



Dehydrated Culture Media  
Bases / Media Supplements

# Material Safety Data Sheet

Name of the Product		MRS Broth, Modified (Lactobacillus Heteroferm Screen Broth)												
Code No.		DM2164												
Section 1	Chemical Identification													
	Code No.	:	DM 2164											
	Name of the Product	:	MRS Broth, Modified (Lactobacillus Heteroferm Screen Broth)											
	Produced by	:	Central Drug House Pvt. Ltd.											
	Address	:	7/28 Vardaan House, Darya Ganj, New Delhi (INDIA)											
	Tel. No.	:	00 91 11 49404040											
Section 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												
Section 3	Composition/Information On Ingredients													
	3.1	Mixture												
		<table><tr><th>Component</th><th>Classification</th><th>Concentration</th></tr><tr><td colspan="3">2-phenyl ethanol</td></tr><tr><td>CAS No. : 60-12-8</td><td rowspan="2">As Per EC Regulation 1272/2008 Acute Tox.oral 4; Acute Tox. dermal. 3; Skin Irrit. 2; Eye Dam. 1 H302; H311; H315; H318</td><td rowspan="2">&gt;=1.0 - &lt;=10.0%</td></tr><tr><td>EC No. : 200-456-2</td></tr></table>		Component	Classification	Concentration	2-phenyl ethanol			CAS No. : 60-12-8	As Per EC Regulation 1272/2008 Acute Tox.oral 4; Acute Tox. dermal. 3; Skin Irrit. 2; Eye Dam. 1 H302; H311; H315; H318	>=1.0 - <=10.0%	EC No. : 200-456-2	
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	<b>Component</b>	<b>Classification</b>	<b>Concentration</b>
	Cycloheximide		
	CAS No. : 66-81-9 EC No. : 200-636-0 Index-No : 613-140-00-8	<b>As Per EC Regulation 1272/2008</b> Acute Tox. oral 1,2; Skin Irrit. 2; Muta. 2; Repr. 1B; Aquatic Chronic 2 H300; H315; H341; H360D; H411	$\geq 0.01 - \leq 0.1\%$
Refer Section 16 for complete statement of H codes and its classification			
Section 4	<b>First - Aid Measures</b>		
	<p><b>4.1 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 off with soap and plenty of 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.</p> <p><b>4.2 Most important symptoms and effects, both acute and delayed</b>  No data available.</p> <p><b>4.3 Indication of immediate medical attention and special treatment needed</b>  No data available</p>		
Section 5	<b>Fire Fighting Measures</b>		
	<p><b>5.1 Extinguishing media</b>  <b>Suitable extinguishing media</b>  Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  <b>Unsuitable extinguishing media</b>  No data available.</p> <p><b>5.2 Special hazards arising from the substance or mixture</b>  Carbon oxides, Potassium oxides, Oxides of phosphorus</p> <p><b>5.3 Precautions for fire-fighters</b>  Wear self contained breathing apparatus for fire fighting if necessary</p> <p><b>5.4 Further information</b>  No data available</p>		
Section 6	<b>Accidental Release Measures</b>		
	<p><b>6.1 Personal precautions, protective equipment and emergency procedures</b>  Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.</p> <p><b>6.2 Environmental precautions</b>  Prevent further leakage or spillage if safe to do so. Do not let product enter drains.</p> <p><b>6.3 Methods and materials for containment and cleaning up</b>  Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.</p>		



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	<p><b>6.4 Reference to other sections</b> For disposal see Section 13.</p>																
Section 7	<p><b>Handling and Storage</b></p> <p><b>7.1 Precautions for safe handling</b> Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Normal measures for preventive fire protection.</p> <p><b>7.2 Conditions for safe storage, including any incompatibilities</b> 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. <b>Recommended Storage Temperature</b> : On receipt store between 10-30°C</p> <p><b>7.3 Specific end uses</b> Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.</p>																
Section 8	<p><b>Exposure Controls / Personal Protection</b></p> <p><b>8.1 Control parameters</b> Components with workplace control parameters</p> <p><b>8.2 Exposure controls</b> <b>Appropriate engineering controls</b> Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the products.</p> <p><b>Personal protective equipment</b> <b>Hygiene measure</b> Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with the product.</p> <p><b>Eye/face protection</b> 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).</p> <p><b>Skin protection</b> 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.</p> <p><b>Body protection</b> 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.</p> <p><b>Respiratory protection</b> 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).</p> <p><b>Environment exposure controls</b> Do not empty into drains.</p>																
Section 9	<p><b>Physical and Chemical Properties</b></p> <p><b>9.1 Information on basic physical and chemical properties</b></p> <table> <tr> <td>Appearance</td><td>Light yellow to bluish grey homogenous free flowing powder</td></tr> <tr> <td>Odour</td><td>No data available</td></tr> <tr> <td>Odour Threshold</td><td>No data available</td></tr> <tr> <td>pH</td><td>4.10 – 4.50</td></tr> <tr> <td>Melting/freezing point</td><td>No data available</td></tr> <tr> <td>Initial boiling point and boiling range</td><td>No data available</td></tr> <tr> <td>Flash point</td><td>No data available</td></tr> <tr> <td>Flammability (Solid, gas)</td><td>No data available</td></tr> </table>	Appearance	Light yellow to bluish grey homogenous free flowing powder	Odour	No data available	Odour Threshold	No data available	pH	4.10 – 4.50	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
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	<p>Vapour pressure Relative density Water Solubility Partition coefficient: n-octanol/water Autoignition Temperature Viscosity Explosive properties Oxidizing properties Vapour density Thermal decomposition</p> <p><b>9.2 Other safety information</b> No data available</p>	<p>No data available No data available No data available No data available No data available No data available No data available No data available No data available No data available</p>
Section 10	<b>Stability and Reactivity</b>	
	<p><b>10.1 Reactivity</b> No data available</p> <p><b>10.2 Chemical stability</b> No data available</p> <p><b>10.3 Possibility of hazardous reactions</b> No data available</p> <p><b>10.4 Conditions to avoid</b> No data available</p> <p><b>10.5 Incompatible materials</b> No data available</p> <p><b>10.6 Hazardous decomposition products</b> Refer Section 5.2</p>	
Section 11	<b>Toxicological Information</b>	
	<p><b>11.1 Information on toxicological effects</b></p> <p><b>Acute toxicity</b> No data available</p> <p><b>Skin corrosion/irritation</b> No data available</p> <p><b>Serious eye damage/eye irritation</b> No data available</p> <p><b>Respiratory or skin sensitisation</b> No data available</p> <p><b>Germ cell mutagenicity</b> No data available</p> <p><b>Carcinogenicity</b> 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.</p> <p><b>Reproductive toxicity</b> No data available</p> <p><b>Specific target organ toxicity- single exposure</b> No data available</p> <p><b>Aspiration hazard</b> No data available</p> <p><b>Potential Health Effects</b></p> <p><b>Inhalation</b> REFER SECTION 2</p> <p><b>Skin</b> REFER SECTION 2</p> <p><b>Eye</b></p>	



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	<p>REFER SECTION 2</p> <p><b>Ingestion</b></p> <p>REFER SECTION 2</p> <p><b>Additional Information</b></p> <p>RTECS : no data available</p>
11.2	<p><b>Components</b></p> <p>Ammonium citrate</p> <p>No toxicological data available</p> <p><b>Additional information</b></p> <p>RTECS: GE7545000</p> <p><b>Manganese sulphate</b></p> <p>Acute oral toxicity</p> <p>Rat LD50 :2,150 mg/kg</p> <p>(As per IUCLID)</p> <p>Acute Dermal Toxicity</p> <p>Rat LD50: Not determined.</p> <p>Acute Inhalation Toxicity</p> <p>Rat LC50 : &gt; 4.45 mg/l</p> <p>(As per OECD Test Guideline 403)</p> <p><b>Additional Information</b></p> <p>RTECS: OP1050000</p> <p><b>Cycloheximide</b></p> <p>Acute oral toxicity</p> <p>Rat LD50 : 2mg/kg</p> <p>Skin Corrosion/Irritation</p> <p>Skin-rabbit Result: Skin irritation: 24 h</p> <p>Germ cell mutagenicity</p> <p>Lab experiments have shown mutagenic effects.</p> <p>Invitro tests showed mutagenic effects.</p> <p>Reproductive toxicity</p> <p>May cause congenital malformation in the fetus.</p> <p>Presumed human reproductive toxicant.</p> <p>Liver-irregularities-based on human evidence.</p> <p><b>Additional information:</b></p> <p>RTECS: MA4375000</p> <p><b>2-Phenyl ethanol</b></p> <p>Acute oral toxicity</p> <p>Rat LD50: 2,230 mg/kg</p> <p>Acute inhalation toxicity</p> <p>No data available</p> <p>Acute dermal toxicity</p> <p>Rabbit LD50:&gt;300-2,000 mg/kg</p> <p>Skin irritation</p> <p>Rabbit Result: Non Irritant</p> <p>Eye irritation</p> <p>Rabbit Result: Irritant</p> <p>Sensitisation</p> <p>Patch test</p> <p>Human Result: Negative</p> <p>Ames test Result:Negative</p>



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	<p>Mutagenicity (mammal cell test) No data available Carcinogenicity No data available Toxicity to Reproduction No data available Teratogenicity No data available <b>Additional information:</b> RTECS: SG7175000</p>
Section 12	<b>Ecological Information</b>
	<p><b>12.1 Toxicity</b> No data available <b>Components:</b> <b>Manganese sulphate</b> 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. Acute Toxicity to Aquatic Plants Desmodesmus subspicatus (algae) EC50 61 mg/l; 72 h (As per OECD Test Guideline 201) <b>Components:</b> <b>2-Phenyl ethanol</b> <i>Toxicity to fish</i> Leuciscus idus (Golden orfe) LC50: 220 -460 mg/l; 96 h Toxicity to daphnia and other aquatic invertebrates Daphnia magna (Water flea) EC50: 287 mg/l; 48 h Toxicity to algae Desmodesmus subspicatus (green algae) IC50: 490 mg/l; 72 h Toxicity to bacteria Pseudomonas putida EC50: 1,320 mg/l; 17 h</p> <p><b>12.2 Persistence and degradability</b> No data available</p> <p><b>12.3 Bioaccumulative potential</b> No data available</p> <p><b>12.4 Mobility in soil</b> No data available</p> <p><b>12.5 PBT and vPvB assessment</b> This substance or mixture contains no components considered to be persistent, bioaccumulating nor toxic (PBT) at levels of 0.1% or higher.</p> <p><b>12.6 Other adverse effects</b> No data available</p>



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Section 13	<b>Disposal Considerations</b>												
	<p><b>13.1 Waste treatments methods</b>  <b>Product</b>  Offer surplus and non-recyclable solutions to a licenced disposal company. Contact a licenced professional waste disposal service to dispose off this material.</p> <p><b>13.2 Contaminated packaging</b>  Dispose of as unused product.</p>												
Section 14	<b>Transport Information</b>												
	<p><b>14.1 UN-No</b>  ADNR: ADR: IATA_C: IATA_P: IMDG: RID:</p> <p><b>14.2 UN proper shipping name</b>  ADNR : Not dangerous good  ADR : Not dangerous good  IATA_C : Not dangerous good  IATA_P : Not dangerous good  IMDG : Not dangerous good  RID : Not dangerous good</p> <p><b>14.3 Transport hazard class (es)</b>  ADNR: ADR: IATA_C: IATA_P: IMDG: RID:</p> <p><b>s14.4 Packaging group</b>  ADNR: ADR: IATA_C: IATA_P: IMDG: RID:</p> <p><b>14.5 Environmental hazards</b>  ADNR : No ADR : No IMDG : Marine pollutant No IATA_C : No IATA_P : No RID : No</p> <p><b>14.6 Special precautions for use</b>  No data available</p>												
Section 15	<b>Regulatory Information</b>												
	<p>This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.</p> <p><b>15.1 Safety health and environment regulations/legislation specific for the substance or mixture</b>  No data available</p> <p><b>15.2 Chemical Safety Assessment</b>  No data available</p>												
Section 16	<b>Other Information</b>												
	<table> <tr> <td>H300</td><td>Fatal if swallowed</td></tr> <tr> <td>H302</td><td>Harmful if swallowed</td></tr> <tr> <td>H311</td><td>Toxic in contact with skin</td></tr> <tr> <td>H315</td><td>Causes skin irritation</td></tr> <tr> <td>H318</td><td>Causes serious eye damage</td></tr> <tr> <td>H319</td><td>Causes serious eye irritation</td></tr> </table>	H300	Fatal if swallowed	H302	Harmful if swallowed	H311	Toxic in contact with skin	H315	Causes skin irritation	H318	Causes serious eye damage	H319	Causes serious eye irritation
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H335	May cause respiratory irritation
H341	Suspected of causing genetic defects
H360D	May damage the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
Acute Tox. dermal. 3	Acute toxicity, dermal, Category 3
Acute Tox. oral 1,2	Acute toxicity, oral, Category 1, 2
Acute Tox.oral 4	Acute toxicity, oral, Category 4
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
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Irrit. 2	Skin corrosion or irritation, Category 2
STOT RE 2	Specific target organ toxicity, repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity, single exposure, Respiratory tract irritation, Category 3

### Further Information

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. The information is offered solely for user's obligation to investigate and determine the suitability of the information for their particular purpose.