Dear Educator,

This file contains the Safety Data Sheets (SDS) for FOSS DIVERSITY OF LIFE, 2nd EDITION as of July 24, 2017.

Because kit contents can sometimes be replaced, we recommend searching our online portal of SDS for current sheets as you need them. To make that searching easier, we have provided a listing below of the items with SDS in this kit.

Portal: http://www.schoolspecialty.com/sds

<table>
<thead>
<tr>
<th>Part Number to Search</th>
<th>Item Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>020-5457</td>
<td>Brine shrimp eggs</td>
</tr>
<tr>
<td>033-8075</td>
<td>Camphor crystal block</td>
</tr>
<tr>
<td>192-8189</td>
<td>Congo red stain, 10 g/container</td>
</tr>
<tr>
<td>030-5788</td>
<td>Food coloring, red</td>
</tr>
<tr>
<td>077399</td>
<td>Marking pens, permanent</td>
</tr>
<tr>
<td>130-1706</td>
<td>Methyl cellulose, 1.5%, 2 oz.</td>
</tr>
<tr>
<td>131-0484</td>
<td>Methylene blue, 0.1%, 250 mL</td>
</tr>
<tr>
<td>1510932</td>
<td>Nutrient agar, 125 mL</td>
</tr>
<tr>
<td>1320498</td>
<td>Polyacrylate crystals, 2 oz./pkg.</td>
</tr>
<tr>
<td>191-1117</td>
<td>Salt, kosher</td>
</tr>
</tbody>
</table>

Note: The part numbers to search for in the portal are often not the same part numbers used to order replacements. To order replacements, please visit www.deltaeducation.com/refillcenter

If you have any questions, please contact Customer Care at 800-258-1302 for assistance.
Ocean Star International, Inc.
65 NORTH STONE ROAD
P.O. BOX 643
SNOWVILLE, UT 84336

Ocean Star International, Inc.
Safety Data Sheet (SDS)

Brine Shrimp Eggs (*Artemia franciscana* Cysts)

**Section 1 – Chemical Product and Company Identification**

Brine Shrimp Eggs (*Artemia franciscana* Cysts)
Ocean Star International, Inc.
65 North Stone Rd.
Snowville UT 84336
Emergency Number: 800-423-3447

Signal Word: N/A

**Section 2 – Hazards Identification**

This product is considered to be nonhazardous according to GHS classification for the Hazard Communication Standard. Treat all laboratory products with caution. Although this material is considered to be nonhazardous, unpredictable reaction among chemicals are always possible. Prudent laboratory practices should be observed.

**Section 3 – Composition, Information on Ingredients**

Component Name: Brine shrimp eggs, species: *Artemia franciscana*
CAS Number: None established

Formula: Unspecified
Formula Weight: Unspecified

**Section 4 – First Aid Measures**

Call a POISON CENTER or physician if you feel unwell.
If Inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
If in Eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
If on skin: Wash with plenty of water.
If swallowed: Rinse mouth. Call a POISON CENTER or physician if you feel unwell.

**Section 5 – Fire Fighting Measures**

Nonflammable solid
When heated to decomposition, may emit toxic fumes
In case of fire: Use a tri-class dry chemical fire extinguisher
NFPA Code: None established

**Section 6 – Accidental Release Measures**

Use a damp paper towel to pick up the product, place in a sealed bag or container, and dispose. Wash spill site after material pickup is complete. See Section 8 and 13 for further information.

**Section 7 – Handling and Storage**

Organic Miscellaneous – Store in a Cool Dry place. A frost free refrigerator or freezer is best.

**Section 8 – Exposure Controls, Personal Protection**

Wear eye protection. Wash hands thoroughly after handling.
Section 9 – Physical and Chemical Properties

Brown powder, Odorless
Culture in brackish water at no more than 36 g/L
Biological use: brine shrimp eggs

Section 10 – Stability and Reactivity

Shelf Life: Good, if kept dry and cool.

Section 11 – Toxicological Information

| Acute effects: | N.A. | ORL-RAT LD sub 50: | N.A. |
| Chronic effects: | N.A. | IHL-RAT LC sub 50: | N.A. |
| Target organs: | N.A. | SKN-RBT LD sub 50: | N.A. |

N.A. = Not available, not all health aspect of this substance have been fully investigated.

Section 12 – Ecological Information

Brine shrimp eggs (cysts) are a natural, living product produced in the Great Salt Lake, Utah as an “over-wintering” stage. They naturally hatch in the Spring of each year to re-establish the population in the Great Salt Lake, Utah.

Section 13 – Disposal Considerations

Please review all federal, state and local regulations that may apply before proceeding. Ocean Star International, Inc. recommends you use dispose in non-recycle garbage.

Section 14 – Transport Information

Shipping Name: Not regulated. Hazard class: N/A UN number: N/A

N/A = Not applicable

Section 15 – Regulatory Information

Not Listed.

Section 16 – Other Information

This Safety Data Sheet (SDS) is for guidance and is based upon information and tests believed to be reliable. Ocean Star International, Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages, relating hereto. The data are offered solely for your consideration, investigation and verification. The data should not be confused with local, state, federal or insurance mandates, regulation, or requirements and CONSTITUTE NO WARRANTY. Any use of these data and information must be determined by the science instructor or other person in charge to be in accordance with applicable local, state or federal laws and regulations. The conditions or methods of handling, storage, use, and disposal of the product(s) described here are beyond the control of Ocean Star International, Inc. and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSSES, DAMAGES OR EXPENSES ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE, OR DISPOSAL OF THIS PRODUCT(S).

Date: 6/15/15
NAME: CAMPHOR GUM BLOCKS  

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Camphor Gum Blocks  
Synonyms: Gum Camphor, 2-Camphanone, (DL) Camphor  
Recommended Use: Rust inhibitor.

Manufacturer by: Humco Holding Group, Inc.  
7400 Alumax Dr  
Texarkana TX  75501   USA  
800-662-3435  
cs@humco.com  
www.humco.com

24-Hour Emergency Number (CHEMTREC)  
USA- 800-424-9300  
International – 703-527-3887

All non-emergency calls should be directed to Customer Service at 800-662-3435

2. HAZARD IDENTIFICATION

Pictogram:  

<table>
<thead>
<tr>
<th>Classification:</th>
<th>Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signal Word:</td>
<td>Warning</td>
</tr>
<tr>
<td>Hazard Statements:</td>
<td>Harmful if swallowed. May be harmful in contact with skin. May be harmful if inhaled</td>
</tr>
</tbody>
</table>

3. COMPOSITION / INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAMPHOR (DL)</td>
<td>76-22-2</td>
</tr>
</tbody>
</table>
The exact percentage has been withheld as a trade secret

4. FIRST-AID MEASURES

<table>
<thead>
<tr>
<th>ROUTE</th>
<th>COMMON SYMPTOMS</th>
<th>FIRST AID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Dizziness, trouble breathing</td>
<td>Remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Vomiting, cramps, diarrheah</td>
<td>Call a Physician. If conscious, give large amounts of water. Induce vomiting.</td>
</tr>
<tr>
<td>Skin</td>
<td>Dermal irritation</td>
<td>If irritation occurs, wash with soap and water. If irritation persists, get medical attention.</td>
</tr>
<tr>
<td>Eyes</td>
<td>Irritation</td>
<td>Immediately flush eyes with water for at least 15 minutes while holding eyelids open. If symptoms persist, get medical attention.</td>
</tr>
</tbody>
</table>

5. FIRE-FIGHTING MEASURES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Auto Ignition:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Use alcohol foam, dry chemical or CO2 (water may be ineffective)</td>
</tr>
<tr>
<td>Products of Combustion:</td>
<td>Upon combustion this product may emit carbon dioxide, carbon monoxide and/or low molecular weight hydrocarbons.</td>
</tr>
<tr>
<td>Fire Fighting Equipment and Procedures:</td>
<td>Wear protective clothing and equipment suitable for the surrounding fire, including helmet, facemask, and self-contained breathing apparatus.</td>
</tr>
</tbody>
</table>

6. ACCIDENTAL RELEASE MEASURES

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Precautions:</td>
<td>Read entire label before using and follow all label directions.</td>
</tr>
<tr>
<td>Environmental Precautions:</td>
<td>Prevent discharge to open waters.</td>
</tr>
<tr>
<td>Method of Containment:</td>
<td>Wear self-contained breathing apparatus and full protective clothing. Shut off ignition sources; no flares, smoking, or flames in area.</td>
</tr>
<tr>
<td>Method for Clean-Up:</td>
<td>Ventilate area of spill. Sweep or scrap up and containerize in approved chemical waste container. Wash spill area with water.</td>
</tr>
</tbody>
</table>

7. HANDLING AND STORAGE
### Handling:
Do not take internally. Do not consume food, drink or smoke while handling this product.

### Storage:
Keep from extreme heat.

---

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

<table>
<thead>
<tr>
<th>Engineering Controls:</th>
<th>Normal room ventilation is usually adequate under normal use.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personal Protective Equipment (PPE)</strong></td>
<td></td>
</tr>
<tr>
<td>Eye/Face Protection:</td>
<td>None needed under normal use.</td>
</tr>
<tr>
<td>Skin Protection:</td>
<td>Wear gloves when handling.</td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>None needed under normal use.</td>
</tr>
<tr>
<td>General Hygiene Considerations:</td>
<td>Wash hands after use.</td>
</tr>
</tbody>
</table>

---

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th><strong>Appearance:</strong></th>
<th>Semi-translucent white solid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Odor:</strong></td>
<td>Camphor</td>
</tr>
<tr>
<td><strong>Odor Threshold:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>pH:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Melting point /Freezing Point:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Boiling point/range:</strong></td>
<td>207°C (404°F)</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>65°C (150°F)</td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
<td>&lt; 1</td>
</tr>
<tr>
<td><strong>Flammability:</strong></td>
<td>Not flammable</td>
</tr>
</tbody>
</table>

| **Upper/Lower Flammability:** | Not determined |
| **Vapor Pressure:** | 0.18 mmHg |
| **Vapor Density:** | 5.2 |
| **Relative Density:** | 0.99 |
| **Solubilities:** | Slightly soluble in water. |
| **Partition coefficient:** | n-octanol/water: |
| **Auto-ignition temperature:** | 465°C (871°F) |
| **Decomposition Temperature:** | Not determined |

---

**10. STABILITY AND RACTIVITY**

<table>
<thead>
<tr>
<th><strong>Reactivity:</strong></th>
<th>Not reactive</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chemical Stability:</strong></td>
<td>Stable under normal ambient temperatures (70°F)</td>
</tr>
<tr>
<td><strong>Possibility of Hazardous reactions:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Conditions to Avoid:</strong></td>
<td>Extreme heat</td>
</tr>
<tr>
<td><strong>Incompatible materials:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Hazardous Decomposition Products:</strong></td>
<td>Not determined</td>
</tr>
</tbody>
</table>

---

**11. TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th><strong>Acute toxicity:</strong></th>
<th>Not determined.</th>
</tr>
</thead>
</table>
12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Trait</th>
<th>Not determined.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute or chronic aquatic toxicity</td>
<td></td>
</tr>
<tr>
<td>Chemical degradation</td>
<td></td>
</tr>
<tr>
<td>Biodegradation</td>
<td></td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td></td>
</tr>
<tr>
<td>Adsorption studies or leaching studies</td>
<td></td>
</tr>
<tr>
<td>Other adverse effects</td>
<td></td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state and local laws and regulations. Avoid release into environment.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Trait</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT Hazard Classification</td>
<td>Non-Hazardous</td>
</tr>
<tr>
<td>UN number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Packing group number</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Special precautions</td>
<td>Avoid extreme heat, flame, other sources of ignition, sunlight.</td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

The information in this SDS is considered current and reliable. However, the data is provided without any warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions for use, handling, storage and disposal are beyond Humco’s control, it is the responsibility of the user to determine safe conditions for use and to assume liability for loss, damage, or expenses arising from improper use. No warranty expressed or implied regarding the product described herein will be created by or inferred from any statement or omission. Various agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be reflected in the SDS. The user should review these regulations to ensure full compliance.
1 Identification

- **Product identifier**
  - Trade name: Congo Red Biological Stain (C.I. 22120)
  - Article number: 192-8189
  - CAS Number: 573-58-0
  - EC number: 209-358-4
  - Index number: 611-027-00-8

- **Details of the supplier of the safety data sheet**
  - Manufacturer/Supplier:
    Aqua Solutions, Inc.
    6913 Highway 225
    DEER PARK, TX 77536
    USA
    800-256-2586

- **Information department:**
  - Product safety department
  - Technical Coordinator
    Sherman Nelson sherman@aquasolutions.org

- **Emergency telephone number:**
  - Chemtrec: 800-424-9300
  - Canutec: 613-996-6666

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS08 Health hazard

  Carc. 1B H350 May cause cancer.
  Repr. 2 H361 Suspected of damaging fertility or the unborn child.

- **Label elements**
  - GHS label elements: The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms

  - GHS08

- **Signal word** Danger

- **Hazard statements**
  - May cause cancer.
  - Suspected of damaging fertility or the unborn child.

- **Precautionary statements**
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - IF exposed or concerned: Get medical advice/attention.
  - Store locked up.

(Contd. on page 2)
Safety Data Sheet
acc. to OSHA HCS

Trade name: Congo Red Biological Stain (C.I. 22120)

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)

  Health = 2
  Fire = 1
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)

  HEALTH Health = 2
  FIRE Fire = 1
  REACTIVITY Reactivity = 0

· Other hazards
  · Results of PBT and vPvB assessment
    · PBT: Not applicable.
    · vPvB: Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Substances
· CAS No. Description
  573-58-0 Congo Red (Direct Red 28), C.I. 22120
· Identification number(s)
  · EC number: 209-358-4
  · Index number: 611-027-00-8

· SVHC
  573-58-0 Congo Red (Direct Red 28), C.I. 22120

4 First-aid measures

· Description of first aid measures
  · After inhalation: Supply fresh air; consult doctor in case of complaints.
  · After skin contact: Generally the product does not irritate the skin.
  · After eye contact: Rinse opened eye for several minutes under running water.
  · After swallowing: If symptoms persist consult doctor.
  · Most important symptoms and effects, both acute and delayed No further relevant information available.

4 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: No special measures required.

(Contd. on page 3)
6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Dispose contaminated material as waste according to item 13.
- 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: Open and handle receptacle with care.
- Information about protection against explosions and fires:
  Keep respiratory protective device available.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met bystorerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
- 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 item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- 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.
    Store protective clothing separately.
  - Breathing equipment:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
  - 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. Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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.
- **Penetration time of glove material**
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**
  Tightly sealed goggles

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### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
  - **General Information**
  
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance:</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Red-brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value:</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Product is not flammable.</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Danger of explosion:</strong></td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td><strong>Explosion limits:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Vapor pressure:</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Density:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td></td>
</tr>
<tr>
<td>Dynamic</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Kinematic</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

(Contd. on page 5)
10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

| LD/LC50 values that are relevant for classification: |
|---|---|
| Oral LD50 15200 mg/kg (rat) |

- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
- Carcinogenic categories
- IARC (International Agency for Research on Cancer) Substance is not listed.
- NTP (National Toxicology Program)
  573-58-0 Congo Red (Direct Red 28), C.I. 22120 K
- OSHA-Ca (Occupational Safety & Health Administration) Substance is not 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:
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- Results of PBT and vPvB assessment
  PBT: Not applicable.
  vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

USA
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADN, IMDG, IATA: Not regulated

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: Not regulated

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA
    - Class: Not regulated

- Packing group
  - DOT, IMDG, IATA: Not regulated

- 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.

- Transport/Additional information:
  - DOT
    - Remarks: Not regulated
  - IMDG
    - Remarks: Not regulated
  - IATA
    - Remarks: Not regulated
  - UN "Model Regulation": Not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
  - Section 355 (extremely hazardous substances): Substance is not listed.
  - Section 313 (Specific toxic chemical listings): Substance is not listed.
  - TSCA (Toxic Substances Control Act): Substance is listed.
  - Proposition 65
  - Chemicals known to cause cancer: Substance is not listed.
  - Chemicals known to cause reproductive toxicity for females: Substance is not listed.
  - Chemicals known to cause reproductive toxicity for males: Substance is not listed.
Trade name: Congo Red Biological Stain (C.I. 22120)

- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Carcinogenic categories**
  - EPA (Environmental Protection Agency) Substance is not listed.
  - TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
  - NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- **GHS label elements** The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

GHS08

- **Signal word** Danger
- **Hazard statements**
  - May cause cancer.
  - Suspected of damaging fertility or the unborn child.
- **Precautionary statements**
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - Obtain special instructions before use.
  - Do not handle until all safety precautions have been read and understood.
  - IF exposed or concerned: Get medical advice/attention.
  - Store locked up.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **National regulations:**
- **Information about limitation of use:**
  - Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

---

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**
  - Creation date for SDS 08-07-2014. STN
  - 11/17/2014 / -
- **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: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - Carc. 1B: Carcinogenicity, Hazard Category 1B
  - Repr. 2: Reproductive toxicity, Hazard Category 2
1 Identification

- Product identifier
  - Trade name: Red Coloring
  - Article number: 030-5788

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier:
    Aqua Solutions, Inc.
    6913 Highway 225
    DEER PARK, TX 77536
    USA
    800-256-2586

- Information department:
  - Technical Coordinator
    Sherman Nelson sherman@aquasolutions.org
  - Product safety department

- Emergency telephone number:
  - Chemtrec: 800-424-9300
  - Canutec: 613-996-6666

2 Hazard(s) identification

- Classification of the substance or mixture
  - GHS07
  - Acute Tox. 4  H302  Harmful if swallowed.
  - Skin Irrit. 2  H315  Causes skin irritation.
  - Eye Irrit. 2B  H320  Causes eye irritation.

- Label elements
  - GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
  - Hazard pictograms
    - GHS07

- Signal word Warning

- Hazard-determining components of labeling:
  - 1,2-Propanediol (Propylene Glycol)

- Hazard statements
  - Harmful if swallowed.
  - Causes skin and eye irritation.

- Precautionary statements
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  - Continue rinsing.
  - Specific treatment (see on this label).
Trade name: Red Coloring

Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. 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

Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.
- vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

- 57-55-6 1,2-Propanediol (Propylene Glycol) 14.922%

Table of Nonhazardous Ingredients

- 915-67-3 Amaranth Indicator (Acid Red 27), (Red #2) 2.984%
- 94-13-3 propyl 4-hydroxybenzoate 0.1%
- 7732-18-5 Water, Deionized, ASTM Type II 81.994%

4 First-aid measures

- Description of first aid measures
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: If symptoms persist consult doctor.

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: Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture No further relevant information available.
39.0

· Advice for firefighters

· Protective equipment: No special measures required.

6 Accidental release measures

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

· Environmental precautions: Do not allow to enter sewers/surface or ground water.

· Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· 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: No special precautions are necessary if used correctly.

· 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: No special requirements.
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions: None.

· 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 item 7.

· Control parameters

· Components with limit values that require monitoring at the workplace:

  57-55-6 1,2-Propanediol (Propylene Glycol)

    |        | Short-term value: 10 mg/m³
    | TWA    | WEEEL Long-term value: 10 mg/m³

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

· Exposure controls

· Personal protective equipment:

· General protective and hygienic measures: Wash hands before breaks and at the end of work.

· Breathing equipment: Not required.

· Protection of hands:
  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.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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 can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)
**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
  - **General Information**
    - **Appearance:**
      - Form: Liquid
      - Color: Dark red
    - Odor: Mild
    - Odour threshold: Not determined.
  - **pH-value:** Not determined.
  - **Change in condition**
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: 100 °C (212 °F)
  - **Flash point:** 210 °C (410 °F)
  - **Flammability (solid, gaseous):** Not applicable.
  - **Ignition temperature:**
    - Decomposition temperature: Not determined.
  - **Auto igniting:** Product is not selfigniting.
  - **Danger of explosion:** Product does not present an explosion hazard.
  - **Explosion limits:**
    - Lower: Not determined.
    - Upper: Not determined.
  - **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
  - **Density at 20 °C (68 °F):** 1 g/cm³ (8.345 lbs/gal)
  - **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: 82.0 %
  - **Other information**
    - No further relevant information available.
10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    57-55-6 1,2-Propanediol (Propylene Glycol)
    |          | LD50       |      |
    | Oral     | 20,000 mg/kg (rat) |
    | Dermal   | 20,800 mg/kg (rabbit) |
    | Irritation of skin | Skin Corrosion/Irritation (Human) |
    | Irritation of eyes  | Eye damage/eye irritation (rabbit) |
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    - Carcinogenic categories:
      - IARC (International Agency for Research on Cancer)
        915-67-3 Amaranth Indicator (Acid Red 27), (Red #2) 3
      - 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:
    Water hazard class 1 (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.
13 Disposal considerations

- Waste treatment methods
- Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-number
  - DOT, ADN, IMDG, IATA: Not Applicable

- UN proper shipping name
  - DOT, ADN, IMDG, IATA: Not Applicable

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: Not Applicable
  - Class: Not Applicable

- Packing group
  - DOT, IMDG, IATA: Not Applicable

- 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
  - Sara
    - 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):
      - 915-67-3 Amaranth Indicator (Acid Red 27), (Red #2)
      - 94-13-3 propyl 4-hydroxybenzoate
    - Proposition 65
      None of the ingredients is listed.
### Trade name: Red Coloring

- **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](image)

  - **GHS07**

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  - 1,2-Propanediol (Propylene Glycol)

- **Hazard statements**
  - Harmful if swallowed.
  - Causes skin and eye irritation.

- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Wear protective gloves/protective clothing/eye protection/face protection.
  - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Specific treatment (see on this label).
  - Take off contaminated clothing and wash before reuse.
  - If skin irritation occurs: Get medical advice/attention.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision**
  - Creation date for SDS 08/12/2014
  - LS 08/12/2014 / -
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: US 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2B: Serious eye damage/eye irritation, Hazard Category 2B
Section One: Identification
Newell Rubbermaid, Inc. (Sanford L.P.)
2707 Butterfield Road
Oak Brook, IL 60523 USA
800-323-0749 or 630-481-2000
Product Name: Sharpie Fine Point Marker, Sharpie Ultra Fine Point Marker, Sharpie Extra Fine Marker, Sharpie Chisel Tip Marker, Sharpie Twin Tip Marker, Super Sharpie Marker, Super Sharpie Twin Tip Marker, Sharpie Mini Fine Point Marker, Sharpie Micro Marker, Sharpie Grip Marker, Sharpie Retractable Fine Point Marker, Sharpie Magnum Marker, Sharpie King Size Marker, Sharpie Liquid Tip Marker.
Colors: All Colors
Newell Rubbermaid, Inc. (Sanford L.P.) is a member of The Art and Creative Materials Institute, Inc. This product is certified by the Institute to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236 and is labeled with the AP Non Toxic Seal. Products bearing the AP Approved Product Seal of The Art and Creative Materials Institute, Inc. are certified in a program of toxicological evaluation by a medical expert subject to review by the Institute Toxicology Advisory Board, to contain no materials in sufficient quantities to be toxic or injurious to humans, or to cause acute toxicity or chronic health problems.

Section Two: Hazard Identification
Not Hazardous under normal use conditions. Not for use on skin. Do not ingest. Contact with eyes may cause irritation.

Section Three: Composition
Dyes
Pigments
Solvent Mixture: Butanol (71-36-3), Propanol (71-23-8), Diacetone Alcohol (123-42-2), Ethanol (64-17-5)

Section Four: First Aid Measures
Inhalation: Remove source of irritation. If symptoms persist seek medical attention
Skin Contact: Wash with soap and water. If irritation persists seek medical attention.
Eye Contact: Rinse eyes with water, if irritation persists seek medical attention.
Ingestion: If symptoms occur seek medical attention.

Section Five: Fire Fighting Measures
Flash Point: N/A
Extinguishing Media: As appropriate for surrounding area.
Special Fire Fighting Measures: N/A
Hazardous combustion products: N/A

Section Six: Accidental Release Measures
In Case of Spill or Accidental Release: Wipe up with absorbent material.

Section Seven: Handling and Storage
Handling: Do not shake marker.
Storage: Keep cap on marker when not in use.

Section Eight: Exposure Controls and Personal Protection
Eye Protection: None under normal use conditions.
Clothing: None under normal use conditions.
Respirator: None under normal use conditions.

May 04, 2010
Section Nine: Physical and Chemical Properties
- Boiling Point: N/A
- Specific Gravity: N/A
- Vapor Pressure: N/A
- Solubility in Water: N/A
- Evaporation Rate: N/A
- Appearance/Odor: Marker/Alcohol (ink)

Section Ten: Stability and Reactivity
- Stability: N/A
- Conditions to Avoid: Avoid exposure to heat, flame or other sources of ignition.
- Chemical Incompatibility: N/A
- Hazardous Polymerization: N/A

Section Eleven: Toxicological Information
See Section Two: Hazard Identification for any hazards

Section Twelve: Ecological Information
Not available

Section Thirteen: Disposal Considerations
Dispose of in accordance with all Federal, State, and Local Regulations.

Section Fourteen: Transport Information
- DOT: Not available
- IATA: Not available
- IMO: Not available

Section Fifteen: Regulatory Information
United States: All components in this product are listed on or exempt from reporting under the Federal Toxic Substances Control Act (TSCA).

Section Sixteen: Other Information

<table>
<thead>
<tr>
<th>HMIS Code</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>N/A</td>
</tr>
<tr>
<td>Flammability</td>
<td>N/A</td>
</tr>
<tr>
<td>Reactivity</td>
<td>N/A</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>N/A</td>
</tr>
</tbody>
</table>

0=Minimal / 4 = Severe

Newell Rubbermaid, Inc has been advised by Counsel that the OSHA Hazard Communication Standard and the Health Canada Workplace Hazardous Materials Information Standard do not apply to the Sanford Product described in this Material Safety Data Sheet. The reasons for the exemptions are contained in 29 CFR 1910.1200(b)(6)(x) as amended Sept 14, 2009 per the Code of Federal Regulations and also Canadian Hazardous Products Act part 12 section (f) as amended June 1, 2009. The information contained in this MSDS is forwarded to you for your information, but is not meant to imply that the product is covered by nor is this MSDS meant to comply with all requirements of the hazard communication standards.
Hazard Communication Compliance Declaration


An ‘article’ is defined in Section 1910.1200(c) “as a manufactured item other than a fluid or particle:
• Which is formed to a specific shape or design during manufacture;
• Which has end use function(s) dependent in whole or in part on its shape or design during end use; and
• Which, under normal conditions of use, does not release other than very small (minute or trace) amounts of a hazardous chemical and does not pose a physical hazard or health risk to employees.”

The ‘consumer product’ exemption in 29 C.F.R. section 1910.1200(b)(6)(ix) states that:
• Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended.

OSHA has consistently taken the position, in various rulemaking documents and interpretation letters, “most office products (such as pens, pencils, adhesive tape) to be exempt under the provisions of the rule, either as articles or as consumer products.” Markers also fall into these exempted categories. This position is cited currently on OSHA’s website in a letter from OSHA Assistant Secretary John A. Pendergrass to U.S. Congressman Jim Bunning. These examples are cited again in OSHA’s FAQs on the Hazard Communication Standard which further reinforces that Newell-Rubbermaid writing products are exempt from Hazard Communication requirements, specifically GHS Safety Data Sheet documentation.

A non-exhaustive list is provided below of Newell-Rubbermaid writing instruments that qualify as ‘articles’ and ‘consumer products’ that are exempt from GHS Safety Data Sheet requirements:

- Prismacolor Premier Colored Pencils and Sharpeners
- Prismacolor Nupastels and Art Stix and Erasers
- Sharpie Permanent Markers
- Sharpie Pens
- Sharpie Highlighters (Clearview, Accent, etc)
- Paper Mate Pens (InkJoy, FlexGrip, Replay, etc)
- Paper Mate Mechanical Pencils
- Paper Mate Flair Pens
- Paper Mate Pearl Erasers
- Paper Mate Replay Premium Erasable Pens
- Expo Dry Erase Markers
- Expo Whiteboard Cleaner Wipes
- Expo Learning Boards
- Liquid Paper Correction Pens
- Liquid Paper Dryline Correction Tape
- Parker Fountain Pens
- Waterman Fountain Pens
- Rotring Tikky Ballpoint Pens
- Woodcase Pencils (Mongol, Mirado, etc)
- uni-ball pens
1 Identification

- **Product identifier**
  - **Trade name:** Methyl Cellulose
    - 1.5% w/v Solution
  - **Article number:** 130-1706
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Aqua Solutions, Inc.
    - 6913 Highway 225
    - DEER PARK, TX 77536
    - USA
    - 800-236-2586
  - **Information department:**
    - Technical Coordinator
    - Sherman Nelson sherman@aquasolutions.org
  - **Emergency telephone number:**
    - Chemtrec: 800-424-9300
    - Comanet: 613-986-6666

2 Hazard(s) Identification

- **Classification of the substance or mixture**
  - The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
  - GHS label elements: Not Applicable
  - Hazard pictograms: Not Applicable
  - Signal word: Not Applicable
  - Hazard statements: Not Applicable
- **Precautionary statements**
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - If on skin: Wash with plenty of water.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system**
  - **NFPA ratings (scale 0 - 4)**
    - Health = 0
    - Fire = 0
    - Reactivity = 0
  - **HMIS-ratings (scale 0 - 4)**
    - **HEALTH:** Health = 0
    - **FIRE:** Fire = 0
    - **REACTIVITY:** Reactivity = 0
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

[Concl. on page 2]
Trade name: Methyl Celullose 1.5% w/v Solution

- Dangerous components: Not Applicable

<table>
<thead>
<tr>
<th>Table of Nonhazardous Ingredients</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 9004-67-5 Methyl Celullose, 4000 cps</td>
</tr>
<tr>
<td>CAS: 7732-18-5 Water, Deionized, ASTM Type II</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After Inhalation: Supply fresh air; consult doctor in case of complaints.
  - After Skin contact: Generally the product does not irritate the skin.
  - After Eye contact: Rinse opened eye for several minutes under running water.
  - After Swallowing: If symptoms persist, consult doctor.
  - 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: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up: Absorb with liquid binding material (sand, diatomite, acid binders, universal binders, sawdust).
- Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on fire-fighting equipment. See Section 13 for disposal information.

7 Handling and storage

- Precautions for safe handling: No special measures required.
- 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: No special requirements.
  - Information about storage in one common storage facility: Not required.
- Further information about storage conditions: None.
- Specific end use(s) No further relevant information available.

(Contd. on page 3)
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
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:
The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:
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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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 can not 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 found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Liquid
  - Color: Opaque
  - Odor: Odorless
  - Odour threshold: Not determined.
- pH-value at 20 °C (68 °F): 7
- Change in condition
  - Melting point/Melting range: Undetermined
  - Boiling point/Boiling range: < 35 °C (< 95 °F)
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature:
  - Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
Trade name: Methyl Cellulose
1.5% w/v Solution

Upper:
- Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)
- Density at 20 °C (68 °F): 1 g/cm³ (8.345 lb/gal)
- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with Water: Fully miscible.
- Partition coefficient (n-octanol/water): Not determined.
- Viscosity:
  Dynamic: Not determined.
  Kinematic: Not determined.
- Solvent content:
  Organic solvents: 0.0 %
  Water: 98.5 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided by us.
- 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-Ce (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: Not known to be hazardous to 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 treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packaging:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleaning agent: Water, if necessary with cleaning agents.

14 Transport information

- UN-Number
  - DOT, ADN, IMDG, IATA: Not regulated
- UN proper shipping name
  - DOT, ADN, IATA: Not regulated
  - IMDG: Not Regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA
  - Class: Not regulated
- Packing group
  - DOT, IMDG, IATA: Not regulated
- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user
  - Not applicable
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  - Not applicable
- UN "Model Regulation":
  - Not regulated

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA

  - Section 315 (extremely hazardous substances):
    - None of the ingredients is listed.
# Safety Data Sheet

## Trade name: Methyl Cellosolve 1.5% w/w Solution

### Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.

### TSCA (Toxic Substances Control Act):

- 9004-67-5) Methyl Cellosolve, 4000 cps

### 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 Not Applicable
- Hazard pictograms Not Applicable
- Signal word Not Applicable
- Hazard statements Not Applicable

### Precautionary statements

- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If swallowed: Call a poison center/doctor if you feel unwell.
- If on skin: Wash with plenty of water.
- Dispose of contents/container in accordance with local/regional/national/international regulations.

### Chemical safety assessment
A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:** Mr. Nelson
- **Date of preparation / last revision:** 11/13/2014
- **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: US 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 Abstract Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
1 Identification

- Product identifier
- Trade name: Methylene Blue
  0.1% w/v Solution
- Article number: 131-0484
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Aqua Solutions, Inc.
  6913 Highway 225
  DEER PARK, TX 77536
  USA
  800-256-2586
- Information department:
  Technical Coordinator
  Sherman Nelson sherman@aquasolutions.org
  Product safety department
- Emergency telephone number:
  Chemtrec: 800-424-9300
  Canutec: 613-996-6666

2 Hazard(s) identification

- Classification of the substance or mixture
  The product is not classified according to the Globally Harmonized System (GHS).
- Label elements
  - GHS label elements Not Applicable
  - Hazard pictograms Not Applicable
  - Signal word Not Applicable
  - Hazard statements Not Applicable
- Precautionary statements
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  If swallowed: Call a poison center/doctor if you feel unwell.
  If on skin: Wash with plenty of water.
  Dispose of contents/container in accordance with local/regional/national/international regulations.
- Classification system:
  - NFPA ratings (scale 0 - 4)
    
    Health = 0
    Fire = 0
    Reactivity = 0
  - HMIS-ratings (scale 0 - 4)
    
    HEALTH 0
    FIRE 0
    REACTIVITY 0
- Other hazards
  - Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
Trade name: Methylene Blue
0.1% w/v Solution

- Dangerous components: Not Applicable

- Table of Nonhazardous Ingredients

<table>
<thead>
<tr>
<th>CAS</th>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7220-79-3</td>
<td>Methylene Blue</td>
<td>0.1%</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>Water, Deionized, ASTM Type II</td>
<td>99.9%</td>
</tr>
</tbody>
</table>

4 First-aid measures

- Description of first aid measures
  - General information: No special measures required.
  - After inhalation: Supply fresh air; consult doctor in case of complaints.
  - After skin contact: Generally the product does not irritate the skin.
  - After eye contact: Rinse opened eye for several minutes under running water.
  - After swallowing: If symptoms persist consult doctor.
  - 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: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions: Dilute with plenty of water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 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: No special measures required.
- 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: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
- 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 item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace:
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:
The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- Protection of hands:
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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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 can not 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 found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Liquid
  - Color: Blue
  - Odor: Odorless
  - Odour threshold: Not determined.
- pH-value at 20 °C (68 °F): 7
- Change in condition
  - Melting point/Melting range: Undetermined.
  - 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 selfigniting.
  - Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
Trade name: Methylene Blue  
0.1% w/v Solution

Upper:
Not determined.

- Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)
- Density at 20 °C (68 °F): 1 g/cm³ (8.345 lbs/gal)
- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.

- Solubility in / Miscibility with Water: Fully miscible.
- Partition coefficient (n-octanol/water): Not determined.

- Viscosity: Not determined.
  Dynamic: Not determined.
  Kinematic: Not determined.

- Solvent content: Organic solvents: 0.0 %
  Water: 99.9 %

- Solids content: 0.1 %
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
  - Possibility of hazardous reactions: No dangerous reactions known.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  The product is not subject to classification according to internally approved calculation methods for preparations:
  When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- 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.
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 treatment methods
  - Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

- UN-Number
  - DOT, ADN, IMDG, IATA: Not regulated

- UN proper shipping name
  - DOT, ADN, IATA: Not regulated
  - IMDG: Not Regulated

- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: Not regulated
  - Class: Not regulated

- Packing group
  - DOT, IMDG, IATA: Not regulated

- 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”:
  - Not regulated
15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - 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):
    None of the ingredients is listed.
  - 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
  - Not Applicable
- Hazard pictograms
  - Not Applicable
- Signal word
  - Not Applicable
- Hazard statements
  - Not Applicable
- Precautionary statements
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - If on skin: Wash with plenty of water.
  - Dispose of contents/container in accordance with local/regional/national/international regulations.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environment protection department.
- Contact: Mr. Nelson
- Date of preparation / last revision 11/13/2014 / -
- 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: US Department of Transportation
  - IATA: International Air Transport Association
| Trade name: Methylene Blue  
| 0.1% w/v Solution |

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)
SAFETY DATA SHEET

Product name: Space Sand / Slick Sand

Company: DuneCraft, INC
19201 Cranwood Pkwy
Warrensville Hts., OH 44128

Product Use: Product aid in educational science kits to be used under adult supervision.

2. HAZARDS IDENTIFICATION

Appearance and Odor:

Form: Granular – acrylic coated silica

Color: Multi colored

Odor: None

Potential Health Effects: None. See Section 11 for more information.

Potential Physical/Chemical Effects: The product swells in water. The product when wet renders surfaces extremely slippery.

OSHA Regulatory Status: This material is not considered hazardous in accordance with OSHA 29 CFR 1910.1200.

Potential Environmental Effects: None. See Section 12 for more information.

Other information No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Identification: Acrylic coated silica
Regulated Components:
Componests are on TSCA and Canada DSL. Considered nonhazardous under OSHA 29 CFR 1910.1200.

4. FIRST AID MEASURES

Inhalation: Move to fresh air.

Skin contact: Wash with water and soap as a precaution. Get medical attention if irritation develops and persists.

Eye contact: Rinse thoroughly with plenty of water, also under the eyelids. Get medical attention.

Ingestion: Do not give any medication unless specified by a physician

5. FIRE FIGHTING MEASURES


Unsuitable extinguishing media: None.

Precautions: The product will swell in water. The product when wet renders surfaces extremely slippery.

Special protective equipment for firefighters: No special protective equipment required.

Specific methods: Keep personnel removed and upwind of fire.

Specific hazards: In the event of fire the following can be released: Nitrogen Oxides. Carbon Oxides.

Flash point (°C): Not applicable.

Auto ignition temperature (°C): Not applicable.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: No special precautions required. The product swells in water. The product when wet renders surfaces extremely slippery.

Environmental precautions: As with all chemical products, do not flush into surface water.

Methods for cleaning up: Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

Handling: Avoid contact with skin and eyes. Wash hands before breaks and at the end of workday.

Storage: Keep in a dry, cool and well-ventilated place. The recommended storage temperature is 5-30 °C.

Technical measures/Precautions: No special precautions required.


Technical measures/Storage conditions: No special storage conditions required.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Occupational Exposure Limits:
None.

Engineering measures: Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.

Personal protective equipment:

Respiratory protection: Dust safety masks are recommended where concentration of total dust is more than 10 mg/m³.

Hand protection: PVC or other plastic material gloves.

Eye protection: Safety glasses with side-shields. Do not wear contact lenses where this product is used.

Skin and body protection: Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Round</td>
</tr>
<tr>
<td>Color</td>
<td>Multi Colored</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>pH</td>
<td>5 - 8 @ 5 g/L</td>
</tr>
<tr>
<td>Melting point/range (°C)</td>
<td>&gt; 150°C</td>
</tr>
<tr>
<td>Flash point (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto ignition temperature (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure (mm Hg)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Approx. bulk density</td>
<td>0.6 - 0.9</td>
</tr>
<tr>
<td>Viscosity (mPa.s)</td>
<td>See Technical Bulletin</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability: Stable. Hazardous polymerization does not occur.
Materials to avoid: Strong oxidizing agents. Strong acids. Oxidizing agents may cause exothermic reactions.

Hazardous decomposition products: Thermal decomposition may produce: nitrogen oxides (NOx), carbon oxides (COx). Hydrogen cyanide (hydrocyanic acid).

11. TOXICOLOGICAL INFORMATION

Product Information

Acute toxicity:

Oral: LD50/oral/rat > 5000 mg/kg

Dermal: LD50/dermal/rat > 5000 mg/kg

Inhalation: The product is not expected to be toxic by inhalation.

Irritation:

Skin: Not irritating.

Eyes: Not irritating.

Sensitization: Not sensitizing.

Mutagenicity: Not mutagenic.

Carcinogenicity: Not carcinogenic.

Reproductive effects: Not toxic for reproduction.

Chronic toxicity: No chronic effects.

12. ECOLOGICAL INFORMATION

Product Information

Aquatic toxicity: Product is considered not toxic to aquatic forms

Persistence and degradability: Not readily biodegradable.

Hydrolysis: Does not hydrolyze.

Bioaccumulation: Does not bioaccumulate.

LogPow: -2

LogKow: Not determined.
13. DISPOSAL CONSIDERATIONS

Disposal: Dispose of in accordance with local, state and federal regulations.

Container: Rinse empty containers with water and use the rinse water to prepare the working solution. Can be land filled or incinerated, when in compliance with local, state and federal regulations.

14. TRANSPORT INFORMATION

DOT: Not classified as dangerous in the meaning of DOT regulations.

IMDG/IMO: Not classified as dangerous in the meaning of IMO/IMDG regulations.

ICAO/IATA: Not classified as dangerous in the meaning of ICAO/IATA regulations.

15. REGULATORY INFORMATION

Product Information

US SARA Reporting Requirements: None.

RCRA status: Not RCRA hazardous.

SARA (Section 311/312) hazard class: Not concerned.

International Inventories:

USA (TSCA): All components of this product are either listed on the inventory or are exempt from listing.

China (IECSC): All components of this product are either listed on the inventory or are exempt from listing.

European Union (REACH): All components of this product have been registered or pre-registered with the European Chemicals Agency or are exempt from registration.

Australia (AICS): All components of this product are either listed on the inventory or are exempt from listing.

Japan (ENCS): All components of this product are either listed on the inventory or are exempt from listing.

Korea (ECL): Status not yet confirmed. For Research & Development purposes only.

Philippines (PICCS): Status not yet confirmed. For Research & Development purposes only.

Taiwan (CSNN): All components of this product are either listed on the inventory or are exempt from listing.

New Zealand (NZIoC): All components of this product are either listed on the inventory or are exempt from listing.
16. OTHER INFORMATION

NFPA and HMIS Ratings:

NFPA:

Health: 0
Flammability: 1
Instability: 0

HMIS:

Health: 1
Flammability: 1
Physical Hazard: 0
PPE Code: B

This MSDS was prepared in accordance with the following:
ISO 11014-1: Material Safety Data Sheet for Chemical Products ANSI Z400.1-2004; Material Safety Data Sheets - Preparation

Revision Number: 11

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.
1 Identification

- Product identifier
  - Trade name: Kosher Salt
  - Article number: 191-1117
  - CAS Number: 7647-14-5
  - EC number: 231-598-3

- Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: Aqua Solutions, Inc.
    6913 Highway 225
    DEER PARK, TX 77536
    USA
    800-256-2586
  - Information department:
    Technical Coordinator
    Sherman Nelson sherman@aquasolutions.org
  - Emergency telephone number:
    Chemtrec: 800-424-9300
    Canutec: 613-996-6666

2 Hazard(s) identification

- Classification of the substance or mixture
  The substance is not classified according to the Globally Harmonized System (GHS).

- Label elements
  - GHS label elements Not Applicable
  - Hazard pictograms Not Applicable
  - Signal word Not Applicable
  - Hazard statements Not Applicable
  - Classification system:
    - NFPA ratings (scale 0 - 4)
      Health = 0
      Fire = 0
      Reactivity = 0
    - HMIS-ratings (scale 0 - 4)
      HEALTH Health = 1
      FIRE Fire = 1
      REACTIVITY Reactivity = 0

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description
  7647-14-5 Sodium Chloride
- Identification number(s)
- EC number: 231-598-3

4 First-aid measures

- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: If symptoms persist consult doctor.
- 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: No special measures required.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- 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 No special measures required.
- 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: No special requirements.
  - Information about storage in one common storage facility: Not required.
  - Further information about storage conditions: None.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
- Components with limit values that require monitoring at the workplace: Not required.
- Additional information: The lists that were valid during the creation were used as basis.

- Exposure controls
- Personal protective equipment:
- General protective and hygienic measures:
The usual precautionary measures for handling chemicals should be followed.
- Breathing equipment: Not required.
- Protection of hands:
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.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the 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.
- Penetration time of glove material
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Goggles recommended during refilling.

9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Crystalline
  - Color: White
  - Odor: Odorless
  - Odour threshold: Not determined.
- pH-value at 20 °C (68 °F): 6-9
- Change in condition
  - Melting point/Melting range: Information not °C
  - Boiling point/Boiling range: 1413 °C (2575 °F)
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature:
  - Decomposition temperature: Not determined.
  - Auto igniting: Not determined.
- Danger of explosion: Product does not present an explosion hazard.
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- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.

- Vapor pressure: Not determined.

- Density at 20 °C (68 °F): 2.165 g/cm³ (18.067 lbs/gal)

- Bulk density at 20 °C (68 °F): 800-1600 kg/m³
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.

- Solubility in / Miscibility with Water at 20 °C (68 °F): 358 g/l

- Partition coefficient (n-octanol/water): Not determined.

- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
  - Organic solvents: 0.0 %
  - Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    7647-14-5 Sodium Chloride
    - Oral LD50 3000 mg/kg (rat)

- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritating effect.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
  - When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
  - The substance is not subject to classification.
Trade name: Kosher Salt

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:
    Water hazard class 1 (Assessment by list): slightly hazardous for water.
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

13 Disposal considerations

- Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packagings:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- DOT, IMDG, IATA: Not regulated
- UN proper shipping name
- DOT, IATA: Not regulated
- IMDG: Not Regulated
- Transport hazard class(es)
- DOT, IMDG, IATA
- Class: Not regulated
- Packing group
- DOT, IMDG, IATA: Not regulated
- Environmental hazards:
- Marine pollutant: No
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):** Substance is not listed.
    - **Section 313 (Specific toxic chemical listings):** Substance is not listed.
  - **TSCA (Toxic Substances Control Act):** Substance is listed.
  - **Proposition 65**
    - **Chemicals known to cause cancer:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
    - **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
    - **Chemicals known to cause developmental toxicity:** Substance is not listed.
  - **Carcinogenic categories**
    - **EPA (Environmental Protection Agency)** Substance is not listed.
    - **TLV (Threshold Limit Value established by ACGIH)** Substance is not listed.
    - **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements** Not Applicable
  - **Hazard pictograms** Not Applicable
  - **Signal word** Not Applicable
  - **Hazard statements** Not Applicable
Trade name: Kosher Salt

- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Department issuing SDS: Environment protection department.
- Contact: Mr. Nelson
- Date of preparation / last revision: 11/17/2014 / -
- 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: US Department of Transportation
  IATA: International Air Transport Association
  ACGIH: American Conference of Governmental Industrial Hygienists
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent