

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Identification of the Substance

Product Code : ACT 100

Product Name : Alkaline Controller
Product Family : Water Treatment

Product Description : An aqueous solution of sodium hydroxide.

Supplier : Goldcrest International Singapore Pte Ltd
38 Tech Park Crescent
Singapore 638098
Tel: (65) 6862 6006
Fax: (65) 6863 3665
Email: sales@goldcrest.com.sg

SECTION 2 – HAZARDS IDENTIFICATION

GHS Classification of the substance or mixture

Skin corrosion (Category 1)
Serious eye damage (Category 1)

GHS Label Elements, including precautionary statements

Pictograms :



Signal word : Danger

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

Hazard statements

H314: Causes severe skin burns and eye damage.

GHS Precautionary Statements:**Prevention**

P264: Wash skin thoroughly after handling.

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

Response

P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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.

P363: Wash contaminated clothing before reuse.

Storage:

P405: Store locked up.

Disposal:

P501: Dispose of contents/container to appropriate waste treatment contractor in accordance with local and national regulations.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	CONCENTRATION %	GHS Hazard Category
Sodium hydroxide	1310-73-2	35 - 45	Skin corr. 1; eye damage 1

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

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Remove contaminated clothing, flush affected area with large amounts of water, then use soap and large amounts of water. Consult a physician.

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

In case of eye contact

Immediately flush eyes with large amounts of water occasionally lifting upper and lower lids for at least 15 minutes. Get immediate medical attention.

If swallowed

Rinse mouth with water. DO NOT INDUCE VOMITING unless instructed to by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Most important symptoms and effects, both acute and delayed

The symptoms are burning sensation, cough, wheezing and laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, and pulmonary edema. This material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

SECTION 5 – FIRE-FIGHTING MEASURES

This product is not flammable as it is water based.

Extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special Protective Equipment for Firefighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Avoid inhalation of vapor or mist.

Conditions for safe storage

Store this product in a cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Keep containers tightly closed in a well-ventilated place. Keep away from acids. Protect against physical damage. Store locked up.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure Limits

Component	CAS-No	Value	Control parameters	Basis
Sodium hydroxide	1310-73-2	PEL (short term)	2 mg/m ³	Singapore Workplace safety and Health Act – First Schedule Permissible Exposure Limits of Toxic Substances

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Use tightly fitting goggles. Face shield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards.

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove remove 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.

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

Body protection

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid at ambient temperature
Color	: Clear colorless
Odor	: Nil
Odor	: Faint odor
Boiling point	: ~ 140°C
Flash point (PMCC)	: Non flammable
Specific Gravity	: 1.39 – 1.44
Solubility in water (% by weight)	: 100% soluble
pH value at 25°C	: 13 – 14
% volatiles	: ~ 60 wt. % (water)

SECTION 10 – STABILITY AND REACTIVITY

Stability:

The product is stable under normal conditions of use and storage.

Conditions to avoid:

Keep away from heat, strong oxidizing agents and acids.

Incompatible materials

Acids, organic materials, chlorinated solvents, aluminum, phosphorus, tin/tin oxides and zinc.

Hazardous combustion products:

None

Polymerization:

Will not occur.

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity data

Based on hazardous component:

Sodium hydroxide

Severe eye irritant

Rabbit 24 hours 50 micrograms

Skin – Severe irritant

Rabbit 24 hours 500 milligrams

Information on the likely routes of exposure:

The anticipated routes of entry are oral, dermal and inhalation.

Potential acute health effects

Inhalation: Corrosive to the respiratory tract and will Cause burns.**Ingestion:** May cause burns to mouth, throat and stomach.**Skin contact:** Causes severe burns.**Eye contact:** Causes serious eye damage.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity

Based on hazardous component: Sodium hydroxide

Fish toxicity: 240 µg/L 96 hours LC50 (Mortality) Bluegill (*Lepomis macrochirus*)**Invertebrate toxicity:** 330000 – 1000000 µg/L 48 hours LC50 (Mortality) Cockle (*Cerastoderma edule*)**Algal toxicity:** 765 µg/L 30 days (Biomass) Algae, phytoplankton, algal mat (Algae)**Phyto toxicity:** 230 µg/L 21 weeks (Biomass) Waterweed (*Elodea Canadensis*)

Fate and transport:

Bio concentration:

1066 µg/L 32 hours BCF (Residue) Fathead minnow (*Pimephales promelas*) 3.1 µg/L**Environmental summary:** Highly toxic to aquatic life.

SECTION - 13 DISPOSAL CONSIDERATIONS

Methods of disposal

Surplus or non-recyclable material should be disposed through a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SAFETY DATA SHEET

DATE OF ISSUE: May 22, 2022

SECTION 14 - TRANSPORT INFORMATION

Transport Classification:

Land Transport ADR/RID

Hazard Class 8
UN number : UN 1824
Packing Group II
Proper Shipping Name : SODIUM HYDROXIDE SOLUTION

Sea Transport (IMDG)

Hazard Class 8
UN Number : UN 1824
Packing Group II
Proper Shipping Name : SODIUM HYDROXIDE SOLUTION

Air Transport (ICAO/IATA)

Hazard Class 8
UN Number : UN 1824
Packing Group II
Proper Shipping Name : SODIUM HYDROXIDE SOLUTION

SECTION 15 – REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture**
1. Sodium hydroxide solution

Notification status

On the inventory, or in compliance with the inventory of the following:
AICS, DSL, ENCS, IECS, ISHL, KECL, NZIoC, PICCS.

SECTION 16 - OTHER INFORMATION

The information contained herein relates only to the specific material identified. This information is accurate and reliable on the date of this safety data sheet, but no warranty or representation is made as to the accuracy, reliability or completeness of information. It is offered solely for your consideration, investigation and verification. Before using this product, read all information provided.