1 Identification of the substances/ mixture and of the company/ undertaking

1.1 Product Identifiers

Product Number	M384
Product Name	Zobell Marine Agar (Marine Agar 2216)
REACH Registration Number	This product is a mixture. Reach registration number is not available for this mixture.

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

1.2.1 Relevant identified uses Laboratory Chemicals, Analytical Purpose, Biochemical Analysis

1.3 Details of the supplier of the safety data sheet

Produced by	HiMedia Laboratories Private Limited		
Address	C - 40,Road No.21Y,MIDC, Wagle Industrial Area, Thane(W), - 400 604, India		
Tel. No.	+91-22- 6147 1919/6116 9797	Fax No.	: +91-22- 61471920
Mail Id	info@himedialabs.com	Website	: www.himedialabs.com

1.4 Emergency Tel. No.

Emergency Tel. No. Please contact the regional HiMedia representation in your country

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2 Hazards Identification

2.1 Classification of the substance or mixture

CLP Classification-Regulation (EC) No. 1272/2008[EU-GHS/CLP]

Not a hazardous substance or mixture according to Regulation (EC) No.1272/2008.

2.2 Label elements

Labeling according to Regulation (EC) No.1272/2008

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other Hazards

None

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3 Composition/Information On Ingredients

3.2 Mixture

Component		Classification	Concentration
Boric acid			
CAS No. : EC No. : Index-No :	10043-35-3 233-139-2 005-007-00-2	**As Per EC Regulation 1272/2008** Repr.Tox. 1A, 1B H360	>=0.01 - <=0.1%

Component		Classification	Concentration
Calcium chloride, anhydrous			
CAS No. : EC No. :	10043-52-4 233-140-8	**As Per EC Regulation 1272/2008** Eye Irrit. 2A H319	>=1.0 - <=5.0%

Component		Classification	Concentration
Potassium bromide			
CAS No. : EC No. :	2139-62-0 231-830-3	**As Per EC Regulation 1272/2008** Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H315; H319; H335	>=0.1 - <=1.0%

Component		Classification	Concentration
Strontium chloride			
CAS No. : EC No. :	10476-85-4 233-971-6	**As Per EC Regulation 1272/2008** Skin Irrit. 2; Eye Dam. 1; STOT SE 3 H315; H318; H335	>=0.01 - <=0.1%

Component		Classification	Concentration
Ammonium nitrate			
CAS No. : EC No. :	6484-52-2 229-347-8	**As Per EC Regulation 1272/2008** Ox. Sol. 3; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3 H272; H315; H319; H335	>=0.001 - <=0.01%

Refer Section 16 for complete statement of H codes and its classification

4 First Aid Measures

4.1 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

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of immediate medical attention and special treatment needed

No data available

5 Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

No data available.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, Sodium oxides, Hydrogen chloride gas, Magnesium oxides, Sulphur oxides, Calcium oxide, Potassium oxides, Nitrogen oxides (NOx),

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary

5.4 Further information

No data available

6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

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

6.4 Reference to other sections

For disposal see Section 13.

7 Handling and Storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in 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.

Recommended Storage Temperature : On receipt store between 10-30°C

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8 Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.

Personal protective equipment

Hygiene measure

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.

Eye/face protection

Tightly fitting saftey goggles; Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425/EEC and the standard EN ISO 374-1/2016 derived from it.

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 (US) or type ABEK (EN 14387) 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 such as NIOSH (US) or CEN (EU).

Environment exposure controls

Do not empty into drains.

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9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Cream to yellow coloured homogeneous free flowing powder
Odour	No data available
Odour Threshold	No data available
pH	7.40 - 7.80
Melting/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Flammability (Solid, gas)	No data available
Vapour pressure	No data available
Relative density	No data available
Water Solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition Temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Vapour density	No data available
Thermal decomposition	No data available

9.2 Other safety information

No data available

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10 Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No data available

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

Refer Section 5.2

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11 Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity- single exposure

No data available

Aspiration hazard

No data available

Potential Health Effects

Inhalation

REFER SECTION 2

Skin

REFER SECTION 2

Eyes

REFER SECTION 2
Ingestion
REFER SECTION 2
Additional Information
RTECS **:** No data available

11.2 Components

Boric Acid
Acute Toxicity
Rat oral LD50 : 2660 mg/kg
Rabbit dermal LD50 : 2000 mg/kg
Mouse Oral: LD50 = 3450 mg/kg.

Additional information
RTECS : ED4550000
Specific concentration limits (SCL): >5.5%
Boric acid is included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)
Calcium chloride
Acute oral toxicity
Rat LD50 : 1,000 mg/kg
(As per IUCLID)
Acute dermal toxicity
Rat LD50 : 2,630 mg/kg
(As per IUCLID)
Skin irritation
Rabbit
Result : No irritation
(As per OECD Test Guideline 404)
Eye irritation
Rabbit
Result: Eye irritation
(As per OECD Test Guideline 405)
Causes serious eye irritation.
Additional Information
RTECS: EV9800000

Potassium bromide
Acute oral toxicity
Rat oral LD50: 2000 mg/kg,7d (ECHA)
(As per OECD Guideline 401)
Effect on Skin
Rabbit- No skin irritation ,4h
(As per OECD Guideline 404)
Effect on Eyes
Rabbit- Irritating to eyes
(As per OECD Guideline 405)

Germ cell mutagenicity
No data available
Carcinogenicity
No data available
Reproductive toxicity
No data available
Specific Target Organ Toxicity -Single Exposure
No data available
Specific Target Organ Toxicity -Repeated Exposure
No data available
Aspiration hazard
No data available
Additional Information
RTECS : TS7650000

Strontium chloride
Acute oral toxicity
Rat LD50 : 2,250 mg/kg
Germ cell mutagenicity
Mouse : Cytogenetic analysis
Specific target organ toxicity - single exposure
Inhalation : May cause respiratory irritation.

Additional information:
RTECS: WK8400000

Ammonium nitrate
Acute oral toxicity
LD50 rat: 2,462 mg/kg
Symptoms: Nausea, Vomiting, Diarrhoea, Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.
(OECD Test Guideline 401)
Acute inhalation toxicity
LC50 rat: > 88.8 mg/l; 4 h (IUCLID)
Symptoms: Inhalation may lead to the formation of oedemas in the respiratory tract.
(OECD Test Guideline 401)

Additional Information:
RTECS:BR9050000
Further information:
After absorption of large quantities:
Symptoms: Methaemoglobinaemia with headache, cardiac arrhythmia, drop in blood pressure, dyspnoea, and spasms, key symptom: cyanosis (blue colouration of the blood). The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting and diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis and haemolysis.

12 Ecological Information

12.1 Toxicity

No data available

Component

Boric Acid

Toxicity to fish

Gambusia affinis LC50 :5600 mg/l

Rainbow trout LC50:150mg B/L;24d

Goldfish LC50:46mg; 7d

Toxicity to daphnia and other aquatic invertebrates

Daphnia EC50 :115 mg/l

Components

Calcium chloride

Toxicity to fish

Lepomis macrochirus (Bluegill sunfish) LC50 : 10,650 mg/l; 96 h

(As per IUCLID)

Toxicity to daphnia and other aquatic invertebrates

Daphnia magna (Water flea) EC50 : 144 mg/l; 48 h

(As per IUCLID)

Toxicity to algae

AlgaeIC50 : 3,130 mg/l; 120 h

(As per IUCLID)

Components

Potassium bromide

Toxicity to fish

Pimephales promelas (Fathead Minnow) LC50: > 45 mg/l; 96 h

As per IUCLID

Toxicity to daphnia and other aquatic invertebrates

Daphnia magna (water flea) EC50: >1000 mg /L; 48 h

As per OECD Test guideline 202

Components:

Strontium chloride

Toxicity to fish

Austropotamobius pallipes pall LC50 : 440 mg/l; 96 h

Toxicity to daphnia and other aquatic invertebrates

Daphnia magna (Water flea) EC50 : 94 mg/l; 48 h

Toxicity to aquatic algae and cyanobacteria

Chlorella vulgaris : >150 mg Sr/L; 12 wk unbounded NOEC

Components:

Ammonium Nitrate

Toxicity to fish

LC50 Cyprinus carpio (Carp): 74 mg/l; 48 h (IUCLID)
Toxicity to daphnia and other aquatic invertebrates
EC50 Daphnia magna (Water flea): 555 mg/l(IUCLID)
Toxicity to algae
IC50 Scenedesmus quadricauda (Green algae): 83 mg/l(IUCLID)

12.2 Persistence and degradability
No data available

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 PBT and vPvB assessment
This substance or mixture contains no components considered to be persistent,bioaccumulating nor toxic (PBT) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available

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13 Disposal Considerations

13.1 Waste treatments methods
Product
Offer surplus and non- recyclable solutions to a licenced company. Contact a licenced professional waste disposal service to dispose off this material.

13.2 Contaminated packaging
Dispose of as unused product.

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14 Transport Information

14.1 UN-No
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

14.2 UN proper shipping name

ADNR	:	Not dangerous goods
ADR	:	Not dangerous goods
IATA_C	:	Not dangerous goods
IATA_P	:	Not dangerous goods
IMDG	:	Not dangerous goods
RID	:	Not dangerous goods

14.3 Transport hazard class(es)
ADNR : - ADR : - IATA_C : - IATA_P : - IMDG : - RID : -

14.4 Packaging group
ADNR : ADR : IATA_C : IATA_P : IMDG : RID :

14.5 Environmental hazards
ADNR : No ADR : No IMDG : Marine Pollutant No IATA_C : No IATA_P : No RID : No

14.6 Special precautions for use

No data available

15 Regulatory Information

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

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

No data available

15.2 Chemical Safety Assessment

No data available

16 Other information

H272	May intensify fire; oxidizer
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
Eye Dam. 1	Serious eye damage or eye irritation, Category 1
Eye Irrit. 2A	Serious eye damage or eye irritation, Category 2A
Ox. Sol. 3	Oxidising solids, Category 3
Repr.Tox. 1A, 1B	Reproductive toxicity, Category 1A, 1B
Skin Irrit. 2	Skin corrosion or irritation, Category 2
STOT SE 3	Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

Further Information

The information given in this safety data sheet is believed to be correct yet does not claim to be all inclusive. This document is intended only as a guide for appropriate precautionary handling of the material by properly trained individuals, information here being commensurate with the present state of our knowledge regarding the manner and conditions of use, handling, storage or disposal. The information provided herein shall not be considered as guarantee of the properties of the product. HiMedia Laboratories, shall not be held liable for any damage resulting from improper handling or contact with the above product. Unless explicitly stated on the product or in any of the documentation accompanying the product, it is intended for research or testing purpose only and is not to be used for any other purpose.