

# ADITYA BIRLA CHEMICALS (INDIA) LIMITED

(RENUKOOT CHEMICAL WORKS DIVISION) P.O. RENUKOOT - 231217, SONEBHADRA, (U.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 Aditya Birla Chemicals (India) Ltd,

Dist. Sonebhadra, Renukoot

(UP) 231217, INDIA

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Responsible Person Safety Officer;

Aditya Birla Chemicals (India) Ltd, Renukoot

Dist Sonebhadra (UP) 231217, INDIA

# 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 %



### 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

ults, aziridines, methanol, phenylacetonitrile, cellulose,

ethyleneimine, oxidizable metals, acids, soaps and bisulfates



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



### 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.



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 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.



### 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 Not Known

Air Transport Not Known



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