Safety Data Sheet
Monsel’s Solution

1. Identification
   **Product name:** Monsel’s Solution
   **Product Use:** Styptic agent used after minor surgical procedures, such as curettage and biopsies, to achieve hemostasis.
   **Restrictions:** Hypersensitivity to iron
   **Contact:**
   Premier Dental Products Company
   1710 Romano Drive
   Plymouth Meeting, PA 19462
   Phone: 610-239-6000   Fax: 610-239-6171
   Emergency Phone: 610-239-6000

2. Hazard(s) Identification
   **Classification of the substance or mixture**

   ![Health hazard]
   May cause damage to organs

   ![Caution]
   Causes skin irritation
   Causes serious eye irritation

   **Label elements**
   **GHS label elements**
   The product is classified and labeled according to the Globally Harmonized System (GHS).

   **Hazard pictograms**
   ![Warning]

   **Signal word** Warning

   **Hazard-determining components of labeling:**
   Ferric Subsulfate Hydrate

   **Hazard statements**
   Causes skin irritation
   Causes serious eye irritation
   May cause damage to organs

   **Precautionary statements**
   Do not breathe dust/fume/gas/mist/vapors/spray.
   Wear protective gloves/protective clothing/eye protection/face protection.
   Wash thoroughly after handling.
   Do not eat, drink or smoke when using this product.
   IF IN EYES: Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes. Continue rinsing.
   Take off contaminated clothing and wash before reuse.
   If skin irritation occurs: Get medical advice/attention.
   If eye irritation persists: Get medical advice/attention.
   IF ON SKIN: Wash with plenty of water.
   Store locked up.
   Dispose of contents/container in accordance with local/regional/national/international regulations.
Classification system:
NFPA ratings (scale 0 - 4)
Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)
Health = 1
Fire = 0
Reactivity = 0

3. Composition/information on ingredients
Chemical characterization: Mixtures
Description: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Description</th>
<th>GHS-US Classification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15244-10-7</td>
<td>Thickeners</td>
<td></td>
<td>30-50%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water, distilled, conductivity or of similar purity</td>
<td></td>
<td>25-50%</td>
</tr>
<tr>
<td>1310-45-8</td>
<td>Ferric Subsulfate Hydrate</td>
<td>STOT SE 2, H371 Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit.2, H315 Eye Irrit. 2A, H319</td>
<td>20-22%</td>
</tr>
<tr>
<td>532-32-1</td>
<td>Sodium benzoate</td>
<td>Eye Irrit.2, H319</td>
<td></td>
</tr>
</tbody>
</table>

Additional information:
Trade Secret/Proprietary made in accordance with paragraph (i) of 1910.1200 of 29 CF 1910.1200, the OSHA Communication Standard

4. First-aid Measures
Description of first-aid measures
General information:
Symptoms of poisoning even may occur after several hours; therefore, medical observation for at least 48 hours after the accident

After inhalation:
If having difficulty breathing, contact emergency personnel immediately.
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness, place patient securely on side position for transportation.

After skin contact: Remove contaminated clothing. Wash clothing before reuse. Immediately wash with water and soap and rinse thoroughly. If irritation occurs, consult a doctor.

After eye contact:
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes.
Rinse opened eye for several minutes under running water. Seek medical treatment.

After swallowing:
Do not induce vomiting and call for medical help.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed
No further relevant information available.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

5. Fire-Fighting Measures
Extinguishing media
Suitable extinguishing agents:
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol-resistant foam.
Special hazards arising from the substance or mixture:
No further relevant information available.

Advice for firefighters

Protective equipment:
Full protective clothing and self-contained breathing apparatus should be worn.
Mouth respiratory protective device.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:
Not required.

Environmental precautions:
No special measures required.

Methods and material for containment and cleaning up:
Absorb with liquid-binding material (i.e., sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.

Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and Storage

Precautions for safe handling
Keep away from heat and direct sunlight.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

Information about protection against explosions and fires:
No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:
Requirements to be met by storerooms and receptacles:
Do not store in aluminum, carbon steel, copper, copper alloys, fiberglass, brass, zinc, nickel or galvanized containers.

Information about storage in one common storage facility:
Not required

Further information about storage conditions:
Use amber glass or PET for suitable containers. Do not store in metal containers.
Keep receptacle tightly sealed.

Specific end-use(s)
No further relevant information available.

8. Exposure Controls/Personal Protection

Additional information about design of technical systems:
No further data; see section 7.

Control parameters

Components with occupational exposure limits:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Personal protective equipment:

General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment: Not required

Protection of hands:
Protective gloves

The glove material has to be impermeable and resistant to the product/the substance/the preparation.
Due to missing tests, no recommendation to the glove material can be given for the product/the preparation/the chemical mixture. Select glove material based on penetration times, rates of diffusion and degradation.

Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has, therefore, to be checked prior to the application.

Penetration time of glove material
The exact break-through time has to be determined and observed by the manufacturer of the protective gloves.

Eye protection:
Have a safety shower and eyewash fountain readily available in the immediate work area.
Tightly sealed protective goggles

Body protection: Protective work clothing or apron.

9. Physical and Chemical Properties
Information on basic physical and chemical properties
General Information
Appearance:
Form: Viscous
Color: Orange to light brown
Odor: Light metallic/acidic
Odor threshold: Not determined
pH-value @ 20 °C (68 °F): 2.3

Change in condition
Melting point/Melting range: Not determined
Boiling point/Boiling range: 100 °C (212 °F)
Flash point: Not applicable
Flammability (solid, gaseous): Not applicable

Ignition temperature:
Decomposition temperature: Not determined
Auto igniting: Product is not self-igniting.
Danger of explosion: Product does not present an explosion hazard.

Explosion limits:
Lower: 0.0 Vol %
Upper: 0.0 Vol %

Vapor pressure @ 20 °C (68 °F): 23 hPa (17 mm Hg)
Relative density Not determined
Vapour density Not determined
Evaporation rate Not determined

Solubility in / Miscibility with water: Not miscible or difficult to mix
Partition coefficient (n-octanol/water): Not determined
Viscosity:
Dynamic: Not determined
Kinematic: Not determined

Solvent content:
Organic solvents: 0.0 %
Water: 38.9 %
VOC content: 38.9 %
Other information No further relevant information available.
10. Stability and Reactivity
   Reactivity: No further relevant information available.
   Chemical stability: Product is stable under normal conditions.
   Thermal decomposition/conditions to be avoided: No decomposition if used according to specifications.
   Possibility of hazardous reactions: No dangerous reactions known.
   Conditions to avoid: Avoid heating the product or mixing with acid/alkalies and detergents
   Incompatible materials: Strong oxidizing agents, reducing agents and alcohols (aliphatic or aromatic)
   Hazardous decomposition products: No dangerous decomposition products known.

11. Toxicological Information
   Information on toxicological effects
   Acute toxicity:
   Primary irritant effect:
   on the skin: Irritant to skin and mucous membranes
   on the eye: Irritating effect
   Additional toxicological information:
      The product shows the following dangers according to internally approved calculation methods for preparations:
      Harmful
      Irritant
   Carcinogenic categories
   IARC (International Agency for Research on Cancer)
      None of the ingredients is listed.
   NTP (National Toxicology Program)
      None of the ingredients is listed.
   OSHA-Ca (Occupational Safety & Health Administration)
      None of the ingredients is listed.

12. Ecological Information
   Toxicity
   Aquatic toxicity: No further relevant information available.
   Persistence and degradability No further relevant information available.
   Bioaccumulative potential No further relevant information available.
   Mobility in soil No further relevant information available.
   Additional ecological information:
   General notes: Generally not hazardous for water
   Results of PBT and vPvB assessment
   PBT: Not applicable
   vPvB: Not applicable
   Other adverse effects: No further relevant information available.

13. Disposal Considerations:
   Waste disposal methods
   Recommendation:
      Observe all federal, state and local environmental regulations when disposing of this material.
      Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
   Uncleaned packaging:
      Recommendation: Disposal must be made according to official regulations.

14. Transport Information:
   UN-Number
   DOT, ADR, ADN, IMDG, IATA Non-Regulated Material
   UN proper shipping name
   DOT, ADR, ADN, IMDG, IATA Non-Regulated Material
   Transport hazard class(es)
   DOT, ADR, ADN, IMDG, IATA Non-Regulated Material
   Class
   Packing group
DOT, ADR, IMDG, IATA Non-Regulated Material
Environmental hazards:
Marine pollutant: No
Special precautions for user Not applicable
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code Not applicable
UN "Model Regulation": -

15. Regulatory Information:
Safety, health and environmental regulations/legislation specific for the substance or mixture
Section 355 (extremely hazardous substances):
None of the ingredients is listed.
Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.
TSCA (Toxic Substances Control Act):
1310-45-8 Ferric Subsulfate Hydrate
532-32-1 sodium benzoate
7732-18-5 water, distilled, conductivity or of similar purity

Proposition 65
Chemicals known to cause cancer:
None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
Carcinogenic categories
EPA (Environmental Protection Agency)
None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.
GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).
Hazard pictograms

GHS07 GHS08

Signal word: Warning

Hazard-determining components of labeling:
Ferric Subsulfate Hydrate

Hazard statements
Causes skin irritation.
Causes serious eye irritation.
May cause damage to organs.

Precautionary statements
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Take off contaminated clothing and wash before reuse.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

State Right to Known

<table>
<thead>
<tr>
<th>CAS No:</th>
<th>Description</th>
<th>GHS-US Classification</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>15244-10-7</td>
<td>Thickeners</td>
<td></td>
<td>30-50%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water, distilled, conductivity or of similar purity</td>
<td>STOT SE 2, H371</td>
<td>25-50%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4, H302</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 6, H312</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4, H332</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
<td></td>
</tr>
<tr>
<td>1310-45-8</td>
<td>Ferric Subsulfate Hydrate</td>
<td>STOT SE 2, H371</td>
<td>20-22%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4, H302</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 6, H312</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Acute Tox. 4, H332</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skin Irrit. 2, H315</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eye Irrit. 2A, H319</td>
<td></td>
</tr>
<tr>
<td>532-32-1</td>
<td>Sodium benzoate</td>
<td>Eye Irrit. 2, H319</td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are listed.
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other Information

Premier’s revision date: 22 June 2020
Revision Number: 8

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
DOT: U.S. Department of Transportation
IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
STOT SE 2: Specific target organ toxicity - Single exposure, Hazard Category 2
Revision Summary: Replaces Rev6 issued 5-Nov-2015

The information contained herein is based on our present knowledge. However, this information shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Premier Dental Products Company makes no warranties, express or implied with respect to, and assumes no responsibility or liability for, the accuracy or completeness of the information contained herein. Premier Dental Products Company urges persons receiving this information to make their own determination as to the information suitability for their particular application.