

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: SODIUM HYPOCHLORITE SOLUTION

CAS Number: 7681-52-9

1. IDENTIFICATION:

Product Code : 90551, 90605, 90623, 93574, 93388

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:**Hazard classification****Health hazards**

Skin Corrosion : Category 1 B

Serious eye damage : Category 1

Short-term (acute) aquatic hazard : Category 2

Long-term (Chronic) aquatic hazard : Category 1

Labels elements :

Hazard symbol : 

Signal word : Danger

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

Precautionary statement

Prevention : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.

Response : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

- Storage** : Store at ambient temperature in a dry and well ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

| Ingredient | CAS Number | Percent | Hazardous |
|------------------------------|------------|-------------|-----------|
| Sodium Hypochlorite Solution | 7681-52-9 | 4.0 – 13.0% | Yes |

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
Get medical attention if symptoms persist.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.
- Swallowed** : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
- Most important symptoms/effects, acute and delayed** : The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11
- Indication of immediate medical attention and special treatment needed** : No data available.

5. FIRE FIGHTING MEASURES:

- General information** : No data available.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : dry powder.

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| Unsuitable extinguishing media | : | Avoid water in straight hose stream; will scatter and spread fire. |
| Specific hazards arising from the chemical | : | Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode. Hydrogen chloride gas, Sodium oxides |
| Special protective equipment and precautions for firefighters | | |
| Special firefighting procedures | : | Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk. |
| Special protective equipment for fire-fighters | : | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

6. ACCIDENTAL RELEASE MEASURES:

| | | |
|--|---|--|
| Personal precautions, protective equipment and emergency procedures | : | ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. |
| Methods and material for containment and cleaning up | : | Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal. |
| Notification Procedures | : | Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved. |
| Environmental precautions | : | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. |

7. HANDLING AND STORAGE:

| | | |
|---|---|--|
| Precautions for safe handling | : | Do not handle until all safety precautions have been read and understood. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation. Wash hands thoroughly after handling. |
| Conditions for safe storage, including any incompatibilities | : | Keep away from food, drink and animal feeding stuffs. Store at ambient temperature in a dry and well ventilated place. Keep the container tightly closed, away from heat. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Ground container and transfer equipment to eliminate static electric sparks. Do not store near acids. Recommended storage temperature 2 - 8 °C |

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8. EXPOSURE CONTROLS PERSONAL PROTECTION:**Control parameters****Occupational exposure limits** : No data available.**Appropriate engineering controls** : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.**Individual protection measures, such as personal protective equipment****General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.**Eye/face protection** : Wear safety glasses with side shields (or goggles).**Hand protection** : Chemical resistant gloves.**Other** : Wear suitable protective clothing.**Respiratory protection** : In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.**Hygiene measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.**9. PHYSICAL AND CHEMICAL PROPERTIES:****Appearance** : Clear colourless to pale yellow liquid**Odor** : Chlorine**Solubility** : No data available**Solubility in water** : completely miscible**Formula** : NaOCl**Molecular Weight** : 74.44 g/mol**Specific Gravity** : 1.206 g/cm³ at 25°C**pH** : 11.5 - 13.0**% Volatiles by volume @ 21C (70F)** : No data available**Boiling Point** : 111°C**Melting Point** : -28.9 °C

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Flash Point : No data available
Vapor Density (Air=1) : No data available
Vapor Pressure (mm Hg) : 23,3 hPa at 20 °C
17.5 mmHg at 20 °C
Evaporation Rate (BuAc=1) : No data available

10. STABILITY AND REACTIVITY:

Reactivity : No data available
Chemical stability : Stable under recommended storage conditions.
Possibility of hazardous reactions : Violent reactions possible with: Generates dangerous gases or fumes in contact with Acids
The generally known reaction partners of water.
Conditions to avoid : No data available
Incompatible materials : Strong acids, Organic materials, Powdered metals, Forms shock-sensitive mixtures with certain other materials., Amines, Reacts violently with ammonium salts, aziridine, methanol, and phenylaceto primary aliphatic or aromatic amines to form explosively unstable n-chlor 55°C.
Hazardous decomposition products : Hazardous decomposition products formed under fire conditions. - Hydrogen chloride gas, Sodium oxides.

11. TOXICOLOGICAL INFORMATION:

Information on likely routes of exposure

Ingestion : No data available.
Inhalation : No data available.
Skin contact : No data available.
Eye contact : No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product : LD 50 (Rat): 1.100 mg/kg
Dermal Product : LD 50 (Rabbit): male and female - > 20.000 mg/kg
Inhalation Product : No data available.
Repeated dose toxicity Product : No data available.
Skin corrosion/irritation Product : No data available.
Serious eye damage/eye irritation Product : Causes serious eye damage.

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| Respiratory or skin sensitization Product | : | Not a skin sensitizer. |
| Carcinogenicity Product | : | No data available. |
| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans | : | No data available. |
| US. National Toxicology Program (NTP) Report on Carcinogens | : | No data available. |
| US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050 Germ cell mutagenicity | : | No data available. |
| In vitro Product | : | No data available. |
| Reproductive toxicity Product | : | No data available. |
| Specific target organ toxicity - single exposure Product | : | No data available. |
| Specific target organ toxicity - repeated exposure Product | : | No data available. |
| Aspiration hazard Product | : | No data available. |
| Other effects | : | None known. |

12. ECOLOGICAL INFORMATION:**Ecotoxicity****Acute hazards to the aquatic environment**

Fish Product : LC50 - Pimephales promelas (fathead minnow) - 0,08 mg/l - 96 h

Aquatic invertebrates Product : EC50 - Daphnia magna (Water flea) - 0,04 mg/l - 48 h

Chronic hazards to the aquatic environment

Fish Product : No data available.

Aquatic invertebrates Product : No data available.

Toxicity to Aquatic Plants Product: : No data available.

Persistence and degradability

Biodegradation Product : No data available.

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BOD/COD ratio Product : No data available.**Bioaccumulative potential****Bioconcentration factor (BCF) Product** : No data available.**Partition coefficient n-octanol / water (log Kow) Product** : No data available.**Mobility in soil** : No data available.**Other adverse effects** : No data available.**13. DISPOSAL CONSIDERATION:****Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.**Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.**14. TRANSPORT INFORMATION:**

| | UN No. | UN proper shipping name | Hazard Class(es) | Packaging group | Marine Pollutant |
|-------------|---------|------------------------------|------------------|-----------------|------------------|
| DOT | UN 3082 | Sodium Hypochlorite Solution | 9 | III | No |
| IMDG | UN 3082 | Sodium Hypochlorite Solution | 9 | III | No |
| IATA | UN 3082 | Sodium Hypochlorite Solution | 9 | III | No |

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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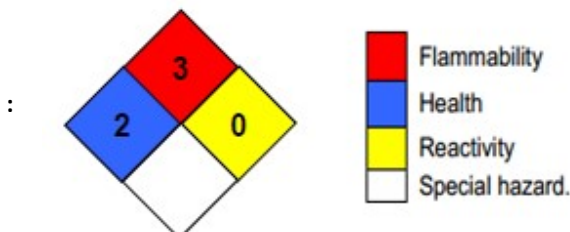
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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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