

IBI SCIENTIFIC

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Skin Irritant 2 Eye Irritant 2

Warning

Issuing Date: 23-Dec-2009

Revision Date: 20-Dec-2011

Rev. 3

| 1. IDENTIFICATION OF THE SUBSTANCE/ MIXTURE AND THE COMPANY/UNDERTAKING | |
|---|---|
| Product Name: | MOPS |
| Product Code: | IB70170 |
| Recommend Use: | For further manufacturing use only Not for human or animal drug use Zwitterionic buffer for cell culture, enzyme assay, some electrophoretic applications |
| Company: | IBI SCIENTIFIC 9861 Kapp Court Peosta, IA 52068 |
| Emergency Tele. Number: | 3E Company (Acct# 9027) 1-800-451-8346 / (001) 760-602-8703 |
| Company Tele. Number: | 1-800-253-4942 / (001) 563-690-0484 |
| E-Mail Address: | info@ibisci.com |

2. HAZARDOUS IDENTIFICATION

GHS – Classification

| Classification: | |
|------------------------|--|
| Signal Word: | |



Hazard Statements:

Precautionary Statements:

H315-Causes skin irritation * H319-Causes serious eye irritation * H335-May cause respiratory irritation.

P280-Wear protective gloves/protective clothing/eye protection/face protection * P302+P352-IF ON SKIN: Wash with plenty of soap and water * P304+P340-IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing * P311-Call a Poison Center or doctor/physician * P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

| 3. COMPOSITION/INFORMATION ON INGREDIENTS | | |
|---|----------------------------------|--|
| Chemical Name: | 4-Morpholinepropanesulfonic acid | |
| EC No.: | EEC No. 214-478-5 | |
| REACH Reg. No.: | Not Available | |
| CAS No.: | 1132-61-2 | |
| Weight %: | 95-100% | |
| Classification: | R43 | |

MATERIAL SAFETY DATA SHEET

IB70170-MOPS

| 4. FIRST AID MEASUR | RES CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR CONTRACT |
|---------------------|---|
| Eye Contact: | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |
| Skin Contact: | Wash off immediately with soap and plenty of water, removing all contaminated clothes and shoes. |
| Inhalation: | Move to fresh air. If breathing becomes difficult, give oxygen. |
| Ingestion: | Clean mouth with water and afterwards drink plenty of water. |
| Notes to Physician: | Treat symptomatically. |

5. FIRE FIGHTING MEASURES

| Flammable Properties: | Not flammable |
|---|--|
| Flash Point: | Not determined |
| Suitable Extinguishing Media: | Dry chemical, CO ₂ , water spray, or regular foam |
| Hazardous Combustion Products: | Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides |
| Explosion Data | |
| Sensitivity to Mechanical Impact: | Not sensitive |
| Sensitivity to Static Discharge: | Not sensitive |
| Protective Equip. & Precautions for Firefighters: | As in any fire, wear self-contaimed breathing apparatus pressure-demand, MSHA/NIOSH (approved or equiv.) and full protective gear. |

| 6. ACCIDENTAL RELEASE MEASURES | |
|--------------------------------|--|
| Personal Precautions: | Avoid contact with skin, eyes, and clothing. Ensure adequate ventilation. |
| Methods for Containment: | Prevent further leakage or spillage, if safe to do so. |
| Methods for Cleaning Up: | Avoid dust formation. Pick up and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete. |

| 7. HANDLING AND STORAGE | | |
|-------------------------------|---|--|
| Handling: | Handle in accordance with good industrial hygiene and safety practice. | |
| Storage: | Keep container tightly closed in a dry, cool, and well ventilated place. Hygroscopic. Protect from moisture. | |
| Incompatible Products: | Strong oxidizing agents. Strong bases. | |
| 8. EXPOSURE CONTROLS | Personal Protection | |
| Engineering Measures: | Showers, Eyewash Stations, Ventilation Systems | |
| Personal Protective Equipment | | |
| Eye/Face Protection: | Safety glasses with side shields. | |
| Skin & Body Protection: | Wear protective gloves/clothing. | |
| Respiratory Protection: | If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations. | |
| Hygiene Measures: | Handle in accordance with good industrial hygiene and safety practice. | |

| 9. PHYSICAL AND CHEMICAL PROPERTIES | |
|-------------------------------------|--------------------------|
| Appearance: | Fine white powder |
| Odor: | No information available |
| Odor Threshold: | No information available |
| Decomposition Temp. °C: | No information available |
| Freezing Point: | No information available |

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| Initial Boiling Point: | No information available |
|--|---|
| Physical State: | Crystalline powder |
| pH: | No data available |
| Flash Point: | No data available |
| Autoignition Temp. °C: | No data available |
| Boiling Point/Range: | No data available |
| Melting Point/Range: | 277°C |
| Flammability Limits (Air): | <u>Upper</u> -No data available * <u>Lower</u> -No data available |
| Explosive Properties: | No information available |
| Oxidizing Properties: | No information available |
| Evaporation Rate: | No data available |
| MMHG @ 37.8°C: | No data available |
| Vapor Density: | No data available |
| Specific Gravity: | No data available |
| Density: | No data available |
| Solubility: | No information available |
| Water Solubility: | No data available |
| Partition Coefficient (n-octanol/water): | No data available |
| Viscosity: | No information available |
| | |

| Stability: | Stable under recommended storage conditions |
|-----------------------------------|---|
| Incompatible Products: | Strong oxidizing agents, Strong bases |
| Conditions to Avoid: | None known based on information supplied |
| Hazardous Decomposition Products: | Carbon oxides, Nitrogen oxides (NOx), Sulfur oxides |
| Hazardous Polymerization: | Hazardous polymerization does not occur. |

| 11. TOXICOLOGICAL INFORMATION | |
|--|---|
| Acute Toxicity Product Information: | Causes skin, eye, and respiratory tract irritation. |
| Chronic Toxicity Chronic Toxicity: | No known effect based on information supplied. |
| Target Organ Effects: | Mucous Membrane, Upper respiratory tract. |
| 12. ECOLOGICAL INFORMATION | |
| Ecotoxicity: | The environmental impact of this product has not been fully investigated. |
| 13. DISPOSAL CONSIDERATIONS | |
| Water Disposal Method: | Dispose of material in accordance with all federal, state, and local regulations. |

Contaminated Packaging: Dispose of in accordance with all federal, state, and local regulations.

14. TRANSPORT INFORMATION

IATA

Not regulated <u>US DOT</u> Not regulated

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15. TOXICOLOGICAL INFORMATION

REACH Title VII Restrictions

Chemical Name: Dangerous Substances: Organic Solvents: Harmful Substances Whose Names are to be indicated on the Label: Pollution Release and Transfer Registry (Class II): Pollution Release and Transfer Registry (Class I): Poison and Deleterious Substances Control Law: ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying: ISHA – Harmful Substances Requiring Permission: Toxic Chemical Classification Listing (TCCL): Toxic Release Inventory (TRI) – Group I: Toxic Release Inventory (TRI) – Group II: No information available 4-Morpholinepropanesulfonic acid - #1132-61-2 Not applicable Not applicable

International Inventories

| TSCA: | Complies |
|----------------|-----------------|
| EINECS/ELINCS: | Complies |
| ENCS: | Does not comply |
| IECSC: | Complies |
| KECL | Does not comply |
| PICCS | Does not comply |
| AICS | Complies |

U.S. Federal Regulations SARA 313

Section 313 of Title III of the superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical/chemicals which are subject to the reporting requirements of the Act & Title 40 of the Code of Federal Regulations, part 372.

| SARA 311/312 Hazard Categor | ies | |
|--|--|--|
| Acute Health Hazard | Yes | |
| Chronic Health Hazard | No | |
| Fire Hazard | No | |
| Sudden Release of Pressure H | lazard No | |
| Reactive Hazard | No | |
| Clean Water Act | This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42). | |
| Clean Air Act | Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61). This product contains the following substances which are listed hazardous air pollutants (HAPs) under Section 112 of the Clean Air Act. | |
| CERCLA | | |
| <u>U.S. State Regulations</u> California Proposition 65 | This product does not contain any Proposition 65 chemicals. | |
| <u>International Regulations</u> Mexico | No information available | |
| Canada | No information available | |

WHMIS Hazard Class

D2B – Toxic materials



| 16. OTHER INFORMATION | |
|----------------------------------|--|
| Issuing Date: | 23-Dec-1997 |
| Revision Date: | 20-Dec-2011 |
| Revision Note: | Update to GHS Standard |
| Recommended Restrictions: | No information available |
| Disclaimer: | The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal, and release; and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the test. |

End of MSDS