	SAFETY DATA SHEET (SDS)	
	SODIUM HYPOCHLORITE	
	Document #: SCIL-SDS-03	Issue Date: 01-Jan-23
	Revision: 0	Next Rev: 31-Dec-27

1. Identification

- 1.1 Product identifier:** Sodium hypochlorite solution
Synonym(s): Liquid Bleach, Hypochlorite, Hypo and Chlorine Bleach
Recommended use: Laboratory chemicals, Manufacture of substances
Restrictions on use: Not determined.
Reach No. This product is a mixture. REACH Registration Number see section 3.
- 1.2 Details of the supplier of the Safety data sheet Manufacturer**
Company Name Sitara Chemical Industries Ltd.+
Address: 32-K.M, Sheikhpura Road, Faisalabad
Telephone Number: (+92) 041-4689141-5
Emergency Number (+92) 041-4689141-5 (Ext.1161)
Website <http://www.sitara.com.pk>

2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or Mixture.**
Classification according to Regulation (EC) No 1272/2008
 Skin corrosion Sub-category 1B
 Serious eye damage Category 1
 Short-term (acute) aquatic hazard Category 1
 Long-term (chronic) aquatic hazard Category 2
 For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 Label Elements

Labeling according Regulation (EC) No 1272/2008

Pictogram



Signal word Warning

Hazard statement(s)


Causes severe skin burns and eye damage.
 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Avoid release to the environment.
 Wear protective gloves, clothing/ eye and face protection.
 IF ON SKIN (or hair): Take off all contaminated clothing. Rinse skin with water.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Cautiously rinse with water for several minutes.
 Wash contaminated clothing before reuse.

2.3 Other hazards:

This substance/mixture contains no components considered to be persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Formula : NaOCl
Molecular weight : 74.44 g/mol

Sodium hypochlorite solution			
Component		Classification	Concentration
CAS-No.	7681-52-9	Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; H314, H318, H335, H400, H410 Concentration limits: >= 5 %: , EUH031; M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	>= 10 - < 20 %
EC-No.	231-668-3		
Index-No.	017-011-00-1		

*A registration number is not available for this substance as the substance or its use is exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006.

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

4.1 Description of first-aid measures

General advice: First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled: After inhalation move to fresh air. Call in physician.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact:

Rinse out with plenty of water. Remove contact lenses. Immediately call in ophthalmologist

If swallowed: Make victim drink water, avoid vomiting (risk of perforation). Call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and environment.

Unsuitable extinguishing media: For this substance no limitations of extinguishing agents are given.


5.2 Special hazards arising from the substance or mixture

Hydrogen chloride gas.

Sodium oxides

Not combustible. Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

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Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid substance contact. Do not breathe vapors, aerosols. Ensure adequate ventilation.

6.2 Environmental precautions.

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Observe possible material restrictions. Dispose of properly. Clean up affected area.

6.4 Reference to other sections:

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions : Tightly closed. Do not store near acids.

Storage stability : Recommended storage temperature 2 - 8 °C

Storage class ; Storage class (TRGS 510): 8B: Non-combustible, corrosive materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.1 no other specific uses are stipulated

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with workplace control parameters.

8.2 Exposure controls

Personal protective equipment

Eye/face protection: Use equipment for eye protection

Skin protection: Chemical resistant gloves

Body Protection: protective clothing

Respiratory protection: Required when vapors are generated.

Other: Wear suitable protective clothing.

Control of environmental exposure: Do not let product enter drains.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state / Form: Liquid

Color: Greenish to yellow


Odor: an odor of chlorine

pH: 11-14, dependent upon % weight as NaOCl

Melting point/freezing point: -28.9 °C

Initial boiling point and boiling range: 111 °C

Flash Point: Not applicable

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Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive limits	
Vapor pressure:	23.3 hPa at 20 °C
Vapor density:	No data available
Density:	1,206 g/mL at 25 °C
Relative density:	No data available
Solubility in water:	Completely miscible at 20 °C.
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No data available.
Viscosity: Viscosity, kinematic / dynamic	No data available
Explosive properties	Not classified as explosive
Oxidizing properties	none
9.2 Other safety information:	No data available

10. Chemical Stability & Reactivity Information

10.1	Reactivity:	No data available
10.2	Chemical Stability:	The product is chemically stable under standard ambient conditions.
10.3	Possibility of hazardous reactions:	Violent reactions possible with generates dangerous gases or fumes in contact with: acids and Ammonia.
10.4	Conditions to avoid:	It reacts violently with strong acids.
10.5	Incompatible Materials:	Strong acids, Organic materials. Reacts violently with ammonium salts, aziridine, methanol, and aliphatic or aromatic amines to form explosively unstable n-chlor 55°C.
10.6	Hazardous Decomposition Products:	In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Mixture	
	Acute toxicity:	Oral: No data available
	Symptoms:	If ingested, severe burns of the mouth and throat, esophagus and the stomach.
	Skin corrosion/irritation:	No data available
	Serious eye damage/eye irritation:	Mixture causes serious eye damage. Risk of blindness! Necrosis
	Respiratory or skin sensitization:	No data available
	Germ cell mutagenicity:	No data available
	Carcinogenicity:	No data available
	Reproductive toxicity:	No data available
	Specific target organ toxicity - single exposure:	No data available
	Specific target organ toxicity - repeated exposure:	No data available
	Aspiration hazard:	No data available
11.2	Additional Information	
	Endocrine disrupting properties	
	Product:	
	Assessment	
	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission	

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Regulation (EU) 2018/605 at levels of 0.1% or higher. Material is destructive to tissue of the mucous membranes, eyes, and skin.

Components

Sodium hypochlorite solution

Acute toxicity:

LD50 Oral - Rat - male - 1.100 mg/kg
(OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 20.000 mg/kg
(OECD Test Guideline 402).

Symptoms: burns of mucous membranes, Cough, Shortness of breath, possible, damages: damage of respiratory tract

Dermal No data available

Skin corrosion/irritation: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

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

Respiratory or skin sensitization: Not a skin sensitizer.

Germ cell mutagenicity: No data available

Carcinogenicity: No data available.

Reproductive toxicity: No data available

Specific target organ toxicity - single exposure: No data available
May cause respiratory irritation.

Specific target organ toxicity - repeated exposure: No data available

Aspiration hazard: No data available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Mixture: No data available

12.2 Persistence and degradability No data available

12.3 Bio accumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects No data available

Components

Sodium hypochlorite solution.


Toxicity to fish: LC50 - *Gambusia affinis* (Mosquito fish) - 125 mg/l - 96 h

Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* (Water flea) – 0.04 mg/l - 48 h

Remarks: (Regulation (EC) No 1272/2008, Annex VI)
(ECOTOX Database)

Toxicity to algae: Static test ErC50 - *Pseudokirchneriella subcapitata* - 0,036 mg/l - 72 h

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(OECD Test Guideline 201)

Toxicity to bacteria: static test EC50 - activated sludge – 77.1 mg/l - 3 h

(OECD Test Guideline 209)

Remarks: (ECHA)

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1791 IMDG: 1791 IATA: 1791

14.2 UN proper shipping name

ADR/RID: Sodium Hypochlorite Solution

IMDG: Sodium Hypochlorite Solution

IATA: Sodium Hypochlorite Solution

14.3 Transport hazard class (es)

ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: Yes IMDG Marine pollutant: Yes IATA: no

14.6 Special precautions for user: No data available

15. REGULATORY INFORMATION

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

This material safety data sheet complies with the Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment: A Chemical Safety Assessment was not carried out for this substance.

16. LABELING INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

Contact with acids liberates toxic gas.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause respiratory irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

Toxic to aquatic life with long lasting effects.

Disclaimer:

All information given in this data sheet by the company's technical staff is compiled based on data available at this time. The company accepts no responsibility whatsoever for its accuracy or for any results which may be obtained by customers. Any customer who relies upon any advice or information given in this data sheet by the company or by its technical staff does so entirely at its own risk and the company will not be liable for any loss or damage thereby suffered notwithstanding any want of care on the part of the company or its staff in compiling or giving the advice or information.