

# MATERIAL SAFETY DATA SHEET (MSDS)

# MOPS (BIOLOGICAL BUFFER) MORPHOLINO PROPANE SULPHONIC ACID

## 1. Identification of the substance/mixture and of the company/undertaking

| <u>1.1. Product identifier</u>   |  |  |
|--|--|--|
| Trade name   | : MOPS (BIOLOGICAL BUFFER) MORPHOLINO PROPANE<br>SULPHONIC ACID                                |  |
| Product code   | : M0139700025  |  |
| Identification of the product  | : MORPHOLINOPROPANE SULFONIC ACID (MOPS) 99% (Bio-Bu   |  |
|  | CAS No: 1132-61-2  |  |
| 1.2. Relevant identified uses of the substance or mixture and uses advised against |  |  |
| Use  | : Industrial. For professional use only.   |  |
| 1.3. Details of the supplier of the safety data sheet                              |  |  |
| Company identification   | SUVCHEM<br>Chaitanya Tower, 2nd Floor, Office # 206,<br>Siddharth Nagar, S.V. Road,            |  |
|  | Goregaon (West), Mumbai - 400062,<br>Maharashtra, India.<br>Contact: +91 22 28725393 / 94 / 95 |  |
| <u>1.4. Emergency telephone number</u>   | Goregaon (West), Mumbai - 400062,<br>Maharashtra, India.                                       |  |

### 2. Hazards identification -DSD

#### 2.1. Classification of the substance or mixture

| Classification            | : Xi; R36/37/38   |
|---------------------------|---|
| Hazard Class and Category | <u>v Code(s), Regulation (EC) No 1272/2008 (CLP)</u>  |
| Health hazards            | : Specific Target Organ Toxicity - Single exposure - Respiratory tract irritation -<br>Category 3 - Warning (CLP : STOT SE 3) H335<br>Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315<br>Acute toxicity, Oral - Category 4 - Warning (CLP : Acute Tox. 4) H302 |

## Labelling EC 67/548 or EC 1999/45

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### 2. Hazards identification -DSD (continued)

Symbol(s)



| Symbol(s)<br>R Phrase(s)<br>S Phrase(s)     | <ul> <li>Xi : Irritant</li> <li>R36/37/38 : Irritating to eyes, respiratory system and skin.</li> <li>S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</li> <li>S36 : Wear suitable protective clothing.</li> </ul>  |
|---|---|
| Labelling Regulation EC 1272/2008 (C        | <u>LP)</u>  |
| Hazard pictograms                           |   |
| Signal words                                | : Warning   |
| Hazard statements                           | <ul> <li>H302 : Harmful if swallowed.</li> <li>H319 : Causes serious eye irritation.</li> <li>H315 : Causes skin irritation.</li> <li>H335 : May cause respiratory irritation.</li> </ul>   |
| Precautionary statements                    |   |
| Prevention                                  | <ul> <li>P280: Wear protective gloves, protective clothing, eye protection, face protection.</li> <li>P271: Use only outdoors or in a well-ventilated area.</li> <li>P261: Avoid breathing dust, fume, gas, mist, vapours, spray.</li> <li>P264: Wash thoroughly after handling.</li> <li>P270: Do not eat, drink or smoke when using this product.</li> </ul>  |
| • Response                                  | <ul> <li>P302+P352: IF ON SKIN : Wash with plenty of soap and water.<br/>P301+P312: IF SWALLOWED : Call a POISON CENTER or doctor if you feel<br/>unwell.</li> <li>P332+P313: If skin irritation occurs : Get medical advice.</li> <li>P305+P351+P338: IF IN EYES : Rinse cautiously with water for several minutes.</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position<br/>comfortable for breathing.</li> <li>P363: Wash contaminated clothing before reuse.</li> </ul> |
| Storage                                     | : P403+P233: Store in well-ventilated place. Keep container tightly closed.<br>P405: Store locked up.   |
| <ul> <li>Disposal considerations</li> </ul> | : P501: Dispose of this material and its container to hazardous or special waste<br>collection point, in accordance with local, regional, national and/or international<br>regulation.  |
| 2.3. Other hazards                          |   |
| Other hazards                               | : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.   |



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| 3. | Composition/information on ingred   | lients  |  |
|----|---|---|--|
|    | Substance / Preparation   | : MORPHOLINOPROPANE SULFONIC ACID (MOPS) 99% (Bio-Bu  |  |
|    | Contains no other components or impurit   | Substance.<br>ies which will influence the classification of the product.   |  |
| 4. | First aid measures  |   |  |
|    | 4.1. Description of first aid measures  |   |  |
|    | Inhalation  | : Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.  |  |
|    | Skin contact  | : Specific treatment (see on this label). Get medical advice. If skin irritation occurs : Wash with plenty of soap and water. Wash contaminated clothing before reuse.              |  |
|    | Eye contact   | : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists : Get medical advice.             |  |
|    | Ingestion   | : Obtain emergency medical attention. Do NOT induce vomiting. Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.   |  |
|    | 4.2. Most important symptoms and effe   | ects, both acute and delayed  |  |
|    | Symptoms relating to use  | : Swallowing a small quantity of this material will result in serious health hazard.<br>Causes serious eye irritation.<br>Causes skin irritation. May cause respiratory irritation. |  |
|    | 4.3. Indication of any immediate medical attention and special treatment needed |   |  |
|    | General information   | : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).   |  |
| 5. | Fire-fighting measures  |   |  |
|    | 5.1. Extinguishing media  |   |  |

| Suitable extinguishing media                               | : Foam. Dry powder. Carbon dioxide. Water spray. Sand.   |
|--|--|
| Unsuitable extinguishing media                             | : Do not use a heavy water stream.                       |
| Surrounding fires  | : Use water spray or fog for cooling exposed containers. |
| 5.2. Special hazards arising from the substance or mixture |  |

Hazardous combustion products : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters



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| 5. Fire-fighting measures (continued) |   |  |
|---------------------------------------|---|--|
| Protection against fire               | : Do not enter fire area without proper protective equipment, including respiratory protection.                       |  |
| Special procedures                    | : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.          |  |
|                                       |   |  |
| 6. Accidental release measures        |   |  |
| 6.1. Personal precautions, protectiv  | e equipment and emergency procedures  |  |
| For emergency responders              | : Equip cleanup crew with proper protection.<br>Ventilate area.   |  |
| For non-emergency personnel           | : Evacuate unnecessary personnel.   |  |
| 6.2. Environmental precautions        |   |  |
| Environmental precautions             | : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.            |  |
| 6.3. Methods and material for contain | 6.3. Methods and material for containment and cleaning up   |  |
| Clean up methods                      | : On land, sweep or shovel into suitable containers. Minimize generation of dust.<br>Store away from other materials. |  |
| 6.4. Reference to other sections      |   |  |
| See section 8. Exposure controls/pers | onal protection   |  |

## 7. Handling and storage

### 7.1. Precautions for safe handling

| Handling  | : Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. |  |
|---|---|--|
| Technical protective measures                                     | : Provide good ventilation in process area to prevent formation of vapour.  |  |
| Special precautions   | : Avoid breathing dust, fume, gas, mist, vapours, spray.  |  |
| 7.2. Conditions for safe storage, including any incompatibilities |   |  |
| Storage   | : Keep only in the original container in a cool, well ventilated place. Keep container<br>tightly closed.   |  |
| Storage - away from   | : Strong bases. Strong acids. Sources of ignition. Direct sunlight.   |  |
| <u>7.3. Specific end use(s)</u>                                   |   |  |



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Specific end use(s)

: None.

## 8. Exposure controls/personal protection

7. Handling and storage (continued)

#### 8.1. Exposure controls

| Personal protection                        | : Avoid all unnecessary exposure.         |
|--|---|
| <ul> <li>Respiratory protection</li> </ul> | : Wear approved mask.                     |
| <ul> <li>Hand protection</li> </ul>        | : Wear protective gloves.                 |
| <ul> <li>Skin protection</li> </ul>        | : Wear suitable protective clothing.      |
| Eye protection                             | : Chemical goggles or safety glasses.     |
| Others                                     | : When using, do not eat, drink or smoke. |
| 8.2. Control parameters                    |   |

: No data available.

### 9. Physical and chemical properties

**Occupational Exposure Limits** 

### 9.1. Information on basic physical and chemical properties

| Physical state at 20 °C<br>Colour<br>Odour<br>Odour threshold<br>pH value<br>Melting point [°C]<br>Decomposition point [°C]<br>Critical temperature [°C]<br>Critical temperature [°C]<br>Auto-ignition temperature [°C]<br>Flammability (solid, gas)<br>Flash point [°C]<br>Boiling point [°C]<br>Initial boiling point [°C]<br>Final boiling point [°C]<br>Evaporation rate<br>Vapour pressure [20°C] | : Solid.<br>: White crystalline<br>: Odorless<br>: No data available.<br>: Not applicable.<br>: 277 °C<br>: N/A<br>: N/A |
|--|--|
| Vapour pressure mm/Hg<br>Vapour density  | : N/A<br>: N/A   |
|  |  |



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## 9. Physical and chemical properties (continued)

| Density [g/cm3]<br>Relative density, gas (air=1)<br>Relative density, liquid (water=1)<br>Solubility in water [% weight]<br>Solubility in water<br>Log Pow octanol / water at 20°C<br>Solubility<br>Viscosity at 40°C [mm2/s]<br><u>9.2. Other information</u> | : N/A<br>: N/A<br>: 209 g/l at 20 °C - c<br>: N/A<br>: No data available.<br>: 2.5 - 4 at 209 g/l a<br>: N/A |
|--|--|
| Explosive properties   | : N/A  |
| Explosion limits - upper [%]   | : N/A  |
| Explosion limits - lower [%]   | : N/A  |
| Oxidising properties   | : No data available.   |

## 10. Stability and reactivity

| 10.1. Reactivity                         |  |  |
|--|--|--|
| Reactivity                               | : Not established.                                     |  |
| 10.2. Chemical stability                 |  |  |
| Chemical stability                       | : Stable under recommended storage conditions.         |  |
| 10.3. Possibility of hazardous reactions |  |  |
| Hazardous reactions                      | : Not established.                                     |  |
| 10.4. Conditions to avoid                |  |  |
| Conditions to avoid                      | : Direct sunlight. Extremely high or low temperatures. |  |
| 10.5. Incompatible materials             |  |  |
| Materials to avoid                       | : Strong acids. Strong bases.                          |  |
| 10.6. Hazardous decomposition products   |  |  |
| Hazardous decomposition products         | : Fumes. Carbon monoxide. Carbon dioxide.              |  |



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## 11. Toxicological information

## 11.1. Information on toxicological effects

| Acute toxicity                |  |
|-------------------------------|--|
| Inhalation                    | : Based on available data, the classification criteria are not met.                              |
| • Dermal                      | : Based on available data, the classification criteria are not met.                              |
| <ul> <li>Ingestion</li> </ul> | : Harmful if swallowed.  |
| Corrosion                     | : Based on available data, the classification criteria are not met.                              |
| Irritation                    | : Causes serious eye irritation.<br>Causes skin irritation.<br>May cause respiratory irritation. |
| Sensitization                 | : Based on available data, the classification criteria are not met.                              |
| Mutagenicity                  | : Based on available data, the classification criteria are not met.                              |
| Carcinogenicity               | : Based on available data, the classification criteria are not met.                              |
| Toxic for reproduction        | : Based on available data, the classification criteria are not met.                              |
| STOT-single exposure          | : Based on available data, the classification criteria are not met.                              |
| STOT-repeated exposure        | : Based on available data, the classification criteria are not met.                              |
| Aspiration hazard             | : Based on available data, the classification criteria are not met.                              |

## 12. Ecological information

| <u>12.1. Toxicity</u>   |                    |  |
|---|--------------------|--|
| Toxicity information  | : Not established. |  |
| 12.2. Persistence - degradability   |                    |  |
| Persistence - degradability   | : Biodegradable.   |  |
| 12.3. Bioaccumulative potential   |                    |  |
| Bioaccumulative potential   | : Not established. |  |
| <u>12.4. Mobility in soil</u>   |                    |  |
| Mobility in soil  | : Not established. |  |
| 12.5. Results of PBT and vPvB assessment  |                    |  |
| <b>Results of PBT and vPvB assessment</b> : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH. |                    |  |
| 12.6. Other adverse effects   |                    |  |

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| 12. Ecological information (continued)   |   |  |
|--|---|--|
| Environmental precautions  | : Avoid release to the environment.   |  |
|  |   |  |
| 13. Disposal considerations  |   |  |
| 13.1. Waste treatment methods  |   |  |
| General  | : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.<br>Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. |  |
| 14. Transport information  |   |  |
| 14.1. Land transport (ADR-RID)   |   |  |
| General information  | : Not regulated.  |  |
| <u>14.2. Sea transport (IMDG) [English only]</u>   |   |  |
| General information  | : Not regulated.  |  |
| 14.3. Air transport (ICAO-IATA) [English only]   |   |  |
| General information  | : Not regulated.  |  |
| 15. Regulatory information   |   |  |
| 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture   |   |  |
| Safety, health and environmental Ensure all national/local regulations are observed.<br>regulations/legislation specific for the<br>substance or mixture |   |  |

| REACH Restrictions - Annex XVII  | : The components of this product are not subject to restrictions.  |
|----------------------------------|--|
| REACH Authorisation - Annex XIV  | : The components of this product are not subject to authorization. |
| 15.2. Chemical Safety Assessment |  |

Chemical Safety Assessment : It has not been carried out.



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In accordance with REACH Regulation (CE) Nº 1907/2006 and with CLP Regulation (CE) Nº 1272/2008

# DISCLAIMER:

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- SUVCHEM shall not be responsible for any damage resulting from handling or from contact with the above product.
- SUVCHEM provides the information contained herein in good faith but makes no representation as to its
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  the material by a properly trained person using this product.

End of document