



Fertilizers & Chemicals Ltd., P.O.Box 1428, 31 013 Haifa, Israel.+972-4-846-8178, Fax: +972-4-846-8296

## F&C SAFETY DATA SHEET

**Catalog No.: 316118**

**Product name: Sodium Hypochlorite Solution**

**1. Identification of the substance/preparation and of the company/undertaking**

**Catalogue No.: 316118**

**Product name: Sodium Hypochlorite Solution**

**Manufacturer/supplier identification**

**Company:** Fertilizers & Chemicals Ltd.  
P.O.box 1428, Haifa 31013, Israel

**Contact for information:**Tel +972-4-8468178/9 Fax +972-4-8468296

**Emergency Tel. No.:** +972-4-8451578 Fax +972-4-8468110

**2. Composition/information on ingredients**

Aqueous solution.

**Synonyms**

Javell water, bleach liquor, chlorox , chloros

**Hazardous ingredients (typical value – not a specification)**

Sodium hypochlorite 150 g/l

Active chlorine 10-13%

NaOH Free 2-2.5%

**Name according to EC directives: Sodium Hypochlorite Solution**

Hazard symbols: C Corrosive R-phrases R-31,34

EC-index-No.: 017-011-01-9 causes severe burns

CAS-No.: 7681-52-9 content:10-13%  
(as available chlorine)

Molecular formula: NaOCl



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### 3. Hazards identification

Oxidizing

Corrosive

Contact with combustible material may cause fire.

Contact with acids liberates toxic gas.

Causes burns

### 4. First aid measures

**After inhalation:** fresh air. Summon doctor.

**After skin contact:** wash off with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing & launder before wearing. Get medical attention if irritation persists after washing.

**After eye contact:** rinse out with plenty of water for at least 15 minutes with the eyelid held wide open. Immediately summon eye specialist.

**After swallowing:** make victim drink plenty of water (if necessary several liters), avoid vomiting (risk of perforation!). Immediately summon doctor. Do not attempt to neutralize.

### 5. Fire fighting measures

Hazard class O Oxidizing

Use extinguishing media appropriate for surrounding fire.

Cool containers exposed to flames with water from the side until well after fire is out. Move container from fire area if it can be done without risk.

#### **Special risks:**

Toxic gases will form upon combustion.

Strong oxidant which reacts violently with combustible substances and reducing agents with risk of fire and explosion.

#### **Special protective equipment for fire fighting:**

Do not stay in dangerous zone without suitable chemical protection.

Wear protective clothing and self-contained breathing apparatus, in positive pressure mode. Prevent contact with skin and eyes.

### 6. Accidental release measures



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**Person-related precautionary measures:**

Evacuate area. Do not inhale vapours/aerosols. Stay upwind of spill  
Avoid substance contact. Wear respirator, chemical suit, PVC gloves, boots and eye protection.

**Procedures for cleaning/absorption:**

Absorb spill with non-combustible absorbent material (sand or vermiculite)  
Place material in closed container for treatment or disposal and wash down area with water. Flush area with water. Ventilate area.

**Environmental-precaution:**

None noted

### 7. Handling and storage

**Handling:**

Keep away from heat, sparks and open flame.  
Avoid creating aerosols. Ensure adequate ventilation.

**Storage:**

Keep in cool, dry, ventilated storage in tightly closed containers.  
Protect from direct light, direct sunrays and heat. Do not store near, nor allow contact with clothing and other combustible material.

**Additional information**

Reacts violently with Ammonium salts, Aziridine, Methanol, Phenylacetonitrile sometimes resulting in explosions. Reacts with amines to form explosively unstable N-Chloroamines. Reaction with Formic acid, becomes explosive at 55°C.

### 8. Exposure controls/personal protection

**Ventilation requirements**

Mechanical exhaust required. Ventilate at floor level.

**Personal protective equipment:**

**Respiratory protection:** Wear appropriate NIOSH/MSHA-approved respirator

**Eye protection:** Safety goggles and face shield (8 inch minimum)

**Hand protection:** Chemical resistant gloves

**Skin protection:** Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be



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ascertained with the respective supplier.

**Other protective equipment:** Safety shower and eye bath equipment

**Industrial hygiene:**

Avoid prolonged or repeated exposure

Change contaminated clothing and immerse in water.

Wash hands and face after working with substance.

### 9. Physical and chemical properties

Form :	liquid (aqueous solution)
M.F.	NaClO
M.W.	74.44
Colour:	Greenish yellow to colourless
Odour:	Disagreeable (slightly chlorine odour)
pH value (20°C)	11-12
Melting temperature	18°C (crystals)
Boiling temperature	111°C
Flammability	not applicable
Autoflammability	not applicable
Flash point	will not flash
Explosion limits	lower not applicable data upper not applicable data
Relative vapour density	not available
Density (20°C)	1.21-1.23 g/cm <sub>3</sub>
Solubility in water (20°C)	completely miscible
Vapour pressure	17.5 mm Hg (at 20°C)
Vapour density	No data
Decomposition	Decomposed by CO <sub>2</sub> from air, when heated or when exposed to sunlight

### 10. Stability and reactivity

Stable under ordinary handling and storage conditions.

**Conditions to be avoided**



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Avoid heat, sparks, flames, direct sun light.

**Substances to be avoided**

strong acids, organic materials, finely powdered metals. Forms explosive mixture with: Amines, Ammonia, Ammonium salts, Methanol.

**Hazardous decomposition or combustion products**

hydrogen chloride gas, Chlorine, Sodium/Sodium oxides

**Hazardous Polymerization**

will not occur

### 11. Toxicological information

**Acute toxicity**

Toxicity method

Inhalation No data

Ingestion LD<sub>50</sub> (12.5% solution) 5 mg/kg acute oral rat

Skin No data

Mutagenicity Human mutation data reported

Teratogenicity: No data

**Further toxicological information**

**Inhalation:** Harmful, extremely destructive to tissue of the mucous membranes and upper respiratory tract.

**Skin contact:** Extremely destructive to skin

**Skin absorption:** Harmful if absorbed.

**Eye contact:** extremely destructive to eyes.

**Ingestion:** Harmful if swallowed, sore throat, abdominal pain, vomiting.

**Chronic Effects:**

Prolonged or repeated exposure may cause allergic reaction in certain sensitive individuals.

**Carcinogenity:** Not listed as a carcinogen by NTP, IARC, ACGIN or OSHA

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated

RTECS# NH 3486300

Hypochlorous acid, Sodium salt.



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### 12. Ecological information

**Acute toxicity** Aquatic toxicity stated to be 10-100 mg/l  
**Growth inhibition** No data  
Interference with Biotreatment: Not known to bioaccumulate  
**Biodegradability**  
Aerobic No data  
Anaerobic No data

### 13. Disposal considerations

**Product:**

Dispose of in accordance with local authority requirements.  
Neutralize with Sodium Thiosulfate, then use water to dilute, then wash away.

**Packaging:**

Disposal of in accordance with local authority requirements. Handle contaminated packaging in the same way as the substance itself. Prior to disposal rinse thrice each drum or container with water, emptying completely each washing.

### 14. Transport information

Hazard class Class 8 corrosive  
Hazard label Corrosive  
UN Number 1791  
**Transport over land ADR/RID**  
ADR/RID class : 8 substance 61b  
Name of material : 1791 Sodium Hypochlorite Solution  
**Sea transport IMDG**  
IMDG class 8: UN-No.: 1791 Packaging group: III  
EMS 8 – 08 MFAG 741  
**Correct technical name:** Sodium Hypochlorite Solution

#### **Air transport IACO**

IACO class: 8 UN/ID No. 1791 Packaging group: III  
**Correct technical name:** Sodium Hypochlorite Solution



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### 15. Regulatory information

Labeling according to EC Directives:

Symbol: C

Corrosive

R-phrases: 31-34-36/38

Contact with acids liberates toxic gas causes burns irritating to eyes and skin

S-phrases: 2-26-28-34

Keep out of reach of children. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. After contact with skin wash immediately with plenty of water. Avoid shock and friction.

### 16. Other information

**Date of issue: 22.12.98**

This product will react explosively with methanol. OES as chlorine gas – 8hr TWA 0.5 ppm – 1.5 mg/m<sup>3</sup>. 10 min steel 1 ppm 3 mg/m<sup>3</sup>

Sodium hypochlorite reacts to form explosive products with amines and ammonium salts.

All information, recommendations and suggestions herein concerning our products are based upon tests and data believed to be reliable, however, it is the users responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Since the actual use by others is beyond our control, no guarantee, expressed or implied is made by **F&C**, as to the effects of such use, the results to be obtained or the safety and toxicity of the product nor does **F&C** assume any liability arising out of the use, by others, of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or governmental regulation.



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