

SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

Product name : KURITA KF-0220
Usage : Ultrawater system-slime inhibitor
Supplier : KURITA (TAIWAN) CO., LTD.
Supplier's address : No. 260, Yulin Road, Chiautou Dist Kaohsiung 82544, Taiwan (R.O.C.)
Supplier's phone : +886-7-611-3340 **FAX-NO. :** +886-7-612-8573
Department for information : Environmental Safety Section
Emergency contact phone : (08:30AM~17:30PM; Moday~Friday)
Telephone : +886-7-611-3340 **FAX-NO. :** +886-7-612-8573

2. Hazard(s) identification

GHS Classification :

Acute oral toxicity Cat. 4
 Skin Corrosion/Irritation Cat. 1B
 Serious Eye Damage/Eye Irritation Cat. 1
 Target Organ Systemic Toxicity – Repeated Exposure Cat. 2
 Acute dermal toxicity Cat. 5

Signal Word : Danger



Symbol : Corrosion · Health hazard · Exclamation

Hazard statements :

1. Harmful if swallowed.
2. Causes severe skin burns and eye damage.
3. Causes serious eye damage.
4. May cause damage to organs through prolonged or repeated exposure.
5. May be harmful in contact with skin.

Precautionary statement :

1. Get medical advice/attention if you feel unwell.
2. Wear eye protection/face protection.
3. Avoid release to the environment.
4. IF IN EYES: Wash with plenty water.
5. Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
6. Store in a well-ventilated place.

3. Composition/information on ingredients

Substance :

Ingredients name	Synonym	CAS No.	Proportion range %
N/A	N/A	N/A	N/A

Mixture:<The other component is water.>

Ingredients name	CAS No.	Proportion range %
------------------	---------	--------------------

SAFETY DATA SHEET

Sodium Hydroxide	1310-73-2	0~25%
Sodium Chloride	7647-14-5	0~25%
Sodium Bromide	7647-15-6	0~25%

4. First-aid measures

4.1 Inhalation :

1. Symptoms may be delayed. 2. Avoid the patient unnecessary movements. 3. Do your own protective measures before rescue to ensure your own safety. 4. Seek medical attention immediately. 5. If Difficulty breathing, it is best to provide oxygen to the trained person under the direction of the doctor. 6. Remove the source of pollution or move the patient to fresh air.

4.2 Skin Contact :

1. Not interrupt the flushing. 2. Go to the doctor. 3. The contaminated clothing, shoes and leather accessories (such as straps and belts) must be completely decontaminated before use or disposal. 4. Take off contaminated clothing, shoes and leather accessories (such as straps and belts). 5. Wear suitable gloves. 6. Avoid personal contact, including inhalation. 7. If your Irritation persists and seeks medical attention. 8. That means gently absorbing or brushing off excess chemicals. 9. Rinse the contaminated area gently with warm water for 20-30 minutes.

4.3 Eye Contact :

1. Not interrupt the flushing. 2. Go to the doctor. 3. Be careful when rinsing, not allow contaminated rinsing water into uncontaminated eyes. 4. Wear suitable gloves. 5. Avoid personal contact, including inhalation. 6. If your Irritation persists and seeks medical attention. 7. That means gently absorbing or brushing off excess chemicals. 8. If possible, use Physiological saline to rinse. 9. Rinse the contaminated area gently with warm water for 20-30 minutes.

4.4 Ingestion :

1. Avoid gastric lavage or vomiting. 2. Spontaneous vomiting, let the body lean forward to avoid inhaling vomit. 3. The patient has lost consciousness or cramps, do not give any food by mouth. 4. Seek medical attention immediately. 5. Rinse your mouth thoroughly with clean water.

First Aid Facilities:

The Most Important Symptoms and Hazardous Effects :

1. Severely burns eyes or skin and causes permanent injury. 2. Burning sensation. 3. Irritation. 4. Difficulty / shortness of breath. 5. Severe exposed. Possible pulmonary edema may occur after hours, making breathing difficult or fatal.

Protection of First-aiders :

1. C-level protective equipment should be worn to perform first aid in a safe area. 2. Wear protective clothing when there is exposed hazard.

Notes to a Physician :

1. Avoid gastric lavage or vomiting. 2. When inhaling, consider giving oxygen. 3. If Difficulty breathing, it is best to provide oxygen to the trained person under the direction of a doctor.

5. Fire-fighting measures

Applicable fire extinguishing agents :

SAFETY DATA SHEET

1. In case of fire, it is recommended to use foam or water spray to extinguish the fire. 2. Choose the appropriate extinguishing agent for the surrounding fire.

Special hazard possibly suffered in fire extinguishing :

1. Mixed with acid, may generate heat and ignite or explode. 2. It can promote combustion when it is mixed with combustible materials. 3. Poisonous gas may be released in the fire.

Special extinguishing procedure :

-

Firemen's special protective equipment :

-

6. Accidental release measures

Personal cautions :

1. Wear appropriate protective clothing 2. Make sure that the cleaning is carried out by trained personnel. 3. Personnel without special protective equipment can't enter. 4. Avoid personnel contact, including inhalation.

Environmental cautions :

1. Report to government occupational safety and health and environmental protection related units. 2. Use local exhaust. 3. Removal of chemicals that react with exudates. 4. Remove combustible substances and ignition sources. 5. To avoid leakage of substances into the sewer or confined space, it must be treated until it meets environmental standards before it can be released.

Cleaning method :

1. Cover with soda ash, spray with water 弄 wet, and then concentrate with waste 理. 2. Rinse the leakage area with water. 3. Do not allow water to enter the container. 4. To avoid leakage of substances into the sewer or confined space, it must be treated until it meets environmental standards before it can be released.

> A small amount of leakage:

1. Neutralization the remaining partical, clean the leakaged area with water. 2. Contain the external leakage, shovel into a clean, dry, covered container; and mark it. Move the container to a safe area far away from the discharge area. 3. Adsorb with sand or other flammable substances, and place the adsorbed substances in appropriate containers for disposal. 4. To avoid leakage of substances into the sewer or confined space, it must be treated until it meets environmental standards before it can be released.

> A large amount of leakage:

Contact the Fire and Emergency Department, units and suppliers for assistance.


7. Handling and Storage

Handling :

SAFETY DATA SHEET

1. Overflow or ventilation should be reported upwards. 2. With this substance released, escape for the area immediately. 3. There is emergency equipment such as fire, overflow, etc. available immediately. 4. This substance requires engineering control and protective equipment. Staff should be properly trained and informed of the dangers and safe use of this substance. 5. Far flammable substances. 6. Check whether the container overflows or is damaged before operation. 7. Avoid fog droplets and prevent them from entering the air in the work area. 8. Hold the minimum usage in a specific ventilation area. 9. Mark and post warnings. 10. Eating, drinking and smoking are prohibited. 11. Use local exhaust. 12. Wear suitable gloves 13. Wear appropriate protective clothing. 14. Those who are not wearing protective equipment should not touch this object or contaminated equipment. 15. Avoid personnel contact,

Storage :

1. The floor should be not permeable and not cracked. 2. Store in the original marked container or the storage container recommended by the manufacturer / supplier. 3. Tightly cover the container 4. The container should be marked. 5. Periodically check the container for spillage or damage. 6. Only allow appointed or trained persons to enter the area. 7. Mark and post warnings. 8. Limit  storage. 9. Far flammable substances. 10. Refuse Compatible substances and food containers. 11. Empty barrels should also be marked and stored separately from the actual product. It is strictly forbidden to use empty barrels to hold drinking water. 12. The storage area is separated from the work area. 13. Store in a cool, dry, well-ventilated place with good direct sunlight and direct sunlight. 14. Avoid personnel contact, including inhalation.

8. Exposure controls/personal protection

Engineering control:

1. Use a corrosion-resistant ventilation system alone. 2. Use local exhaust.

Component name	TWA	STEL	CEILING	BEIs
-	-	-	-	-

Personal protective equipment:

Choice suitable personal protective equipment in below.

Respiratory protection :

For recurrent exposure : Use approved canister respiratory protection.

Hand protection :

1. Chemical protective gloves. 2. Chemical protective gloves, the material can choose butyl rubber.

Eye protection :

1. Provide emergency eye cleaning device or quick shower device, etc. 2. Face shield. 3. Chemical safety glasses.

Skin and body protection :

1. Provide emergency eye cleaning device or quick shower device, etc. 2. Work shoes. 3. Chemical protective clothing.

Sanitary measures :

1. Mark and post warnings. 2. Eating, drinking and smoking are prohibited. 3. Take off the contaminated clothing as soon as possible after work, wash it before putting it on again or throw it away, and inform the laundry staff of the danger of contamination 4. Keep the workplace clean 5. After you treat it, wash hands thoroughly.

SAFETY DATA SHEET

9. Physical and chemical properties

- a. Appearance(Physical State, Colour) : Light yellow ~ brown liquid
 - b. Olfactory threshold : About 21 ppm
 - c. pH : ≥ 13.0
 - d. Flammability (solid, gas) : No data available.
 - e. Decomposition temperature : -
 - f. Auto-ignition temperature : -
 - g. Vapor pressure : -
 - h. Relative density : 1.20~1.40
 - i. Partition coefficient ;n-octanol/water (log Kow) : -
 - j. Odour : Choking smell
 - k. Melting point/freezing point : -
 - l. Initial boiling point and boiling range : -
 - m. Flash Point : Not applicable.
 - n. Test method : -
 - o. Upper/lower flammability or explosive limits: -
 - p. Vapor density : -
 - q. Solubility(ies) : Miscible with water
 - r. Evaporation Rate: -
-

10. Stability and reactivity

Chemical stability :

Stable under normal temperature and pressure.

Possibility of hazardous reactions :

Zinc, tin, most of the genus, propylene, can be extinguished with water mist, peroxides,

Conditions to avoid :

It can be extinguished by water mist, acid, heat and air.

Incompatible materials:

Nitroalkanes, nitroaromatics, thorium, nitrogen, chlorine organic compounds, organic halides,

Hazardous decomposition products :

halogen.

11. Toxicological information

Information on the likely routes of exposure :

Skin, inhalation, ingestion, eyes

Symptoms related to physical :

1. Weakness / convulsion 2. Pumping / spasticity 3. Burns 4. Redness 5. Ulcers / Mice 爛 6. Blindness 7. Vomiting 8. Diarrhea 9. Nausea 10. Sense of sensation 11. Irritation 12. Difficulty / shortness of breath 13. Pulmonary edema / water accumulation 14. Chest pain 15. Dry

Chemical and toxicological characteristics :

SAFETY DATA SHEET

Skin: 1. May cause severe skin irritation resulting in irritability, ulcers / healing, blistering, discoloration, burns, health hazards, permanent damage, damage 2. Apply a 0.12% hazardous ingredient solution to healthy skin within 1 hour Damaged. Inhalation: 1. Hazard 1

Chronic effects from short and long term exposure :

1. It will affect the skin and cause inflammation. 2. It may seriously affect the esophagus /

LD50(Zoopery · Absorption pathway) : 400mg / kg (rat, swallowed)

LD50(Zoopery · Absorption pathway) : 2330mg / kg (rabbit, skin)

12. Ecological information

Toxicity :

LC50 : > 320mg / kg / 24hrs (fish)

EC50 : No data available.

Persistence and degradability :

No data available.

Bioaccumulative potential :

No data available.

Bioconcentration factor(BCF) : No data available.

Mobility in soil :

No data available.

Other adverse effects :

No data available.

13. Disposal consideration

Disposal methods :

1. Dispose as per current regulations; 2. Store wastes to be disposed as per warehousing conditions; 3. may dispose by sanitary burying.

14. Transport information

UN No. : 3266

UN proper Shipping Name : Corrosive liquid, basic, inorganic, nos

Transport hazard class(es) : 8

Packaging group : III

Environmental hazards : no

Special precautions for user : -

15. Regulatory information

Applicable regulations:

SAFETY DATA SHEET

1.Occupational Safety and Health Act2.Rules for occupational safety and health facilities3.Hazardous Chemical Labelling and General Knowledge Rules 4.ulation Name :Measures for the assessment and grading management of hazardous chemicals 5.Regulations Governing Designating and Handling of Priority Management Chemicals6.Road Traffic Safety Rules7.Methods and Facilities Standards for the Storage, Clearance and Disposal of Industrial Waste 8.Regulations of New and Existing Chemical Substances Registration

16. Other information

References :

1 Department of Labor GHS SDS 2 raw material suppliers database SDS 3.KWI SDS

Prepared by :

Company name : KURITA (TAIWAN) Co., Ltd.

Address/Telephone : No. 260, Yulin Road, Chiautou Dist Kaohsiung 82544, TAIWAN
+886-7-611-3340

Prepared by (person)Title : Head of Environmental Safety Section

Name (signature) : Bill Lee

Preparation date : 2023/5/29