

Doc. # NaOCl-MSDS-03Rev. # 01Effective Date: 01.01.2022Title: **MATERIAL SAFETY DATA SHEET (MSDS)****SODIUM HYPOCHLORITE****Section 1: Chemical Product and Company Identification**

Product Name: Sodium Hypochlorite **Contact Information:** ITTEHAD CHEMICALS LIMITED
G.T. Road, Kala Shah Kaku

Chemical Name: Sodium Hypochlorite **Web:** www.ittehadchemicals.com/

Trade Name: Liquid Bleach **E-mail:** info@ittehadchemicals.com

Synonyms: Chlorine bleach, Soda bleach **Phone No.** 0423-7950222-25

Chemical Formula: NaOCl

Recommended Use: Bleaching agent, Chemical Intermediate, Sodium Hypochlorite is an antimicrobial pesticide.

Section 2 : Composition and Information on Ingredients**Composition:**

Components	CAS #	Proportion	Risk Phrases
Sodium hypochlorite	7681-52-9	18-20%	R31, R34, R41, R50
Sodium hydroxide	1310-73-2	<1.5%	R35, R41
Water	7732-18-5	>60%	

Section 3: Hazards Identification**Hazard Classifications:** Not Hazardous**Priority Identifiers:** Not Applicable**Secondary Identifiers:** Not Applicable**Section 4 : First Aid Measures****Eye:** Causes eye burns. May cause irreversible eye injury. Contact with liquid is corrosive to the eyes and causes severe burns.**Skin:** May cause severe irritation and possible burns.**Ingestion:** May cause severe and permanent damage to the digestive tract. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death.

Inhalation: Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty, and possible coma. Causes chemical burns to the respiratory tract. May cause pulmonary edema and severe respiratory disturbances.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion

Notes to Physician: The absence of visible signs or symptoms of burns does NOT reliably exclude the presence of actual tissue damage.

Section 5: Fire and Explosion Data

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

Extinguishing Media:

Substance is non-flammable; use agent most appropriate to extinguish surrounding fire.

Section 6: Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. Provide ventilation.

Section 7: Handling and Storage

Handling:

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Do not get on skin or in eyes. Keep container tightly closed. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

Storage:

Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits:

CAS# 1310-73-2:
United Kingdom, WEL - STEL: 2 mg/m³ STEL
United States OSHA: 2 mg/m³ TWA
Belgium - TWA: 2 mg/m³ VLE France - VME: 2 mg/m³ VME
Germany: 2 mg/m³ TWA (inhalable fraction)
Japan: 2 mg/m³ Ceiling
Malaysia: 2 mg/m³ Ceiling
Spain: 2 mg/m³ VLA-EC
CAS# 7681-52-9:
CAS# 7732-18-5:

Personal Protective Equipment

Eyes: Wear chemical splash goggles.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9: Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear
Color: Colorless to Yellow
Odor: Characteristic bleach odor/Chlorine odor
Odor Threshold: 2 ppm approx.
Flash Point: Not Flammable
Boiling Point/Range: Not available
Freezing/Melting Point: Not available
Auto-ignition Temperature: Not applicable
Flash Point: Not applicable
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Vapor Pressure: Not available

Viscosity:	Not available
Specific Gravity/Density:	1.2 – 1.3
Water Solubility:	Soluble in water
pH:	Not available

Section 10: Stability and Reactivity Data

Stability:	The product is stable.
Instability Temperature:	Not available.
Conditions of Instability:	Incompatible Materials.
Incompatibility with various substances:	Reactive with oxidizing agents, acids.
Corrosivity:	Non-corrosive in presence of glass.
Special Remarks on Reactivity:	Hygroscopic. Will ignite and burn fiercely in contact with fluorine. Incompatible with acids, alum, ammonium salts, mercury + hydrogen, aluminum and magnesium.
Special Remarks on Corrosivity:	Not available
Polymerization:	Will not occur.

Section 11: Toxicological Information

RTECS#:	CAS# 1310-73-2: WB4900000 CAS# 7681-52-9: NH3486300 CAS# 7732-18-5: ZC0110000
LD50/LC50:	RTECS:
CAS# 1310-73-2:	Draize test, rabbit, eye: 400 ug Mild; Draize test, rabbit, eye: 1% Severe; Draize test, rabbit, eye: 50 ug/24H Severe; Draize test, rabbit, eye: 1 mg/24H Severe; Draize test, rabbit, skin: 500 mg/24H Severe; RTECS:
CAS# 7681-52-9:	Draize test, rabbit, eye: 10 mg Moderate; Draize test, rabbit, eye: 1.31 mg Mild; Oral, mouse: LD50 = 5800 mg/kg;
CAS# 7732-18-5:	Oral, rat: LD50 = >90 mL/kg
Carcinogenicity:	Sodium hydroxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Sodium hypochlorite - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other:	See actual entry in RTECS for complete information

Section 12: Ecological Information

No information available.

Section 13: Disposal Considerations

Product Disposal: Reuse or recycle where possible. If practicable apply excess fertiliser at recommended rates to appropriate land. Observe any local authority restrictions that may apply.

Container Disposal: Rinse containers thoroughly prior to reuse. Otherwise render unusable and dispose of as waste.

Section 14: Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION	HYPOCHLORITE SOLUTION
Hazard Class:	8	8	8
UN Number:	1791	1791	1791
Packing Group:	III	III	III

USA RQ: CAS# 1310-73-2: 1000 lb final RQ; 454 kg final RQ

USA RQ: CAS# 7681-52-9: 100 lb final RQ; 45.4 kg final RQ

Section 15: Other Regulatory Information

European/International Regulations:

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases: R 31 Contact with acids liberates toxic gas.
R 34 Causes burns.

Safety Phrases: S 28A After contact with skin, wash immediately with plenty of water.
S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S 50A Do not mix with acids.
S 61 Avoid release to the environment. Refer to special instructions/safety data sheets. WGK (Water Danger/Protection)
CAS# 1310-73-2: 1
CAS# 7681-52-9: 2
CAS# 7732-18-5: Not available

Canada:

CAS# 1310-73-2 is listed on Canada's DSL List CAS# 7681-52-9 is listed on Canada's DSL List CAS# 7732-18-5 is listed on Canada's DSL List

US Federal:

TSCA
CAS# 1310-73-2 is listed on the TSCA Inventory. CAS# 7681-52-9 is listed on the TSCA Inventory. CAS# 7732-18-5 is listed on the TSCA Inventory.

Section 16: Other Information

Other Special Considerations: Not available

Created on: 01.01.2022

Text for R-phrases from Section 2

R 35 Causes severe burns.

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