

Section 1. Company Identification and Product Information			
<b>Product Name or Identity:</b> DM051- Bushnell Haas Broth			
<b>Manufacturer's Name &amp; Address</b>	Micromaster Laboratories Private Limited Unit 38/39, Kalpataru Industrial Estate, Off Ghodbunder Road, Nr. 'R-Mall' Thane (W)-400607. M.S. INDIA.	<b>Emergency Phone No.:</b>	9320126789/ 9833630009/9819991103
<b>Reference:</b>	According to Regulation (EC) No.1907/2006	<b>Email:</b>	<a href="mailto:sales@micromasterlab.com">sales@micromasterlab.com</a>
Section 2. Composition / Information on Hazardous Ingredients			
Ingredients	Grams/Litre	CAS no.	EC No.
Calcium chloride	0.02	10043-52-4	233-140-8
Ammonium nitrate	1.00	6484-52-2	229-347-8
Ferric chloride	0.05	7705-08-0	231-729-4
Irritant / Harmful / Dangerous to the Environment material			
Section 4. First Aid Measures			
<b>Description of first aid measures</b>			
<b>General advice</b> Consult a physician. Show this safety data sheet to the doctor in attendance.			
<b>If inhaled</b> If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.			
<b>In case of skin contact</b> Wash with plenty of soap and water. Consult a physician.			
<b>In case of eye contact</b> Rinse immediately with plenty of water for at least 15 minutes. Consult a physician.			
<b>If swallowed</b> Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.			
<b>Most important symptoms and effects, both acute and delayed</b> No data available.			
Section 5. Fire and Explosion Hazard Data			
<b>Extinguishing media</b>			
<b>Suitable extinguishing media</b> Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide . Advice for firefighters			
<b>Unsuitable extinguishing media</b> No data available.			
<b>Special hazards arising from the substance or mixture</b> Carbon oxides, Sulphur oxides, Magnesium oxide, Potassium oxides, Oxides of phosphorus, Nitrogen oxides (NOx),			
<b>Precautions for fire-fighters</b> Wear self-contained breathing apparatus for firefighting if necessary			
<b>Further information</b> No data available			
Section 6. Accidental Release Measures			
<b>Personal precautions, protective equipment and emergency procedures</b>			

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

**Environmental precautions.**

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

**Methods and materials for containment and cleaning up.**

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

**Reference to other sections.**

For disposal see Section 13.

## Section 7. Handling and Storage

**Precautions for safe handling**

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

**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. are opened must be carefully resealed and kept upright to prevent leakage.

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

**Specific end uses**

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

## Section 8. Exposure Controls / Personal Protection

**Control parameters**

Components with workplace control parameters

**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**

**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; Face shield (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.

## Section 9. Physical and Chemical Properties

**Information on basic physical and chemical**

Appearance	White to Cream coloured homogenous free flowing powder
Odour	No data available
Odour Threshold	No data available
pH	4.30 - 4.70
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

**Other safety information**

No data available

## Section 10. Stability and Reactivity

**Reactivity**

No data available

**Chemical stability**

No data available

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

No data available

**Incompatible materials**

No data available

**Hazardous decomposition products**

Refer Section 5.2

## Section 11. Toxicological Information

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 sensitization*

No data available

*Germ cell mutagenicity*

No data available

*Carcinogenicity*

No data available

*Specific target organ toxicity- single exposure*

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

**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)

**Ferrous sulphate**

*Acute Oral Toxicity*

Mouse LD50: 1.520 mg/kg

**Additional Information**

RTECS: NO8510000

**Manganese sulphate**

*Acute oral toxicity*

Rat LD50 :2,150 mg/kg

(As per IUCLID)

*Acute Dermal Toxicity*

Rat LD50: Not determined.

*Acute Inhalation Toxicity*

Rat LC50 : > 4.45 mg/l

(As per OECD Test Guideline 403)

**Additional Information**

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RTECS: OP1050000

**Potassium nitrate**

*Acute oral toxicity*

Rat LD50: 3,750 mg/kg

(As per IUCLID)

*Acute Dermal Toxicity*

Rat LD50 : > 5000 mg/kg

(As per OECD Test Guideline 402)

*Acute inhalation toxicity*

Rat LC50 : > 0.527 mg/L ; 4 h  
(As per OECD Test Guideline 403)

**Additional Information**

RTECS: TT370000

Zinc Sulphate, Heptahydrate

Acute Oral Toxicity

Rat LD50: 1,260 mg/kg (As Per RTECS)

Additional information

RTECS: ZH5300000

## Section 12. Ecological Information

**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**

**Ferrous sulphate**

*Toxicity to fish*

Brook trout (Salvelinus fontinalis) LC 50: 0.41 mg/l ; 96h

*Toxicity to daphnia and other aquatic invertebrates*

Water flea (Daphnia magna) EC 50:6.15 mg/l;48h

**Components**

**Manganese sulphate**

*Toxicity to Fish*

Onchorhynchus mykiss (Rainbow trout) LC50 :14.5 mg/l; 96h.

Pimephales promelas (fathead minnow) LC50 : 30.6 mg/l; 96 h.

*Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna (Water flea) EC50 : 8.3 mg/l; 48 h.

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*Acute Toxicity to Aquatic Plants*

Desmodesmus subspicatus (algae) EC50 61 mg/l; 72 h

(As per OECD Test Guideline 201)

**Components**

**Potassium nitrate**

*Toxicity to Fish*

Bluegill (Lepomis macrochirus)LC50 :420 mg/kg;96 h.

Western mosquitofish (Gambusia affinis) LC 50 :62 mg/kg ; 96h.

Poecilia reticulata (guppy)LC50 :191 mg/l; 96 h

*Toxicity to daphnia and other aquatic invertebrates*

Daphnia magna (Water flea)EC50 : 490 mg/l; 48 h

(As per IUCLID)

**Components**

Zinc Sulphate, Heptahydrate

*Toxicity to fish*

Oncorhynchus mykiss (rainbow trout)LC50: 0.1 mg/l; 96 h

(As Per ECOTOX Database)

Toxicity to algae  
 Scenedesmus quadricauda (green algae) IC50: 0.52 mg/l; 5 d  
 (As Per 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**

No data available

**12.6 Other adverse effects**

No data available

Section 13. Disposal Considerations

**Waste treatments methods**

**Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose off this material.

**13.2 Contaminated packaging**

Dispose of as unused product

Section 14. Transport Information

**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

Section 15. Regulatory Information

**Risk Phrases:** Irritating to eyes and respiratory system and skin

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

No data available

**Chemical Safety Assessment**

No data available

Section 16. Other Information

Text of H codes and classification mentioned in section 3

H272 May intensify fire; oxidizer

H302 Harmful if swallowed  
H315 Causes skin irritation  
H318 Causes serious eye damage  
H319 Causes serious eye irritation  
H360 May damage fertility or the unborn child  
H373 May cause damage to organs through prolonged or repeated exposure  
H410 Very toxic to aquatic life with long lasting effects  
H411 Toxic to aquatic life with long lasting effects  
Acute Tox. oral 4 Acute toxicity, oral, Category 4  
Aquatic Chronic 1 Hazardous to the aquatic environment, long term hazard, Category 1  
Aquatic Chronic 2 Hazardous to the aquatic environment, long term hazard, Category 2  
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 Oxidizing solids, Category 3  
Repr.Tox. 1A, 1B Reproductive toxicity, Category 1A, 1B  
Skin Irrit. 2 Skin corrosion or irritation, Category 2  
STOT RE 2 Specific target organ toxicity, repeated exposure, Category 2

#### **Further Information**

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