# Superklene 400

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)
Issue date: 10/20/2024 Revision date: 10/19/2027 Version: 1.0

BCI
الصناعات الكيميائية الأساسية
BASIC CHEMICAL INDUSTRIES

## SECTION 1: Identification

### 1.1. GHS Product identifier

Product form : Mixture
Product name : Superklene 400

### 1.2. Other means of identification

No additional information available

### 1.3. Recommended use of the chemical and restrictions on use

Recommended use : Heavy Duty Alkali Builder

### 1.4. Supplier's details

**Supplier**
Chemical Marketing and Distribution Co. Ltd.
Dammam 31431,
P.O. Box 1053
Saudi Arabia
T +966138217777 - F +966138472648
sales@bci.com.sa

### 1.5. Emergency phone number

Emergency number : +966138217777

## SECTION 2: Hazard identification

### 2.1. Classification of the substance or mixture

**Classification according to the United Nations GHS**

| | |
|---|---|
| Corrosive to metals, Category 1 | H290 |
| Acute toxicity (oral), Category 4 | H302 |
| Acute toxicity (inhalation:dust,mist) Category 4 | H332 |
| Skin corrosion/irritation, Category 1 | H314 |

Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects : May be corrosive to metals,Harmful if inhaled,Harmful if swallowed,Causes severe skin burns and eye damage.

### 2.2. GHS Label elements, including precautionary statements

**Labelling according to the United Nations GHS**

Hazard pictograms (GHS UN) :

Signal word (GHS UN) : Danger
Hazardous ingredients : Disodium carbonate; Sodium metasilicate; Sodium metasilicate pentahydrate
Hazard statements (GHS UN) : H290 - May be corrosive to metals
H302+H332 - Harmful if swallowed or if inhaled
H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS UN) : P234 - Keep only in original packaging.
P260 - Do not breathe dusts or mists.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands and … thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or with adequate ventilation.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection/….
P301+P317 - IF SWALLOWED: Get medical help.
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P302+P361+P354 - IF ON SKIN: Take off immediately all contaminated clothing. Immediately rinse with water for several minutes.
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338 - IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P316 - Get emergency medical help immediately.
P317 - Get medical help.
P321 - Specific treatment (see … on this label).
P330 - Rinse mouth.
P363 - Wash contaminated clothing before reuse.
P390 - Absorb spillage to prevent material damage.
P405 - Store locked up.
P406 - Store in a corrosive resistant/… container with a resistant inner liner.
P501 - Dispose of contents/container to ….

### 2.3. Other hazards which do not result in classification

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to the United Nations GHS |
|---|---|---|---|
| Disodium carbonate | CAS-No.: 497-19-8 | 56.25 | Acute Tox. 5 (Oral), H303<br>Eye Irrit. 2, H319 |
| Sodium metasilicate | CAS-No.: 6834-92-0 | 18.75 | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314 |
| Sodium metasilicate pentahydrate | CAS-No.: 10213-79-3 | 18.75 | Met. Corr. 1, H290<br>Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>STOT SE 3, H335 |
| Pentasodium triphosphate | CAS-No.: 7758-29-4 | 3.13 | Acute Tox. 5 (Oral), H303<br>Skin Irrit. 2, H315<br>Eye Irrit. 2A, H319 |
| Sodium hydroxide | CAS-No.: 1310-73-2 | 3.13 | Met. Corr. 1, H290<br>Skin Corr. 1A, H314 |

Full text of H-statements: see section 16

## SECTION 4: First-aid measures

### 4.1. Description of necessary first-aid measures

First-aid measures general : Call a physician immediately. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately. Seek medical attention if ill effect or irritation develops.

First-aid measures after eye contact : Rinse immediately with plenty of water. Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Seek medical attention if ill effect or irritation develops.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Rinse mouth. Do not induce vomiting. Call a physician immediately.

### 4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released. Thermal decomposition can lead to the release of irritating gases and vapours.

### 5.3. Special protective actions for fire-fighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel.

Personal Precautions, Protective Equipment and Emergency Procedures : Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Prevention Measures for Secondary Accidents : Avoid release to the environment.

#### 6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment. Wear suitable protective clothing. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

### 6.3. Methods and materials for containment and cleaning up

For containment : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Collect spillage.

Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

Other information : Dispose of materials or solid residues at an authorized site.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Wear personal protective equipment.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Metals.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| Sodium hydroxide (1310-73-2) | |
|---|---|
| **USA - ACGIH - Occupational Exposure Limits** | |
| Local name | Sodium hydroxide |
| ACGIH OEL C | 2 mg/m³ |
| Remark (ACGIH) | TLV® Basis: URT, eye, & skin irr |
| Regulatory reference | ACGIH 2024 |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

Other information : Do not eat, drink or smoke during use.

### 8.3. Individual protection measures, such as personal protective equipment (PPE)

**Personal protective equipment:**
Wear protective gloves. Wear protective clothing. Wear foot protection. Wear a mask.

Hand protection : Impermeable protective gloves. protective gloves

Eye protection : Chemical goggles or safety glasses. Safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection. Wear suitable respiratory equipment in case of insufficient ventilation

**Personal protective equipment symbol(s)**

### 8.4. Exposure limit values for the other components

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Basic physical and chemical properties

| | | |
|---|---|---|
| Physical state | : | Solid |
| Colour | : | White to off-white. |
| Odour | : | Odourless. |
| Odour threshold | : | Not available |
| Melting point | : | Not available |
| Freezing point | : | Not applicable |
| Boiling point | : | Not available |
| Flammability | : | Not flammable |
| Lower explosion limit | : | Not applicable |
| Upper explosion limit | : | Not applicable |
| Flash point | : | Not applicable |
| Auto-ignition temperature | : | Not applicable |
| Decomposition temperature | : | Not available |
| pH | : | 12.5 (0.5% solution) |
| pH solution | : | Not available |
| Viscosity, kinematic (calculated value) (40 °C) | : | Not applicable |
| Partition coefficient n-octanol/water (Log Kow) | : | Not available |
| Vapour pressure | : | Not available |
| Vapour pressure at 50°C | : | Not available |
| Density | : | Not available |
| Relative density | : | Not available |
| Relative vapour density at 20°C | : | Not applicable |
| Solubility | : | Soluble in water. |
| Particle size | : | Not available |

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

| | | |
|---|---|---|
| Explosive limits | : | Not applicable |
| Explosive properties | : | Not explosive |
| Oxidising properties | : | Not oxidizing. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Moisture and humid conditions should be avoided; can lead to partial decomposition and release of heat.

### 10.5. Incompatible materials

Incompatible with acids, ammonium salts, and oxidizing agents; can cause violent reactions.

### 10.6. Hazardous decomposition products

May release sodium oxide, phosphorus oxides, and other hazardous fumes upon decomposition.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

| **Superklene 400** | |
|---|---|
| ATE UN (oral) | 1881.286 mg/kg bodyweight |
| ATE UN (dust,mist) | 1.2 mg/l/4h |
| Unknown acute toxicity (GHS UN)Unknown acute toxicity (GHS UN) | 3.13% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)<br>100.01% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)<br>43.76% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist)) |

| **Disodium carbonate (497-19-8)** | |
|---|---|
| LD50 oral rat | 4090 mg/kg (Source: NLM_HSDB) |
| LD50 dermal rabbit | > 2000 mg/kg (Source: ECHA) |
| LC50 Inhalation - Rat | 2300 mg/m³ (Exposure time: 2 h Source: ECHA_API) |
| LC50 Inhalation - Rat (Dust/Mist) | 1.2 mg/l Source: SIDS |

| **Sodium metasilicate (6834-92-0)** | |
|---|---|
| LD50 oral rat | 1153 mg/kg (Source: NLM_CIP) |
| LD50 dermal rat | > 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat | > 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity) |

| **Sodium metasilicate pentahydrate (10213-79-3)** | |
|---|---|
| LD50 oral rat | 847 mg/kg (Source: NLM_CIP) |
| LD50 oral | 1200 mg/kg |

| **Pentasodium triphosphate (7758-29-4)** | |
|---|---|
| LD50 oral rat | 3120 mg/kg (Source: NLM_CIP) |
| LD50 dermal rabbit | > 4640 mg/kg (Source: ECHA_API) |
| LC50 Inhalation - Rat | > 0.39 mg/l/4h |

Skin corrosion/irritation : Causes severe skin burns.
pH: 12.5 (0.5% solution)
Serious eye damage/irritation : Assumed to cause serious eye damage
pH: 12.5 (0.5% solution)
Respiratory or skin sensitization : Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

| **Sodium metasilicate (6834-92-0)** | |
|---|---|
| NOAEL (animal/female, F0/P) | > 159 mg/kg bodyweight Animal: rat, Animal sex: female |

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

| Sodium metasilicate pentahydrate (10213-79-3) | |
|---|---|
| STOT-single exposure | May cause respiratory irritation. |

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

| Sodium metasilicate (6834-92-0) | |
|---|---|
| NOAEL (oral, rat, 90 days) | 227 – 237 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents) |

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

| Superklene 400 | |
|---|---|
| Viscosity, kinematic | Not applicable |

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

| Disodium carbonate (497-19-8) | |
|---|---|
| LC50 - Fish [1] | 300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA) |
| LC50 - Fish [2] | 310 – 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA) |
| EC50 - Crustacea [1] | 265 mg/l (Exposure time: 48 h - Species: Daphnia magna) |
| EC50 96h - Algae [1] | 242 mg/l Source: ECOTOX |

| Sodium metasilicate (6834-92-0) | |
|---|---|
| LC50 - Fish [1] | 210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static] Source: IUCLID) |
| LC50 - Fish [2] | 210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio Source: IUCLID) |
| EC50 - Crustacea [1] | 1700 mg/l Test organisms (species): Daphnia magna |
| EC50 72h - Algae [1] | 207 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) |

| Sodium metasilicate pentahydrate (10213-79-3) | |
|---|---|
| LC50 - Fish [1] | 6.7 mg/l Source: SIDS |
| EC50 - Crustacea [1] | 5.8 mg/l Source: SIDS |

| Pentasodium triphosphate (7758-29-4) | |
|---|---|
| LC50 - Fish [1] | 590 mg/l Source: ECOTOX |
| EC50 - Crustacea [1] | 276.61 mg/l Source: ECOTOX |

| Sodium hydroxide (1310-73-2) | |
|---|---|
| LC50 - Fish [1] | 45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: IUCLID) |
| EC50 - Crustacea [1] | 40.4 mg/l Test organisms (species): Ceriodaphnia sp. |
| EC50 - Other aquatic organisms [1] | > 33 mg/l waterflea |

### 12.2. Persistence and degradability

| Superklene 400 | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| Disodium carbonate (497-19-8) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| Sodium metasilicate (6834-92-0) | |
|---|---|
| Persistence and degradability | Rapidly degradable |

| Sodium metasilicate pentahydrate (10213-79-3) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| Pentasodium triphosphate (7758-29-4) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

| Sodium hydroxide (1310-73-2) | |
|---|---|
| Persistence and degradability | Not rapidly degradable |

### 12.3. Bioaccumulative potential

| Superklene 400 | |
|---|---|
| Bioaccumulative potential | No additional information available |

| Disodium carbonate (497-19-8) | |
|---|---|
| BCF - Fish [1] | (no bioaccumulation) |
| Partition coefficient n-octanol/water (Log Pow) | -6.19 Source: Quantitative Structure Activity Relation |

| Sodium metasilicate (6834-92-0) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -5.65 |

| Pentasodium triphosphate (7758-29-4) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -2.71 Source: Ecological Structure Activity Relationships |

| Sodium hydroxide (1310-73-2) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -3.88 |

### 12.4. Mobility in soil

| Superklene 400 | |
|---|---|
| Mobility in soil | No additional information available |

### 12.5. Other adverse effects

Ozone : Not classified (Based on available data, the classification criteria are not met)
Other adverse effects : No additional information available
Effect on the ozone layer : No additional information available.
Other information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations.
Ecological waste information : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA /

| UN RTDG | IMDG | IATA |
|---|---|---|
| **14.1. UN number** | | |
| Not regulated for transport | | |
| **14.2. UN Proper Shipping Name** | | |
| Not regulated | Not regulated | Not regulated |
| **14.3. Transport hazard class(es)** | | |
| Not regulated | Not regulated | Not regulated |
| **14.4. Packing group** | | |
| Not regulated | Not regulated | Not regulated |
| **14.5. Environmental hazards** | | |
| Not regulated | Not regulated | Not regulated |
| No supplementary information available | | |

### 14.6. Special precautions for user

**UN RTDG**
Not regulated

**IMDG**
Not regulated

**IATA**
Not regulated

### 14.7. Transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations specific for the product in question

No additional information available

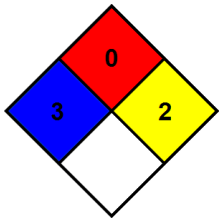
## SECTION 16: Other information

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 2 - Materials that readily undergo violent chemical change at elevated temperatures and pressures.

NFPA specific hazard : None




Hazard Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 2 Moderate Hazard - Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.

Issue date : 10/20/2024

Revision date : 10/19/2027

Other information : None.

| Full text of H-statements: | |
|---|---|
| Acute Tox. 5 (Oral) | Acute toxicity (oral), Category 5 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Eye Irrit. 2A | Serious eye damage/eye irritation, Category 2A |
| Skin Corr. 1A | Skin corrosion/irritation, Category 1A |
| Skin Corr. 1B | Skin corrosion/irritation, Category 1B |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |
| H290 | May be corrosive to metals |
| H302 | Harmful if swallowed |
| H303 | May be harmful if swallowed |
| H314 | Causes severe skin burns and eye damage |
| H315 | Causes skin irritation |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H335 | May cause respiratory irritation |

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.