

**ORIENT PAPER MILLS – CAUSTIC SODA UNIT**  
**AMLAI , ANUPPUR, (M.P)**

**MATERIAL SAFETY DATA SHEET**



**SODIUM HYPOCHLORITE SOLUTION**

**1. IDENTIFICATION**

Trade Marks and Synonyms	Sodium hypo chlorite, sodium salt of hypochlorous acid, sodium oxychloride
Chemical Name	Sodium hypo chlorite
Physical Form	Colourless to slightly yellow liquid with chlorine- like odour
Molecular Formula	NaOCl
Manufacturer Name & Address	Orient Paper Mills- Caustic Soda Unit Telephone: 07652-286266 e-mail: <a href="mailto:csu@opil.in">csu@opil.in</a>
Responsible Person	Safety Officer;

**2. INFORMATION OF MAJOR INGREDIENTS**

Chemical Name	Sodium hypo chlorite solution
CAS No	7681-52-9
Molecular weight	74.44
Formula	NaOCl
Percent	Minimum 10 %

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### 3. HAZARD IDENTIFICATION



Main Risk	Contact with acids and ammonia
Contact with skin	Causes irritation
Contact with eyes	Severe irritation and damage
Safety Phrases	Keep out of reach of children. In case of contact with eye, wash immediately with plenty of water for 15-20 mins. Seek medical aid

### 4. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odour	Colourless to slightly yellow liquid with chlorine-like odour
pH	9-10
Specific Gravity	1.07-1.30 at 20 °C
Boiling Point	40°C
Flash Point	Not pertinent
Auto ignition	Not pertinent
Flammable Limit	Not Applicable
Vapour Pressure (mm Hg)	17.5 @ 20°C
Solubility in Water (at 30 °C)	Soluble
Solubility in Organic Solvents	Soluble in organic solvents
Oxidizing /Explosive Properties	Stable

### 5. STABILITY AND REACTIVITY

Stability	Stable
Conditions to avoid	Avoid heat, flames, sunlight
Material to avoid	Ammonia (chloramines gas may evolve), amines, ammonium salts, aziridines, methanol, phenylacetonitrile, cellulose, ethyleneimine, oxidizable metals, acids, soaps and bisulfates

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### Reactivity

Air	No Reaction
Water	Compatible
Acids	Reactive
Alkalis	No reaction
Hazardous Decomposition Products	Emits toxic fumes of chlorine when heated to decomposition. Sodium oxide at high temperatures

### 6. TOXICITY DATA

#### Routes of Entry

In contact with skin	May irritate skin
In contact with eyes	Contact may cause severe irritation and damage, especially at higher concentration.
Inhalation	May cause irritation to the respiration tract, nose and throat, symptoms may include coughing and sore throat
Ingestion	May cause nausea, vomiting
Toxicity Data	LD <sub>50</sub> (Oral, Rat): 8910 mg/ kg
Chronic Toxicity	Classified 3 (not classifiable for humans) by IARC.
Carcinogenic Toxicity	IARC Group 3
Mutagenic Toxicity	Not known
Reproductive Toxicity	Not known

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**7. FIRST AID MEASURES**



Skin Contact	Wash the affected area with plenty of water. Remove contaminated clothing. Seek medical Aid immediately
Eye Contact	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15-20 minutes. Seek medical aid immediately.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Further Medical Advice	Seek medical attention immediately.

**8. FIRE AND EXPLOSION HAZARD DATA**

Fire Extinguishing Data	Use any means suitable for extinguishing surrounding fire. Use water spray to cool fire exposed containers to dilute liquid and control vapor. Not considered to be a fire hazard. Substance releases oxygen when heated, which may increase the severity of an existing fire. Containers may rupture from pressure build-up.
Would any material saturated with this product be subject to spontaneous combustion?	No
Fire Fighting Protective Equipment	Wear full protective clothing, goggles, masks
Unusual Fire and Explosive Hazards	Not applicable

**9. PERSONAL PROTECTION**

General Precautions	Eye and skin protection should be used when Handling sodium hypo chlorite solution
Ventilation Requirements	Ventilation required
Respiratory Protection	A full-face piece respirator with an acid gas cartridge may be used while handling this material.

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Protective Clothing PVC apron, full-length rubber gloves, coveralls. Wear PVC / rubber suit. Wear rubber boots

Eye Protection Splash proof goggles or a face shield. Maintain eye wash shower and quick-drench facilities in work area.

**10. HANDLING AND STORAGE**

Handling Store in a cool, dry and well-ventilated place. Keep containers closed. Keep away from incompatibles. Use only with adequate ventilation.

Avoid contact with eyes, skin or clothing..

Storage Store in a cool, dry, well-ventilated area, away from in compatibles. Ensure containers are labeled, protected from physical damage and sealed when not in use. Check regularly for leaks or spills. Large storage areas should have appropriate ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid), observe all warnings and precautions listed for the product

**11. SPILLAGE/ACCIDENTAL RELEASE**



Spillage Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified. Isolate hazard area. Keep unnecessary personnel from entering. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth) and place in a chemical waste container. Do not use combustible materials such as saw dust! Do not flush sewer!

Personal Precautions Avoid contact with the liquid or vapours. Avoid Eyes & Skin Contact. Avoid Inhalation. Avoid Ingestion. Wear appropriate personal protective equipments.

Environmental Precautions Prevent contamination of air, water & land contamination.

**12. WASTE DISPOSAL**

Waste Disposal Dilute with water and flush to sewer if local ordinances allow, otherwise, whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with national, state and local requirements.

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**13. ENVIRONMENTAL INFORMATION**

Bio - Accumulation Not determined  
 Biodegradability Not applicable  
 Toxicity No data available

**14. REGULATORY INFORMATION**



Danger Symbol • C Corrosive

Risk Phrases  
**R23/24/25:** Toxic by inhalation, in contact with skin and if swallowed.  
**R34:** Causes burns  
**R36:** Irritating to eyes  
**R50/53:** Very toxic to aquatic organisms, may cause long term adverse effects  
**R37:** Irritating to respiratory system  
**R38:** Irritating to skin

Safety Phrases  
**S2:** Keep locked up and out of the reach of children.  
**S24/25:** Avoid contact with skin and eyes.  
**S23:** Do not breathe gas/flumes/vapour/spray.  
**S26:** In case of contact with eyes , rinse immediately with plenty of water and seek medical advice.  
**S36/37/39:** Wear suitable protective clothing, gloves and eye/face protection.  
**S45:** In case of accident or if you feel unwell, seek medical advice immediately and show the label where possible)  
**S61:** Avoid release to the environment

**15. TRANSPORT INFORMATION**

UN No. & Symbols 1791, “ Corrosive Substance Class - 8”  
 EC No: 231-668-3  
 Packing Group III  
 Hazard Class 8  
 Transport Category 2  
 Road /Rail Transport 200 LR PVC drums through tractor trolley  
 Air Transport Not Known



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## 16. OTHER INFORMATION

### Disclaimer:

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The 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 unless specified in the text.

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