

**AGC**

AGC Chemicals (Thailand) Co., Ltd.

# Safety Data Sheet

in accordance with globally harmonized system of classification of chemicals (GHS)

SD-QSHE-002

Rev. 00

Date: 01/07/2020

## CAUSTIC SODA MICROPEARLS 99% min.

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

<b>Product name:</b>	<b>CAUSTIC SODA MICROPEARLS 99% min.</b>
Chemical name	Sodium hydroxide 99%
Chemical formula	NaOH
CAS No.	1310-73-2
EC / List no.	215-185-5
Synonym	Caustic Soda Beads, Prill, Sodium hydroxide Solid Sodium hydroxide 99%
Recommended use of the chemicals	General Chemicals Reagent, Neutralizing agent, Personal care, Food Industry, Industrial cleaner, Drain opener, Detergent textile, Pulp and paper, Digestion, Catalyst.
<b>Manufacturing/Importer name:</b>	<b>AGC Chemicals (Thailand) Co., Ltd</b>
Address	944 Mitrtown Office Tower, 14th Floor, Rama 4 Road, Wangmai Sub-District, Pathumwan District, Bangkok 10330 Thailand
Telephone	+66-2092-6499
Fax	+66-2092-6455
Factory Address	4 Soi G-12, Pakorn Songkrohrad Road WHA Eastern Industrial Estate (Map-Ta-Phut), Tambol Map Ta Phut, Amphur Muang Rayong Rayong Province 21150 Thailand
(Rayong)	
Telephone	+66-3868-3572-5, +66-3868-5495-501
Fax	+66-3868-3576
<b>Emergency number:</b>	<b>1-800-424-9300 (CHEMTREC)</b>

### 2. HAZARDS IDENTIFICATION

#### GHS Classification of the substance or mixture:

#### PHYSICAL HAZARDS

Flammable solids	Not classified
Pyrophoric solids	Not classified
Self-heating substances and mixtures	Not classified
Substances and mixtures which in contact with water, emit flammable gases	Not classified
Oxidizing solids	Classification not possible
Corrosive to Metals	Classification not possible

#### HEALTH HAZARDS

Skin corrosion/irritation	Category 1A
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity, single exposure	Category 1 (respiratory system)

#### ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, acute hazard	Category 3
Hazardous to the aquatic environment, long-term hazard	Not classified
Hazardous to the ozone layer	Classification not possible

#### Pictogram (s):

Signal word: **DANGER**

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**Hazard statement (s):**

H314 Causes severe skin burns and eye damage  
 H318 Causes serious eye damage  
 H370 Causes damage to organs (respiratory system)  
 H402 Harmful to aquatic life

**Precautionary statement (s):**

P260 Do not breathe dust or mist.  
 P264 Wash hand thoroughly after handling.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P270 Do not eat, drink or smoke when using this product.  
 P273 Avoid release to the environment.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse SKIN with water [or shower].  
 P363 Wash contaminated clothing before reuse.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.  
 P310 Immediately call a POISON CENTER or doctor/physician.  
 P321 Specific treatment (see on this label).  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.  
 P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor.  
 P405 Store locked up.  
 P501 Dispose of contents/container to authorized companies.

**Other information:**

None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS - No	Name	% Weight
1310-73-2	Sodium hydroxide	99% min.

### 4. FIRST AID MEASURES

**Inhalation** Move victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

**Skin contact** Take off all contaminated clothing and shoes immediately. Wash plenty of water for at least 20 minutes. Get medical attention immediately.

**Eye contact** Rinse thoroughly with plenty of water for at least 20 minutes, keeping eyelids open. Get medical attention immediately.

**Ingestion** Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Most important symptoms and effects, both acute and delayed**

If inhaled: Cough. Sore throat. Burning sensation. Shortness of breath.  
 Skin contact: Redness. Serious skin burns. Blisters.  
 Eye contact: Redness. Pain. Blurred vision. Severe burns.  
 If swallowed: Abdominal pain. Burns in mouth and throat. Burning sensation in the throat and chest. Nausea. Vomiting. Shock or collapse.

**Indication of any immediate medical attention and special treatment needed:** Treat symptomatically

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Dry chemical, CO<sub>2</sub> or water spray.

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**Special hazards arising from the substance or mixture:**

Not combustible. Contact with moisture or water may generate sufficient heat to ignite combustible materials. Risk of fire and explosion on contact with incompatible substances.

Contact with metals may form Hydrogen gas which is flammable and can result in explosion

**Special protective equipment and precautions for fire-fighters:**

Wear full chemical resistant clothing with self-contained breathing apparatus (SCBA) for fire fighting. Use water spray to keep fire-exposed containers cool. Do NOT get water inside containers. Containers may explode when heated

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Avoid inhalation of dust and avoid contact with other chemicals.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

**Environmental precautions:**

Do not let this chemical enter the environment.

**Methods and materials for containment and cleaning up:**

Wear protective equipment to prevent skin and eye contact and breathing in dust.

Work up wind or increase ventilation.

Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Collect and seal in properly labelled containers or drums for disposal. Caution - heat may be evolved on contact with water.

### 7. HANDLING AND STORAGE

**Precautions for safe handling:**

Avoid skin and eye contact and breathing in dust.

Provide adequate ventilation during use.

There is a risk of splash-back causing injury if this product is added to HOT water.

Avoid causing the spread of dust from the product

**Conditions for safe storage, including any incompatibilities:**

Keep container tightly closed. Store in a cool, dry, well ventilated place and out of direct sunlight. Store away from foodstuffs and volatile materials.

**Other:**

None

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with occupational exposure limits to be monitored:**

Ingredient name: Sodium Hydroxide

**Occupational Exposure Limit (OEL)**

OSHA PEL 8-hour TWA (ST) STEL (C) Ceiling Peak		NIOSH REL Up to 10-hour TWA (ST) STEL (C) Ceiling		ACGIH TLV <sup>©</sup> 8-hour TWA (ST) STEL (C) Ceiling		Thai regulation TWA (ST) STEL (C) Ceiling	
PEL-TWA	2 mg/m <sup>3</sup>	REL-TWA	-	TLV-TWA	-	TLV-TWA	2 mg/m <sup>3</sup>
PEL-STEL	-	REL-STEL	-	TLV-STEL	-	TLV-STEL	-
PEL-C	-	REL-C	2 mg/m <sup>3</sup>	TLV-C	2 mg/m <sup>3</sup> [1992]	TLV-C	-
		IDLH	10 mg/m <sup>3</sup>				

mg/m<sup>3</sup> = milligram per cubic meter

TWA = Time-Weighted Average

PEL = Permissible Exposure Limit

STEL = Short-term Exposure Limit

REL = Recommended Exposure Limits

C = Ceiling

IDLH = Immediately Dangerous To Life or Health

Thai regulation = The announcement of the Department of Labour Protection and Welfare : Exposure limit of hazardous chemical B.E. 2560

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**Appropriate engineering controls:**

- Ensure ventilation is adequate to maintain concentrations below Exposure Standards.
- Avoid generating and breathing in dusts.
- Use with local exhaust ventilation.

**Personal protective equipment:**

- Respiratory protection: Dust mask/Respiratory protection mask
- Eye/face protection: Safety goggles or face shield
- Skin protection: Natural rubber, neoprene, nitrile
- Body Protection: Proper protective clothing

**Hygienic Practices**

- Wash contaminated clothing before reuse.
- Always wash hands before smoking, eating, drinking or using the toilet.
- Do not eat, drink, or smoke during work

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid, white
<b>Odor:</b>	Odourless
<b>Odor Threshold:</b>	No data available
<b>pH:</b>	>13 (5% solution) at 25°C
<b>Melting point/freezing point:</b>	318 °C
<b>Boiling point</b>	1388 °C
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits:</b>	Not applicable
<b>Vapor pressure:</b>	100 mmHg @ 1111 °C
<b>Vapor density (Air = 1):</b>	No data available
<b>Relative density (Water = 1):</b>	2.13 g/cm <sup>3</sup> @ 20 °C
<b>Water solubility:</b>	Very soluble (111g/100 ml) at 20°C
<b>Partition coefficient: n-octanol/water (Log K<sub>ow</sub>):</b>	No data available
<b>Auto ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>Viscosity:</b>	Not applicable
<b>Molecular mass:</b>	40 g/mol

### 10. STABILITY AND REACTIVITY

**Chemical stability:**

Stable under normal ambient handling conditions. Rapidly absorbs Carbon dioxide from the air, forming Sodium carbonate. Absorbs moisture from the air

**Reactivity:**

Reacts with Ammonium salts, evolving Ammonia gas. In the presence of moisture, the material is corrosive to Aluminium, Lead, Zinc and Tin producing highly flammable Hydrogen gas.

May react violently with acids and chlorinated hydrocarbons. Can react vigorously with water.

**Possibility of hazardous reactions:**

It reacts violently with acid and is corrosive to metals such as Aluminium, Tin, Lead and Zinc. This produces a combustible/explosive gas (Hydrogen). Reacts with Ammonium salts. This produces Ammonia.

**Conditions to avoid:**

Moisture, heat, direct sunlight.

**Incompatible materials:**

Ammonium salts, acids, Chlorinated hydrocarbons, Aluminium Zinc, Lead, Tin, and their alloys.

**Hazardous decomposition products:**

Sodium oxide

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### 11. TOXICOLOGICAL INFORMATION

**Acute toxicity:**

Oral LD50 : No data available  
 Vapor inhalation LC50 : No data available  
 Dermal LD50 : No data available

**Skin corrosion/irritation:**

Corrosive to skin.

**Serious eye damage/eye irritation:**

Risk of serious damage to eyes.

**Sensitization, respiratory :**

No data available

**Sensitization, Skin :**

No skin sensitization potential

**Germ cell mutagenicity :**

Not classified

**Carcinogenicity :**

This product is not considered to be a carcinogen by the International Agency for Research on Cancer (IARC)

**Reproductive toxicity :**

No data available

**Specific target organ toxicity, single exposure :**Based on a report that acute exposures involving inhalation of dusts or mist may cause mucous membrane irritation with subsequent cough and dyspnea and that intense exposure may result in pulmonary edema and shock (PATTY (5<sup>th</sup>, 2001))**Specific target organ toxicity, repeated exposure :**

No data available

**Aspiration hazard :**

No data available

**Symptoms related to the physical, chemical and toxicological characteristics;**

Serious local effects by all routes of exposure. A harmful concentration of airborne particles can be reached quickly when dispersed.

**Immediate effects :** The substance is corrosive to the eyes, skin and respiratory tract. Corrosive on ingestion.

**Chronic effects :** Repeated or prolonged contact with skin may cause dermatitis.

The derived no effect level (DNEL) = 1 mg/m<sup>3</sup> irritation (respiratory tract)

### 12. ECOLOGICAL INFORMATION

**Ecological toxicity**

Fish toxicity (LC50) 48h-LC50 = 40 mg/L for Crustacea (Cenodaphnia quadrangula) (SIDS, 2004).

Daphnia toxicity (EC50) No data available

**Persistence and degradability:**

No data available

**Bioaccumulative potential**

No data available

**Hazardous to the ozone layer :**

This substance is not listed in Annexes to the Montreal Protocol.

**Mobility in soil:**

No data available

**Other adverse effects:**

No data available

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Product should be taken to a suitable and authorized waste disposal site in accordance with relevant regulations and if necessary after consultation with the waste disposal operator and/or the competent Authorities

Dispose of all contained and contaminated spill residue in accordance with local regulations.

**Contaminated packaging**

Contaminated packaging material should be treated equivalent to residual chemicals. Clean packaging material should be subjected to waste management schemes (recovery, recycling, reuse) according to local legislation.

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### 14. TRANSPORT INFORMATION

**ADR:**

UN number: 1823  
Proper shipping name: SODIUM HYDROXIDE, SOLID  
Transport hazard class: 8  
Packaging group: II  
Hazard identification number: 80

**IMDG:**

UN number: 1823  
Proper shipping name: SODIUM HYDROXIDE, SOLID  
Transport hazard class: 8  
Packaging group: II  
Marine pollutant: No  
EmS: F-A, S-B

**ICAO / IATA:**

UN number: 1823  
Proper shipping name: SODIUM HYDROXIDE, SOLID  
Transport hazard class: 8  
Packaging group: II

### 15. REGULATORY INFORMATION

**Thailand Regulations****Ministry of Labor**

Notification of the Department of Labour Protection and Welfare : List of hazardous chemical B.E.2556  
- This substance is listed in the hazardous chemicals list no. 1288

**Ministry of Industry**

Notification of Ministry of Industry : List of hazardous substance B.E.2556  
- This substance is listed in the hazardous substance List 5.1 : Hazardous substance Type 1

**Ministry of Public Health**

Notification of Ministry of Public Health : Food Additives  
- Food serial number : 21-1-00942-1-0002  
- Sodium hydroxide (INS No. 524)

**Ministry of Defence**

Notification of Ministry of Defence : Determine armament that requires permission B.E.2551  
- This substance is not listed in the Armament.

**U.S.A Regulations**

TSCA CAS#1310-73-2 is listed on the TSCA inventory.

### 16. REGULATORY INFORMATION

Revised: 00  
Created: July 1, 2020

This product is not designed for any specific applications such as medical use including pharmaceutical use, etc. This Safety Data Sheet is provided only for your information, consideration and examination. AGC Chemicals (Thailand) Co., Ltd. provides no warranties, either express or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein.