

**1 Identification of the substances/ mixture and of the company/ undertaking****1.1 Product Identifiers**

Product Number M385  
Product Name Zobell Marine Broth 2216 (Marine Broth 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  
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**1.4 Emergency Tel. No.**

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

**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

**3 Composition/Information On Ingredients****3.2 Mixture**

Component		Classification	Concentration
Calcium chloride,anhydrous			
CAS No. :	10043-52-4	<b>As Per EC Regulation 1272/2008</b> Eye Irrit. 2A H319	>=1.0 - <=10.0%
EC No. :	233-140-8		

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

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

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

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

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

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## **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

### **5.3 Precautions for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary

### **5.4 Further information**

No data available

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## **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.

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## **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.

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## **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 safety 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 89/686/EEC and the standard EN 374 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**

### **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

### **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.

**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

**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)

## **12 Ecological Information**

### **12.1 Toxicity**

No data available

#### **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*

Algae IC50 : 3,130 mg/l; 120 h

(As per IUCLID)

#### **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)

#### **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

#### **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

## **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**

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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.