

# SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Revision date: 30/03/2019

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

### 1.1 Product identifiers

|                       |                              |
|-----------------------|------------------------------|
| <b>Product name</b>   | Sodium hypochlorite          |
| <b>Product Number</b> | PSR40851                     |
| <b>Brand</b>          | PureSynth research chemicals |
| <b>CAS No.</b>        | 7681-52-9                    |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** : Laboratory chemicals, Manufacture of substances

### 1.3 Details of the supplier of the safety data sheet

|                |                                            |
|----------------|--------------------------------------------|
| <b>Company</b> | PureSynth Research Chemicals Pvt. Ltd.     |
|                | A-27, A.P.I.E, Hyderabad, Telangana-500037 |

### 1.4 Emergency telephone number

**Worldwide Helpline No.:** 1800-120-1234-34

## 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

Serious eye damage (Category 1), H318

Short-term (acute) aquatic hazard (Category 1), H400

Long-term (chronic) aquatic hazard (Category 2), H411

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

### 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

H340 Very toxic to aquatic life with long lasting effects

**Precautionary statement(s)**

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

|                                |                                                                                                                                     |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| P273                           | Avoid release to the environment.                                                                                                   |
| P302+P352                      | IF ON SKIN: Wash with plenty of water                                                                                               |
| P305+P351+P338                 | IF IN EYES: Rinse cautiously with water for several minutes.<br>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                                                                                                                                |

### 2.3 Other hazards:

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

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

| Common names & Synonyms | Mol. formula                                                                                                                                                                                          | CAS number    |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                         | ClNaO                                                                                                                                                                                                 | 7681-52-9     |
| Component               | Classification                                                                                                                                                                                        | Concentration |
| sodium hypochlorite     | Skin Corr. 1B; Eye Dam. 1; STOT SE 3; Aquatic Acute 1; Aquatic Chronic 1; H314, H318, H335, H400, H410<br>Concentration limits:<br>>= 5 %: , EUH031;M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1 | >= 3 - < 5 %  |

## SECTION 4: First aid measures

### Description of first aid measures

|                                                                            |                                                                                                                     |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| General advice                                                             | Consult a physician. Show this 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.                   |
| 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 |
| Indication of any immediate medical attention and special treatment needed | No data available                                                                                                   |

## SECTION 5: Fire fighting measures

|                                                              |                                                                                                                                                                  |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing media</b>                                   | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.                                                          |
| <b>Suitable extinguishing media</b>                          | Chlorine<br>Hydrogen chloride gas<br>Sodium oxides                                                                                                               |
| <b>Special hazards arising from the substance or mixture</b> | Hydrogen chloride gas<br>Sodium oxides<br>Not combustible.<br>Ambient fire may liberate hazardous vapors.                                                        |
| <b>Advice for fire-fighters</b>                              | Stay in danger area only with self-contained breathing apparatus.<br>Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing. |
| <b>Further information</b>                                   | Suppress (knock down) gases/vapors/mists with a water spray jet.<br>Prevent fire extinguishing water from contaminating surface water or the ground water system |

## SECTION 6: Accidental release measures

|                                                                            |                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection see section 8. |
| <b>Environmental precautions</b>                                           | Do not let product enter drains.                                                                                                                                                                                                                 |
| <b>Methods and materials for containment and cleaning up</b>               | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area                |
| <b>Reference to other sections</b>                                         | For disposal see section 13.                                                                                                                                                                                                                     |

## SECTION 7: Handling and storage

|                                                                     |                                                                                                                    |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| <b>Precautions for safe handling</b>                                | For precautions see section 2.2.                                                                                   |
| <b>Conditions for safe storage, including any incompatibilities</b> | Tightly closed. Recommended storage temperature<br>2 - 8 °C. Storage class (TRGS 510): 12: Non Combustible Liquids |
| <b>Specific end use(s)</b>                                          | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated                                 |

## SECTION 8: Exposure controls / Personal protection

|                                         |                   |
|-----------------------------------------|-------------------|
| <b>Control parameters</b>               | No data available |
| <b>Exposure controls</b>                |                   |
| <b>Appropriate engineering controls</b> | No data available |
| <b>Personal protective equipment:</b>   |                   |

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye / face protection</b>             | Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting Safety glasses.<br>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.                                                     |
| <b>Skin protection</b>                   | The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.<br>If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario. |
| <b>Body Protection</b>                   | Protective clothing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Respiratory protection</b>            | Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds 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.                                                                                                                                                                                                                                                        |
| <b>Control of environmental exposure</b> | Do not let product enter drains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## SECTION 9: Physical and chemical properties

|                                                       |                                           |
|-------------------------------------------------------|-------------------------------------------|
| <b>Appearance</b>                                     | Form: Liquid<br>Colour: No data available |
| <b>Odour</b>                                          | No data available                         |
| <b>pH - Value</b>                                     | No data available                         |
| <b>Density</b>                                        | 1,097 g/mL at 25 °C                       |
| <b>Boiling Point</b>                                  | No data available                         |
| <b>Melting Point</b>                                  | No data available                         |
| <b>Solubility in water</b>                            | at 20 °C soluble                          |
| <b>Flash point</b>                                    | No data available                         |
| <b>Vapour pressure</b>                                | 23,3 hPa at 20 °C                         |
| <b>Auto -ignition temperature</b>                     | No data available                         |
| <b>Vapour density</b>                                 | No data available                         |
| <b>Flammability (solid, gas)</b>                      | No data available                         |
| <b>Evaporation rate</b>                               | No data available                         |
| <b>Partition coefficient: n- octanol / water</b>      | No data available                         |
| <b>Viscosity</b>                                      | No data available                         |
| <b>Explosive properties</b>                           | No data available                         |
| <b>Upper / lower flammability or explosive limits</b> | Not classified as explosive.              |
| <b>Oxidizing properties</b>                           | No data available                         |

**Other safety information:** No data available

## SECTION 10: Stability and reactivity

|                                           |                                                                                         |
|-------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | No data available                                                                       |
| <b>Chemical stability</b>                 | The product is chemically stable under standard ambient conditions (room temperature) . |
| <b>Possibility of hazardous reactions</b> | Violent reactions possible with:<br>The generally known reaction partners of water.     |
| <b>Condition to avoid</b>                 | No data available                                                                       |
| <b>Incompatible materials</b>             | Acids                                                                                   |
| <b>Hazardous decomposition products</b>   | In the event of fire: see section 5                                                     |

## SECTION 11: Toxicological information

|                                                           |                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Acute toxicity</b>                                     | Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and Gastrointestinal tract.                                                                                                                                                                                                                                                                                                     |
| <b>Skin corrosion/irritation</b>                          | Symptoms: Possible symptoms:, mucosal irritations<br>Mixture causes skin irritation.                                                                                                                                                                                                                                                                                                                        |
| <b>Serious eye damage/eye irritation</b>                  | Mixture causes serious eye damage.                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Respiratory or skin sensitization</b>                  | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Germ cell mutagenicity</b>                             | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Carcinogenicity</b>                                    | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Reproductive toxicity</b>                              | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specific target organ toxicity - single exposure</b>   | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Specific target organ toxicity - repeated exposure</b> | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Aspiration hazard</b>                                  | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Additional Information</b>                             | No data available                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Endocrine disrupting properties</b>                    | 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.<br>Other dangerous properties cannot be excluded.<br>Handle in accordance with good industrial hygiene and safety practice |
| <b>Components: sodium hypochlorite:</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Acute toxicity</b>                                     | LD50 Oral - Rat - male - 1.100 mg/kg<br>(OECD Test Guideline 401)<br>Inhalation: No data available<br>LD50 Dermal - Rabbit - male and female - > 20.000 mg/kg<br>(OECD Test Guideline 402)                                                                                                                                                                                                                  |
| <b>Skin corrosion/irritation</b>                          | Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)                                                                                                                                                                                                                                                                                                                                 |
| <b>Serious eye damage/eye irritation</b>                  | Causes serious eye damage.<br>- Guinea pig                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Respiratory or skin sensitization</b>                  | Result: Not a skin sensitizer.<br>(OECD Test Guideline 406)<br>Result: negative                                                                                                                                                                                                                                                                                                                             |
| <b>Germ cell mutagenicity</b>                             | Method: Mutagenicity (micronucleus test)<br>Species: Mouse - male<br>Result: negative                                                                                                                                                                                                                                                                                                                       |

Specific target organ toxicity - single exposure

May cause Respiratory Hazard.

## SECTION 12: Ecological information

### Toxicity

**Persistence and degradability** No data available

**Biodegradability** No data available

**Bio accumulative potential** No data available

**Mobility in soil** No data available

**Results of PBT and vPvB assessment** This substance/mixture contains no components considered to be either persistent, bio accumulative and toxic (PBT), or very persistent and very bio accumulative (vPvB) at Levels of 0.1% or higher.

**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 adverse effects** No data available.

### Components : sodium hypochlorite:

**Toxicity to fish** LC50 - Peepholes 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)

static test ErC50 - Pseudokirchneriella subcapitata - 0,036 mg/l - 72 h

**Toxicity to algae**

(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

### Waste treatment methods Products

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleansed containers like the product itself.

### Contaminated packaging

Dispose of as unused product.

## SECTION 14: Transport information

|                  | UN no. | UN proper shipping name                                  | Hazard Class(es) | Packaging group | Marine Pollutant |
|------------------|--------|----------------------------------------------------------|------------------|-----------------|------------------|
|                  |        | ENVIRONMENTALLY HAZARDOUS                                |                  |                 |                  |
| <b>ADR / RID</b> | 3082   | SUBSTANCE, LIQUID, N.O.S. (sodium hypochlorite solution) | 9                | III             | No               |

|      |      |                                                                                                |   |     |    |
|------|------|------------------------------------------------------------------------------------------------|---|-----|----|
| IMDG | 3082 | ENVIRONMENTALLY<br>HAZARDOUS<br>SUBSTANCE, LIQUID,<br>N.O.S. (sodium<br>hypochlorite solution) | 9 | III | No |
|      |      | Environmentally<br>hazardous substance,<br>liquid, n.o.s. (sodium<br>hypochlorite<br>solution) |   |     |    |
| IATA | 3082 | ENVIRONMENTALLY<br>HAZARDOUS<br>SUBSTANCE, LIQUID,<br>N.O.S. (sodium<br>hypochlorite solution) | 9 | III | No |

## SECTION 15: Regulatory information

### 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.

#### National legislation

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous Substances.

#### Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: Other information

The information in this SDS 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. The user must be determined suitability of this information for his application.