

# Safety Data Sheet

## Maneval's Modified Stain

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1 Product Description

**Product Name:** Maneval's Modified Stain  
**Recommended Use:** Science education applications  
**Synonyms:** Maneval's Stain, Modified  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

#### WARNING



Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

#### GHS Classification:

Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 2, Hazardous to the aquatic environment - Acute Category 2, Hazardous to the aquatic environment - Chronic Category 2, Acute Toxicity - Oral Category 4

|                                                     |                                                                    |
|-----------------------------------------------------|--------------------------------------------------------------------|
| <b>Acute Toxicity Dermal Contains</b>               | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Vapor Contains</b>     | 100 % of the mixture consists of ingredient(s) of unknown toxicity |
| <b>Acute Toxicity Inhalation Dust/Mist Contains</b> | 100 % of the mixture consists of ingredient(s) of unknown toxicity |

### Section 3 Composition / Information on Ingredients

| <u>Chemical Name</u>           | <u>CAS #</u> | <u>%</u> |
|--------------------------------|--------------|----------|
| Iron (III) Chloride, 6-Hydrate | 10025-77-1   | 99       |
| Phenol                         | 108-95-2     | 0        |
| Water                          | 7732-18-5    | 0        |

### Section 4 First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.  
**Skin Contact:** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.  
**Ingestion:** IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.

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|                                              |                                                                                                           |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| <b>Fire Fighting Methods and Protection:</b> | Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus. |
| <b>Fire and/or Explosion Hazards:</b>        | Fire or excessive heat may produce hazardous decomposition products.                                      |
| <b>Hazardous Combustion Products:</b>        | Carbon dioxide, Carbon monoxide                                                                           |

## Section 6 Spill or Leak Procedures

|                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Steps to Take in Case Material Is Released or Spilled:</b> | Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.<br>Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Collect spillage. |
|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Section 7 Handling and Storage

|                      |                                                                                                                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling:</b>     | Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. |
| <b>Storage:</b>      | Keep container tightly closed in a cool, well-ventilated place.                                                                                                                                  |
| <b>Storage Code:</b> | Green - general chemical storage                                                                                                                                                                 |

## Section 8 Protection Information

| <u>Chemical Name</u>           | <u>ACGIH</u>                    |               | <u>OSHA PEL</u>                     |               |
|--------------------------------|---------------------------------|---------------|-------------------------------------|---------------|
|                                | <u>(TWA)</u>                    | <u>(STEL)</u> | <u>(TWA)</u>                        | <u>(STEL)</u> |
| Iron (III) Chloride, 6-Hydrate | 1 mg/m <sup>3</sup> TWA (as Fe) | N/A           | N/A                                 | N/A           |
| Phenol                         | 5 ppm TWA                       | N/A           | 5 ppm TWA; 19 mg/m <sup>3</sup> TWA | N/A           |

|                                             |                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control Parameters</b>                   |                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Engineering Measures:</b>                | Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.                                                                                                                                                                                                                           |
| <b>Personal Protective Equipment (PPE):</b> | Lab coat, apron, eye wash, safety shower.                                                                                                                                                                                                                                                                                                                          |
| <b>Respiratory Protection:</b>              | Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.                                                                                             |
| <b>Eye Protection:</b>                      | Wear chemical splash goggles when handling this product. Have an eye wash station available.                                                                                                                                                                                                                                                                       |
| <b>Skin Protection:</b>                     | Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. |
| <b>Gloves:</b>                              | Nitrile, Neoprene, Butyl rubber                                                                                                                                                                                                                                                                                                                                    |

## Section 9 Physical Data

|                                                   |                                                      |
|---------------------------------------------------|------------------------------------------------------|
| <b>Formula:</b> N/A                               | <b>Vapor Pressure:</b> No data available             |
| <b>Molecular Weight:</b> No data available        | <b>Evaporation Rate (BuAc=1):</b> No data available  |
| <b>Appearance:</b> Purple Liquid                  | <b>Vapor Density (Air=1):</b> No data available      |
| <b>Odor:</b> Mild Vinegar                         | <b>Specific Gravity:</b> No data available           |
| <b>Odor Threshold:</b> No data available          | <b>Solubility in Water:</b> Soluble                  |
| <b>pH:</b> No data available                      | <b>Log Pow (calculated):</b> No data available       |
| <b>Melting Point:</b> 37 C                        | <b>Autoignition Temperature:</b> No data available   |
| <b>Boiling Point:</b> No data available           | <b>Decomposition Temperature:</b> No data available  |
| <b>Flash Point:</b> No data available             | <b>Viscosity:</b> No data available                  |
| <b>Flammable Limits in Air:</b> No data available | <b>Percent Volatile by Volume:</b> No data available |

## Section 10 Reactivity Data

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|                                  |                                                 |
|----------------------------------|-------------------------------------------------|
| <b>Reactivity:</b>               | Not generally reactive under normal conditions. |
| <b>Chemical Stability:</b>       | Stable under normal conditions.                 |
| <b>Conditions to Avoid:</b>      | No data available.                              |
| <b>Incompatible Materials:</b>   | Caustics (bases)                                |
| <b>Hazardous Polymerization:</b> | Will not occur                                  |

## Section 11 Toxicity Data

|                          |                                                                          |
|--------------------------|--------------------------------------------------------------------------|
| <b>Routes of Entry</b>   | Inhalation, Ingestion, and Skin contact.                                 |
| <b>Symptoms (Acute):</b> | Allergies, Tachycardia, Hypoxemia (low blood oxygen), Metabolic Acidosis |
| <b>Delayed Effects:</b>  | No data available                                                        |

### Acute Toxicity:

| Chemical Name                  | CAS Number | Oral LD50                 | Dermal LD50                     | Inhalation LC50               |
|--------------------------------|------------|---------------------------|---------------------------------|-------------------------------|
| Iron (III) Chloride, 6-Hydrate | 10025-77-1 | Oral LD50 Rat 317 mg/kg   | Dermal LD50 Rabbit > 2000 mg/kg |                               |
| Phenol                         | 108-95-2   | Oral LD50 Rat 512 mg/kg   | Dermal LD50 Rabbit 630 mg/kg    | INHALATION LC50 Rat 316 MG/M3 |
| Water                          | 7732-18-5  | Oral LD50 Rat 90000 mg/kg |                                 |                               |

### Carcinogenicity:

| Chemical Name | CAS Number | IARC       | NTP        | OSHA       |
|---------------|------------|------------|------------|------------|
| Phenol        | 108-95-2   | Not listed | Not listed | Not listed |

### Chronic Effects:

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| <b>Mutagenicity:</b>         | No evidence of a mutagenic effect.                                         |
| <b>Teratogenicity:</b>       | No evidence of a teratogenic effect (birth defect).                        |
| <b>Sensitization:</b>        | No evidence of a sensitization effect.                                     |
| <b>Reproductive:</b>         | No evidence of negative reproductive effects.                              |
| <b>Target Organ Effects:</b> |                                                                            |
| <b>Acute:</b>                | Skin, Blood, Cardiovascular system, Kidneys, Central Nervous System, Lungs |
| <b>Chronic:</b>              | Blood, Liver                                                               |

## Section 12 Ecological Data

|                               |                                                             |
|-------------------------------|-------------------------------------------------------------|
| <b>Overview:</b>              | This material is not expected to be harmful to the ecology. |
| <b>Mobility:</b>              | No data                                                     |
| <b>Persistence:</b>           | Dissolved into water, Photodegradation, Biodegradation      |
| <b>Bioaccumulation:</b>       | No data                                                     |
| <b>Degradability:</b>         | No data                                                     |
| <b>Other Adverse Effects:</b> | No data                                                     |

| Chemical Name                  | CAS Number | Eco Toxicity                                                                                                                                                                                                                                                                              |
|--------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Iron (III) Chloride, 6-Hydrate | 10025-77-1 | Aquatic LC50 (96h) Fathead Minnow 21.84 MG/L<br>Aquatic EC50 (48h) Daphnia 9.6 MG/L                                                                                                                                                                                                       |
| Phenol                         | 108-95-2   | 96 HR LC50 BRACHYDANIO RERIO 27.8 MG/L<br>96 HR LC50 LEPOMIS MACROCHIRUS 13.5 MG/L [STATIC]<br>96 HR LC50 ONCORHYNCHUS MYKISS 5 - 12 MG/L<br>96 HR LC50 PIMEPHALES PROMELAS 32 MG/L<br>48 HR EC50 DAPHNIA MAGNA 10.2 - 15.5 MG/L<br>96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 46.42 MG/L |
| Water                          | 7732-18-5  | No data available                                                                                                                                                                                                                                                                         |

## Section 13 Disposal Information

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**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

**Waste Disposal Code(s):** Not Determined

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**  
Not regulated for transport by US DOT.

**Air - IATA Proper Shipping Name:**  
Not regulated for air transport by IATA.

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

| Chemical Name                  | CAS Number | § 313 Name | § 304 RQ   | CERCLA RQ                         | § 302 TPQ                            | CAA 112(2) TQ |
|--------------------------------|------------|------------|------------|-----------------------------------|--------------------------------------|---------------|
| Iron (III) Chloride, 6-Hydrate | 10025-77-1 | No         | No         | No                                | No                                   | No            |
| Phenol                         | 108-95-2   | Phenol     | 1000 lb RQ | 1000 lb final RQ; 454 kg final RQ | 500 lb lower TPQ; 10000 lb upper TPQ | No            |

**California Prop 65:**

No California Proposition 65 ingredients

## Section 16

## Additional Information

**Revised: 08/21/2018**

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The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

|        |                                                                       |      |                                               |
|--------|-----------------------------------------------------------------------|------|-----------------------------------------------|
| ACGIH  | American Conference of Governmental Industrial Hygienists             | NTP  | National Toxicology Program                   |
| CAS    | Chemical Abstract Service Number                                      | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL  | Permissible Exposure Limit                    |
| DOT    | U.S. Department of Transportation                                     | ppm  | Parts per million                             |
| IARC   | International Agency for Research on Cancer                           | RCRA | Resource Conservation and Recovery Act        |
| N/A    | Not Available                                                         | SARA | Superfund Amendments and Reauthorization Act  |
|        |                                                                       | TLV  | Threshold Limit Value                         |
|        |                                                                       | TSCA | Toxic Substances Control Act                  |
|        |                                                                       | IDLH | Immediately dangerous to life and health      |