



Preparing for the New Era of Laboratories

MATERIAL SAFETY DATA SHEET (MSDS)

According to regulation (EU) no.1907/2006

SODIUM HYPOCHLORITE SOLUTION

**CONTAIN ABOUT 4-6%
AVAILABLE CHLORINE**

PRODUCT CODE : A-2015

CAS No : 7681-52-9

FORMULA : $\text{C}_6\text{H}_5\text{NH}_2$

UN No : 1791

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

SODIUM HYPOCHLORITE SOLUTION

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MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product Name** : SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE
- Synonyms** : Antiformin
- CAS No.** : 7681-52-9
- HS Code** : 2828 90 19
- Chemical Formula** : NaClO
- Molecular Weight** : 74,44 g/mol
- Product Code** : A-2015
- Brand** : Labotiq
- 1.2 Manufacturer** : Labotiq
- Address** : Jl.Terapi Raya AD2-Bumi Menteng Asri Bogor, Jawa Barat Indonesia – 16111
- Website** : www.labotiq.net
- Email** : labotiq.id@gmail.com
- For information** : Phone : (+62-251) 839110, 8311662, Fax : (+62-251) 83135710
- Emergency number** : +6281316894650
- 1.3 Application** : Laboratory chemicals, Manufacture of substances, General Chemical reagent

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation, (Category 2)	H315: Causes skin irritation.
Serious eye damage, (Category 1)	H318: Causes serious eye damage.
Short-term (acute) aquatic hazard, (Category 1)	H400: Very toxic to aquatic life.
Long-term (chronic) aquatic hazard, (Category 2) effects.	H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H315

Causes skin irritation.

H318

Causes serious eye damage.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P264

Wash skin thoroughly after handling.

P273

Avoid release to the environment.

P280

Wear protective gloves/ eye protection/ face protection.

P302 + P352

IF ON SKIN: Wash with plenty of water.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

SODIUM HYPOCHLORITE SOLUTION

CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313

If skin irritation occurs: Get medical advice/ attention.

Supplemental Hazard Statements

none

Reduced Labeling (<= 125 ml)

Pictogram



Signal Word

Danger

Hazard Statements

H318

Causes serious eye damage.

Precautionary Statements

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information:

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: SODIUM HYPOCHLORITE SOLUTION CONTAIN ABOUT 4-6% AVAILABLE CHLORINE
Formula	: NaClO
Molecular weight	: 74,44 g/mol
CAS-No.	: 7681-52-9
EC-No.	: 231-668-3
Index-No.	: 017-011-00-1

3.2 Mixture

Hazardous ingredients according to Regulation (EC) No 1272/2008

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

SODIUM HYPOCHLORITE SOLUTION

CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

Component	Classification	Concentration
sodium hypochlorite solution CAS-No. 7681-52-9 EC-No. 231-668-3 Index-No. 017-011-00-1	Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H290, H314, H318, H400, H410 Concentration limits: $\geq 5\%$; EUH031; M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	$\geq 3 - < 5\%$

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing.

Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist.

Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Chlorine

Hydrogen chloride gas

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

Sodium oxides
Hydrogen chloride gas
Sodium oxides
Not combustible.
Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No metal containers. Tightly closed. Do not store near acids

Storage stability

Recommended storage temperature
2 - 8 °C

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure control

Appropriat engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Splash contact

Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740, Size M)

Body Protection

protective clothing.

Respiratory protection

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type ABEK

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Form: liquid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezingpoint	No data available.
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	23,3 hPa at 20 °C
Vapour density	No data available
Density	1,097 g/mL at 25 °C
Relative density	No data available
Water solubility	at 20 °C soluble
Partition coefficient: noctanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Not classified as explosive.
Oxidizing properties	No data available

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Acids

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

11.1 Information on toxicological effects

Mixture

Acute toxicity

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Symptoms: Possible

symptoms:, mucosal irritations

Dermal: No data available

Skin corrosion/irritation

Remarks: Mixture causes skin irritation.

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Components

sodium hypochlorite solution

Acute toxicity

LD50 Oral - Rat - male - 1.100 mg/kg (OECD Test Guideline 401)

Inhalation: No data available

LD50 Dermal - Rabbit - male and female - > 20.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization –

Guinea pig

Result: Not a skin sensitizer. (OECD Test Guideline 406)

Germ cell mutagenicity

Result: negative Method: Mutagenicity (micronucleus test)

Species: Mouse - male

Result: negative

Carcinogenicity No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

No data available

Endocrine disrupting properties

Product: Assessment :

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

MATERIAL SAFETY DATA SHEET (SDS/MSDS)

SODIUM HYPOCHLORITE SOLUTION

CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

Components

sodium hypochlorite solution

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 0,08 mg/l - 96 h

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

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

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (ECOTOX Database)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata - 0,036 mg/l - 72 h (OECD Test Guideline 201)

static test EC10 - Pseudokirchneriella subcapitata - 0,02 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - 77,1 mg/l - 3 h (OECD Test Guideline 209) Remarks: (ECHA)

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1791

IMDG: 1791

IATA: 1791

14.2 UN proper shipping name

ADR/RID: HYPOCHLORITE SOLUTION

IMDG: HYPOCHLORITE SOLUTION

IATA: Hypochlorite solution

14.3 Transport hazard class(es)

ADR/RID: 8

IMDG: 8

IATA: 8

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user**Further information**

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

MATERIAL SAFETY DATA SHEET (SDS/MSDS)
SODIUM HYPOCHLORITE SOLUTION
CONTAIN ABOUT 4-6% AVAILABLE CHLORINE



MSDS Number : 0345

Date : October 18th, 2024

Version : 1.0

Full text of H-Statements referred to under sections 2 and 3.

EUH031 Contact with acids liberates toxic gas.
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H400 Very toxic to aquatic life.
EUH031 Contact with acids liberates toxic gas.

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 1

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Labotiq shall not be held liable for any damage resulting from handling or from contact with the above product.

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