution ... % Cl active 10-30% CAS number: 7681-52-9 EC number: 231-668-3 M factor (Acute) = 1
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318 Aquatic Acute 1 - H400
Sodium Hydroxide Solution 50% 1-5% CAS number: 1310-73-2 EC number: 215-185-5
Classification Met. Corr. 1 - H290 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.

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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.
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, Dichlorodioxid

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.

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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.

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

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Melting point	-20 at - 30°C
Initial boiling point and range	104 °C (DIN 51751)
Flash point	Not applicable.
Vapour pressure	20 hPa @ 20°C
Density	1.1 g/cm ³
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%

9.2. Other information

Other information No information available.

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

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

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

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Respiratory sensitisation

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

Carcinogenicity

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

Reproductive toxicity

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

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

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

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14.2. UN proper shipping name

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

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Maximum net quantity per inner packaging:	30 ml
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 Transport Association"(IATA).

ICAO: International Civil Aviation Organisation

ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

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.

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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.

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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.