

Material Safety Data Sheet

Sodium Hypochlorite solution 10 ~15%

Section 1. Chemical Product and Company Identification

MSDS Name : Sodium Hypochlorite solution 10 ~ 15%

Synonyms : -

Company Identification:

DUKSAN PURE CHEMICALS

635-1, SUNGKOKDONG, DANWONGU, ANSANSHI, KYUNGKIDO, KOREA

Production code : 1459, 1460

Emergency Number: 82-31-495-4055

Section 2. Hazard Identification

Classification :

Skin corrosion, Category 1B

Serious eye damage, Category 1

Acute aquatic toxicity, Category 1

Hazard Symbol :



Signal Word : Danger

Hazard Statements :

H314: Causes severe skin burns and eye damage

H400: Very toxic to aquatic life

Precautionary Statements :

P273: Avoid release to the environment

P280: Wear protective gloves/protective clothing/eye protection/face protection

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P310: Immediately call a POISON CENTER or doctor/physician

Section 3. Composition, Information on Ingredients

Component	CAS Number	Concentration %
Sodium Hypochlorite	7681-52-9	10 ~ 15
Water	7732-18-5	85 ~ 90

Section 4. First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician: Treat symptomatically and supportively.

Section 5. Fire Fighting Measures

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. Substance is noncombustible.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 1

Section 6. Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. 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. Use with adequate ventilation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep

container tightly closed. Avoid ingestion and inhalation. Discard contaminated shoes.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8. Exposure Control/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

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
Sodium Hypochlorite	none listed	none listed	none listed

OSHA Vacated PELs: Water: No OSHA Vacated PELs are listed for this chemical.

Sodium hypochlorite: No OSHA Vacated PELs are listed for this chemical.

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 light yellow green

Odor: chlorine-like

pH: 11~12

Vapor Pressure: 14 mm Hg

Vapor Density: Not available.

Evaporation Rate:>1 (ether=1)

Viscosity: Not available.

Boiling Point: Decomposes.

Freezing/Melting Point:0 deg C

Decomposition Temperature:Not available.

Solubility: Soluble in water.

Specific Gravity/Density:1.1

Molecular Formula:NaOCl

Molecular Weight:74.44

Section 10. Stability and Reactivity

Chemical Stability: Sodium hypochlorite solutions decompose slowly at normal temperatures releasing low concentrations of corrosive chlorine gas. Decomposition is influenced by temperature, concentration, pH, ionic strength, exposure to light and the presence of metals.

Conditions to Avoid: Incompatible materials, light, combustible materials, heat.

Incompatibilities with Other Materials: Metals, strong reducing agents, strong acids, amines, ammonia, methanol, ammonium salts, phenylacetonitrile, formic acid.

Hazardous Decomposition Products: Hydrogen chloride, chlorine, sodium oxide.

Hazardous Polymerization: Has not been reported.

Section 11. Toxicological Information

RTECS#:

CAS# 7732-18-5: ZC0110000

CAS# 7681-52-9: NH3486300

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg;

.

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;

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Carcinogenicity:

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7681-52-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information available.

Teratogenicity: No information available.

Reproductive Effects: No information available.

Mutagenicity: No information found.

Neurotoxicity: No information found.

Other Studies:

Section 12. Ecological Information

No information available.

Section 13. Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is

classified as a hazardous waste. US EPA guidelines for the classification

determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14. Tansport Informations

	US DOT	Canada TDG
Shipping Name:	HYPOCHLORITE SOLUTIONS	No information available.
Hazard Class:	8	
UN Number:	UN1791	
Packing Group:	III	

Section 15. Regulatory Informations

US FEDERAL

TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 7681-52-9 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

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

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 7681-52-9: immediate.

Section 313 No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

CAS# 7681-52-9 is listed as a Hazardous Substance under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7681-52-9 can be found on the following state right to know lists:

California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

XI

Risk Phrases:

R 31 Contact with acids liberates toxic gas.

R 36/38 Irritating to eyes and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

S 50A Do not mix with acids.

WGK (Water Danger/Protection)

CAS# 7732-18-5: No information available.

CAS# 7681-52-9: 2

Canada - DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 7681-52-9 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of D2B.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 7681-52-9 is listed on the Canadian Ingredient Disclosure List.

Section 16. Other Informations

MSDS Creation Date: 9/28/1999

Revision #10 Date: 12/26/2013

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall DUKSAN be liable for any claims,

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