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

1.1 Product identifier

Product name	KH Liquid
Product number	KHL-0500, KHL-1000, KHL-5000
Brand	ReefX®

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

For adjusting and maintaining alkalinity levels in aquaria.

1.3 Details of the supplier of the safety data sheet

Name	Live Reef Ltd
Address	8-9 Mountbatten Road EX16 6SW Tiverton Devon UK
Telephone	+44 (0)800 8620270
email	info@livereef.uk

1.4 Emergency telephone number

Live Reef Distribution Ltd
+44 (0)800 8620270

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

- Serious eye damage/eye irritation (chapter 3.3), Cat. 2, H319

For the full text corresponding to the "H"-codes displayed in this section, refer to Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard pictograms

Signal word	**Warning**
Hazard statement(s)	
H319	Causes serious eye irritation

Precautionary statement(s)

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

SECTION 3: Composition/information on ingredients

3.1 Substances

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Components

1. Sodium carbonate

Concentration	10 - 22 % (weight)
Other names / synonyms	Carbonic acid sodium salt (1:2); Crystal carbonate; Disodium carbonate; Natrii carbonas; Sal soda; Soda ash; Soda, calcined; Washing soda
EC no.	207-838-8
CAS no.	497-19-8
Index no.	011-005-00-2

2. Potassium carbonate

Concentration	2 - 5 % (weight)
Other names / synonyms	Carbonic acid, potassium salt (1:2);
EC no.	209-529-3
CAS no.	584-08-7

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation	Move exposed individual to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Seek medical advice if discomfort or irritation persists.
Following skin contact	Take off contaminated clothing immediately. Wash off with soap and plenty of water. Seek medical advice if discomfort or irritation persists.
Following eye contact	In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Seek medical advice if irritation or discomfort persists, or if concerned.
Following ingestion	Rinse mouth thoroughly. Do not induce vomiting.

Do not induce vomiting. If victim is conscious, wash mouth thoroughly with plenty of water.
Seek medical advice if irritation, discomfort or vomiting persists.

4.2 Most important symptoms and effects, both acute and delayed
Irritation, Nausea.

4.3 Indication of any immediate medical attention and special treatment needed
Not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Use extinguishing media suitable to the surroundings such as, dry chemical powder, chemical foam, water spray and carbon dioxide.

5.2 Special hazards arising from the substance or mixture
The preparation is water based and not combustible or explosive.
When heated sufficiently, product may decompose to form smoke and toxic fumes, gases or vapours that may cause dizziness.
Toxic fumes such as carbon, sodium and potassium oxides may be evolved on thermal decomposition.

5.3 Advice for firefighters
Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment.
Avoid inhalation of vapors, mist or gas.
Ensure adequate ventilation.
Ventilate area of spill.

6.2 Environmental precautions
Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up
Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid contact with skin and eyes.
Avoid inhalation of vapors, mist or gas.
Wash thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Workers should wash hands and face before eating, drinking and smoking.
Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Avoid large temperature changes and store in a cool, dry, well ventilated environment and away from direct sunlight.
Keep containers closed when not in use.
Keep away from strong acids and strong oxidizing compounds.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits.
If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal protection equipment

Pictograms

Eye and face protection

Wear protective safety glasses.

Skin protection

Wear protective gloves to prevent skin exposure.

Body protection

Wear appropriate long-sleeved clothing to minimize skin contact.
During normal non-professional use of the preparation no personal protective equipment is required.
However, in case of manufacture or spillage, use as appropriate to the size of the spill.

Respiratory protection

Normal use: none.
If user operations generate dust, fume or mist: wear mask or respirator with filter type P2.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Clear liquid
Odour	None
Odour threshold	No data available
pH	8.4
Melting point / freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	Non flammable
Upper/lower flammability limits	Non flammable
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Solubilit(ies)	Soluble in water
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	Non flammable
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	Non explosive
Oxidising properties	Non oxidising

SECTION 10: Stability and reactivity

10.1 Reactivity
Reacts with acids, evolving carbon dioxide (CO2).

10.2 Chemical stability
The product is stable under normal handling and storage conditions.

10.3 Possibility of hazardous reactions
Hazardous reactions are not expected, under normal conditions of storage and use.

10.4 Conditions to avoid
Long term exposure to heat and direct sunlight.

10.5 Incompatible materials
Strong acids, strong oxidizing compounds.

10.6 Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
Sodium carbonate, LD50, Rat, > 4000 mg/kg bw (oral)
Sodium carbonate, LC50, Rat, > 2300 mg/m3/2H (inhalation)
Potassium carbonate, LD50, Rat, > 1870 mg/kg bw (oral)

Skin corrosion/irritation
Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008.

Serious eye damage/irritation
Not classified according to EU Directive 67/548/EEC and CLP Regulation (EC) No. 1272/2008.

Respiratory or skin sensitization
Considered not to have any sensitising properties, based on the physiological properties of both its constituent ions and the lack of any reported issues.

Germ cell mutagenicity
All test results have proven negative.
Is considered not to be genotoxic.

Carcinogenicity
No evidence of carcinogenic effects.

Reproductive toxicity
No data on reproduction toxicity available.
However, based on the normal physiological role of compound ions, no toxicity on mammalian or human reproduction is expected.

STOT-single exposure
No data available.

STOT-repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
May cause irritation to skin in certain individuals, while inhalation of spray or mist could irritate the respiratory system and ingestion may irritation of the linings of the mouth, throat and gastro-intestinal tract.

SECTION 12: Ecological information

12.1 Toxicity
No data available.

12.2 Persistence and degradability
Compounds present in the preparation would be readily bio-degradable in the environment.

12.3 Bioaccumulative potential
Not applicable.

12.4 Mobility in soil
Though there is no specific information on the mobility of compounds in the preparation, they are soluble under normal environmental conditions in water so would also be expected to be highly mobile in soil.

12.5 Results of PBT and vPvB assessment
Not applicable.

12.6 Other adverse effects
No other adverse effects are identified.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment
If recycling spilled product is not practicable, dispose of in compliance with local or national regulations.
• Dissolve in water and neutralise with an acid, under controlled conditions.
• Do not dispose of directly with acids.

Packaging:
• Where possible, recycling is preferred to disposal or incineration.
• Clean container with water, dispose of rinse water in accordance with local or national regulations.

SECTION 14: Transport information

14.1	UN Number	None
14.2	UN Proper Shipping Name	None
14.3	Transport hazard class(es)	None
14.4	Packing group	None
14.5	Environmental hazards	None
14.6	Special precautions for user	None
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	None

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Massachusetts Right To Know Components
No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components
Sodium carbonate
CAS-No.: 497-19-8

Pennsylvania Right To Know Components
Sodium carbonate
CAS-No.: 497-19-8

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards
Acute Health Hazard

SARA 313 Components
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

TSCA Inventory
All components are listed

Water hazard class
WGK1, VwVwS (Germany)

15.2 Chemical Safety Assessment
Yes.

HMIS Rating

KH Liquid	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

NFPA Rating

SECTION 16: Other information

Full text of hazard statements referenced in Section 2

H319	Causes serious eye irritation

Further information/disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.