Calcium Test Solution #1

Mars Fishcare North America, Inc.

Chemwatch: **4650-7** Version No: **5.1.1.1**

Safety Data Sheet according to OSHA HazCom Standard (2012) requirements

Chemwatch Hazard Alert Code: 4

Issue Date: **06/27/2017**Print Date: **10/23/2018**S.GHS.USA.EN

SECTION 1 IDENTIFICATION

Product Identifier

Product name	Calcium Test Solution #1
Synonyms	Solution ID# 3336
Proper shipping name	Sodium hydroxide solution
Other means of identification	Not Available

Recommended use of the chemical and restrictions on use

Relevant identified uses

Calcium test solution for product 69L.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Registered company name	Mars Fishcare North America, Inc.
Address	50 E. Hamilton Street United States
Telephone	215 822 8181
Fax	215 997 1290
Website	Not Available
Email	Not Available

Emergency phone number

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not Available

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

NFPA 704 diamond



Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

Classification

Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1A, Serious Eye Damage Category 1

Label elements

Hazard pictogram(s)



SIGNAL WORD

DANGER

Hazard statement(s)

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P234	Keep only in original container.	

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338	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.
P390	Absorb spillage to prevent material damage.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Precautionary statement(s) Storage

P405 Store locked up.

Precautionary statement(s) Disposal

P501

Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
1310-73-2	<10	sodium hydroxide

SECTION 4 FIRST-AID MEASURES

Description of first aid measures

Description of first aid r	neasures
Eye Contact	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin or hair contact occurs: Immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	 For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.

Most important symptoms and effects, both acute and delayed

See Section 11

Indication of any immediate medical attention and special treatment needed

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- ▶ The presence of shock suggests perforation and mandates an intravenous line and fluid administration.
- Damage due to alkaline corrosives occurs by liquefaction necrosis whereby the saponification of fats and solubilisation of proteins allow deep penetration into the tissue.

Alkalis continue to cause damage after exposure.

INGESTION:

Milk and water are the preferred diluents

No more than 2 glasses of water should be given to an adult.

- Neutralising agents should never be given since exothermic heat reaction may compound injury.
- * Catharsis and emesis are absolutely contra-indicated.
- * Activated charcoal does not absorb alkali.
- * Gastric lavage should not be used.

Supportive care involves the following:

- Withhold oral feedings initially.
- ▶ If endoscopy confirms transmucosal injury start steroids only within the first 48 hours.
- ▶ Carefully evaluate the amount of tissue necrosis before assessing the need for surgical intervention.
- Patients should be instructed to seek medical attention whenever they develop difficulty in swallowing (dysphagia).

SKIN AND EYE:

▶ Injury should be irrigated for 20-30 minutes.

Eye injuries require saline. [Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media

- Water spray or fog.
- Foam.
- ▶ Dry chemical powder.

Special hazards arising from the substrate or mixture

Fire Incompatibility None known.

Special protective equipment and precautions for fire-fighters

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course.
Fire/Explosion Hazard	 Non combustible. Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: sulfur oxides (SOx) May emit corrosive fumes.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling

Other information

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- ▶ Use in a well-ventilated area.
- ▶ DO NOT allow clothing wet with material to stay in contact with skin
- Store in original containers.
- ► Keep containers securely sealed.
- ▶ Store in a cool, dry, well-ventilated area.
- ► DO NOT store near acids, or oxidising agents

Protect containers against physical damage

- ► Check regularly for spills and leaks
- ▶ No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

► Lined metal can, lined metal pail/ can.

Plastic pail.Polyliner drum.

Suitable container

► Plastic pail.

- ► Drums and jerricans must be of the non-removable head type.
- ▶ Where a can is to be used as an inner package, the can must have a screwed enclosure.

For materials with a viscosity of at least 2680 cSt.

Storage incompatibility

▶ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates.









For low viscosity materials







Must not be stored together

May be stored together with specific preventions

— May be stored together

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
US NIOSH Recommended Exposure Limits (RELs)	sodium hydroxide	Caustic soda, Lye, Soda lye, Sodium hydrate	Not Available	Not Available	2 mg/m3	Not Available
US ACGIH Threshold Limit Values (TLV)	sodium hydroxide	Sodium hydroxide	Not Available	Not Available	2 mg/m3	TLV® Basis: URT, eye, & skin irr
US OSHA Permissible Exposure Levels (PELs) - Table Z1	sodium hydroxide	Sodium hydroxide	2 mg/m3	Not Available	Not Available	Not Available

EMERGENCY LIMITS

 ie ittt-i	ILLL-Z	IEEL-3
DXIDE INOLAVA	ilable Not Availab	ole Not Available

Ingredient	Original IDLH	Revised IDLH
sodium hydroxide	10 mg/m3	Not Available

Exposure controls

Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.

Personal protection











Eye and face protection

Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.

	 Chemical goggles.whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.
Skin protection	See Hand protection below
Hands/feet protection	 ▶ Elbow length PVC gloves ▶ When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots.
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear strongly alkaline liquid with no odour; mixes with water.		
Physical state	Liquid	Relative density (Water = 1)	1.096
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Applicable
pH (as supplied)	13.3	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	Not Available
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	Inhaling corrosive bases may irritate the respiratory tract. Symptoms include cough, choking, pain and damage to the mucous membrane.
Ingestion	Ingestion of alkaline corrosives may produce burns around the mouth, ulcerations and swellings of the mucous membranes, profuse saliva production, with an inability to speak or swallow. Both the oesophagus and stomach may experience burning pain; vomiting and diarrhoea may follow.

Skin Contact	The material can produce severe chemical burns following direct contact with the skin. Skin contact with alkaline corrosives may produce severe pain and burns; brownish stains may develop. The corroded area may be soft, gelatinous and necrotic; tissue destruction may be deep. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.		
Еуе	If applied to the eyes, this material causes severe eye damage. Direct eye contact with corrosive bases can cause pain and burns. There may be swelling, epithelium destruction, clouding of the cornea and inflammation of the iris. Mild cases often resolve; severe cases can be prolonged with complications such as persistent swelling, scarring, permanent cloudiness, bulging of the eye, cataracts, eyelids glued to the eyeball and blindness.		
Chronic	the mouth and necrosis (rarely) of the jaw. Bronch may ensue.	ay result in the erosion of teeth, inflammatory and ulcerative changes in nial irritation, with cough, and frequent attacks of bronchial pneumonia	
	occupational exposure.	occur and may cause some concern following repeated or long-term	
	1	r occur and may cause some concern following repeated or long-term	
Calcium Test Solution #1	occupational exposure.	,	
Calcium Test Solution #1	occupational exposure. TOXICITY	IRRITATION	
Calcium Test Solution #1	TOXICITY Not Available	IRRITATION Not Available	
Calcium Test Solution #1	TOXICITY Not Available TOXICITY	IRRITATION Not Available IRRITATION	

SODIUM HYDROXIDE

Legend:

The material may produce severe irritation to the eye causing pronounced inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS.

Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.

Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant.

Acute Toxicity	0	Carcinogenicity	0
Skin Irritation/Corrosion	✓	Reproductivity	0
Serious Eye Damage/Irritation	✓	STOT - Single Exposure	0
Respiratory or Skin sensitisation	0	STOT - Repeated Exposure	0
Mutagenicity	0	Aspiration Hazard	0

Legend:

🗶 – Data available but does not fill the criteria for classification

Data available to make classification

Skin (rabbit): 500 mg/24h SEVERE

Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
Not Available	Not Available	Not Available	Not Available	Not Available
ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
LC50	96	Fish	125mg/L	4
NOEC	96	Fish	56mg/L	4
Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) -			,	
	Not Available ENDPOINT LC50 NOEC Extracted from	Not Available ENDPOINT TEST DURATION (HR) LC50 96 NOEC 96 Extracted from 1. IUCLID Toxicity Data 2. Europe ECH	Not Available Not Available ENDPOINT TEST DURATION (HR) LC50 96 NOEC 96 Fish Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxic	Not Available Not Available Not Available ENDPOINT TEST DURATION (HR) SPECIES VALUE LC50 96 Fish 125mg/L NOEC 96 Fish 56mg/L Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information -

Bioconcentration Data 8. Vendor Data

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium hydroxide	LOW	LOW

Bioaccumulative potential

Ingredient	Bioaccumulation
sodium hydroxide	LOW (LogKOW = -3.8796)

Mobility in soil

Ingredient	Mobility
sodium hydroxide	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

▶ Recycle wherever possible.

Product / Packaging disposal

- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- ▶ Treat and neutralise at an approved treatment plant.
- ► Containers may still present a chemical hazard/ danger when empty.
- Return to supplier for reuse/ recycling if possible.

Otherwise:

• If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required



Marine Pollutant

NO

Land transport (DOT)

UN number	1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	Class 8 Subrisk Not Applicable
Packing group	II
Environmental hazard	Not Applicable
Special precautions for user	Hazard Label 8 Special provisions B2, IB2, N34, T7, TP2

Air transport (ICAO-IATA / DGR)

UN number	1824
UN proper shipping name	Sodium hydroxide solution
Transport hazard class(es)	ICAO/IATA Class 8 ICAO / IATA Subrisk Not Applicable ERG Code 8L
Packing group	II
Environmental hazard	Not Applicable

Special precautions for user	Special provisions	A3 A803
	Cargo Only Packing Instructions	855
	Cargo Only Maximum Qty / Pack	30 L
	Passenger and Cargo Packing Instructions	851
	Passenger and Cargo Maximum Qty / Pack	1 L
	Passenger and Cargo Limited Quantity Packing Instructions	Y840
	Passenger and Cargo Limited Maximum Qty / Pack	0.5 L

Sea transport (IMDG-Code / GGVSee)

UN number	1824
UN proper shipping name	SODIUM HYDROXIDE SOLUTION
Transport hazard class(es)	IMDG Class 8 IMDG Subrisk Not Applicable
Packing group	II
Environmental hazard	Not Applicable
Special precautions for user	EMS Number F-A , S-B Special provisions Not Applicable Limited Quantities 1 L

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

SODIUM HYDROXIDE(1310-73-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS US - Alaska Limits for Air Contaminants US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants US - California OEHHA/ARB - Acute Reference Exposure Levels and US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits Target Organs (RELs) for Air Contaminants US - California Permissible Exposure Limits for Chemical Contaminants US - Washington Permissible exposure limits of air contaminants US - Hawaii Air Contaminant Limits US - Washington Toxic air pollutants and their ASIL, SQER and de minimis US - Idaho - Limits for Air Contaminants emission values US - Massachusetts - Right To Know Listed Chemicals US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air US - Michigan Exposure Limits for Air Contaminants Contaminants US - Minnesota Permissible Exposure Limits (PELs) US ACGIH Threshold Limit Values (TLV) US - Oregon Permissible Exposure Limits (Z-1) US CWA (Clean Water Act) - List of Hazardous Substances US - Pennsylvania - Hazardous Substance List US NIOSH Recommended Exposure Limits (RELs) US - Rhode Island Hazardous Substance List US OSHA Permissible Exposure Levels (PELs) - Table Z1 US - Tennessee Occupational Exposure Limits - Limits For Air US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory Contaminants US TSCA Chemical Substance Inventory - Interim List of Active Substances

Federal Regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SECTION 311/312 HAZARD CATEGORIES Flammable (Gases, Aerosols, Liquids, or Solids) No Gas under pressure No Explosive Self-heating No Pyrophoric (Liquid or Solid) No Pyrophoric Gas No Corrosive to metal Yes Oxidizer (Liquid, Solid or Gas) No Organic Peroxide No Self-reactive

In contact with water emits flammable gas	No
Combustible Dust	No
Carcinogenicity	No
Acute toxicity (any route of exposure)	No
Reproductive toxicity	No
Skin Corrosion or Irritation	Yes
Respiratory or Skin Sensitization	No
Serious eye damage or eye irritation	Yes
Specific target organ toxicity (single or repeated exposure)	No
Aspiration Hazard	No
Germ cell mutagenicity	No
Simple Asphyxiant	No

US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)

Name	Reportable Quantity in Pounds (lb)	Reportable Quantity in kg
Sodium hydroxide	1000	454

State Regulations

US. CALIFORNIA PROPOSITION 65

None Reported

National Inventory Status

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (sodium hydroxide)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	Y
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Revision Date	06/27/2017
Initial Date	Not Available

Other information

Ingredients with multiple cas numbers

mg. salonic with maniple sac names of	
Name	CAS No
sodium hydroxide	1310-73-2, 12200-64-5

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios.

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TEL (+61 3) 9572 4700.