

# Safety Data Sheet

## MANUFACTURER



**CellMosaic, Inc.**  
10A Roessler Road  
Woburn, MA 01801, USA  
Phone: 781-463-0002; Fax: 781-998-4694  
E-mail: info@cellmosaic.com

## Product Identification

**Trade Name:** SepSphere™ SM Acid  
Immobilization Kit  
**CAS No.:** N/A  
**Molecular Weight:** N/A

**Chemical Formula:** N/A  
**Part No.:** CM71004

## Composition/Information on Ingredients

### Each kit includes:

- 1) A column containing 5 mL agarose beads (non-hazardous) and 5 mL of 0.02% aqueous sodium azide
- 2) A 1.5 mL microcentrifuge tube containing 10-15 mg Reagent A
- 3) A 1.5 mL microcentrifuge tube containing 10-15 mg of Reagent B (non-hazardous)
- 4) A 1.5 mL microcentrifuge tube containing 1.2 mL of Solution A
- 5) A plastic bottle containing 20 mL of Reaction Buffer (non-hazardous aqueous buffer)
- 6) A plastic bottle containing 10 mL of Storage Buffer (0.02% sodium azide in phosphate buffer saline)
- 7) A plastic bag containing one 15 mL centrifuge tube, two of 1.5 mL microcentrifuge tubes, and two of HPLC vials (non-hazardous)

## Handling and Storage for Hazardous Chemicals

Handling for Solution A: See Attached Supplement for Solution A

Handling for Reagent A: See Attached Supplement for Reagent A

## Other Information

Sodium azide is present in the mixture below 1%, are not considered hazardous, as defined in 29 CFR 1910.1200 (OSHA Hazard Communication Standard). Therefore, a Material Safety Data Sheet is not required. We recommend treating all chemicals with caution.

## Transportation

None of the components in the kit is regulated for transportation.

## Solution A

### 1. Product and Company Identification

**Product Name:** Solution A

**Product No.:** CM01006

**Company:** CellMosaic, Inc. 10A Roessler Road, Woburn, MA 01801

### 2. Hazards Identification

#### Classification of the substance or mixture



Flammable liquids

Eye Irritation

Reproductive Toxicity

GHS Category 4

GHS Category 2

GHS Category 2A

#### Label elements

**Signal Word:** WARNING!

#### Hazard Statements

H227 - Combustible liquid and vapor

H316 – Causes mild skin irritation

H320 - Causes eye irritation

H335- May cause respiratory irritation

H360 – May damage fertility or the unborn child

#### Precautionary Statements

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 – If on skin or hair: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

May cause irritation to the eyes, skin, and respiratory tract. May cause harm to the unborn child. Maybe harmful if swallowed, inhaled, or absorbed through the skin. Light sensitive. Combustible liquid and vapor. Hygroscopic.

### 3. Composition and Information on Ingredients

Ingredient	CAS No.	Percent	Hazardous
The specific chemical identities of the organic solvent is being held as a trade secret (Proprietary component)	N/A	99-100%	Yes

#### 4. First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Ingestion:** If swallowed, DO NOT INDUCE VOMITING without medical advice. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical attention immediately.

**Skin Contact:** Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention.

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention.

**Notes to Physician:** Treat symptomatically and supportively.

#### 5. Fire Fighting Measures

**Flammability:** Combustible liquid and vapor. (GHS Category 4)

**Flash Point:** 90-100°C (194-212 °F)

**Autoignition Temperature:** >200 °C (392 °F)

**Flammable Limits:** Lower Limit 1.3 vol%, Upper Limit -9.5 vol%.

**Products of Combustion:** May decompose into irritating and highly toxic gases under fire conditions (nitrogen oxides, carbon monoxide, carbon dioxide).

**Specific Fire Hazards:** As in any fire, always wear self-contained breathing apparatus in pressure-demand (MSA/NIOSH approved or equivalent), and full protective gear. Use water spray to keep fire exposed containers cool. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

**Specific Explosion Hazards:** No information available

**Fire Fighting Media:** Use dry chemical, carbon dioxide, water spray, or appropriate foam.

#### NFPA

**Health Rating:** 2

**Flammability Rating:** 2

**Instability:** 0

**Physical hazards** N/A

#### 6. Accidental Spill Measures

Absorb spilled liquid with sorbent pads, socks, or other inert material such as vermiculite, sand, or earth. Use spark-proof tools. Provide ventilation to the affected area and remove all ignition sources. Approach the spill from upwind and pick up absorbed material and place it in a suitable container. Always use proper personal protective equipment as described in **section 8**.

## 7. Handling and Storage

**Precautions:** Always use proper personal protective equipment as described in section 8. Wash thoroughly after handling. Avoid contact with eyes, skin, and clothing. Remove contaminated clothing and wash before reuse. Empty containers contain product residue (liquid and vapor) and can be dangerous. Use with adequate ventilation. Avoid breathing vapor or mist.

**Storage:** Store away from ignition sources. Keep in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store under nitrogen blanket..

## 8. Exposure Controls/Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or using the material should be equipped with eyewash station and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Personal Protective Equipment:** Wear protective chemical goggles or other appropriate eye protection. Use butyl rubber gloves and protective clothing to prevent skin exposure. A respiratory protection program that meets OSHA 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever possible. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Exposure Limits:** None established.

## 9. Physical and Chemical Properties

**Physical State and Appearance:** Clear, Colorless liquid

**Odor:** No information available

**Solubility:** soluble.

**Specific Gravity:** No information available

**pH:** slightly basic 8-10 (100 g/L H<sub>2</sub>O)

**Boiling Point:** No information available

**Freezing/Melting Point:** No information available

**Flash Point:** No information available

**Vapor Density (Air=1):** N/A

**Vapor Pressure:** N/A

**Evaporation Rate (Butyl acetate =1):** No information available

**Partition coefficient; n-octanol/water:** No information available

**Autoignition Temperature:** No information available

**Decomposition Temperature:** No information available

**Viscosity:** N/A

**Molecular Formula:** N/A

**Molecular Weight:** N/A

## 10. Stability and Reactivity

**Stability:** Stable at room temperature in closed container under normal handling and storage conditions.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

**Incompatibilities with Various Substances:** Strong oxidizing agents, strong acids.

**Conditions to Avoid:** Light, ignition sources, excess heat, exposure to moist air or water.

## 11. Toxicological Information

**Routes of Entry:** Inhalation, skin absorption, skin contact

### Acute Exposure Hazards:

**INHALATION HAZARD:** Causes respiratory tract irritation. May cause headache. Material has a very low vapor pressure at room temperature, so inhalation exposures are not expected unless material is heated or misted.

**INGESTION HAZARD:** Ingestion may cause gastrointestinal irritation with nausea, vomiting, and diarrhea.

**SKIN CONTACT HAZARD:** May cause skin irritation. May be harmful if absorbed through the skin. Not expected to cause an allergic reaction. Because of the high permeability rate in human skin, prolonged contact should be avoided.

**EYE CONTACT HAZARD:** May cause eye irritation. May cause temporary corneal clouding.

**Chronic Exposure Hazards:** Prolonged or repeated exposure may cause dermatitis. Adverse reproductive effects have been reported in animals. Testicular effects were noted in rates after repeated, high-dose oral and inhalation exposures (BASF). Human occupational exposure has been associated with chronic eye irritation, headaches, and irritant contact dermatitis. Airborne concentrations of > 49 ppm are intolerable (REPROTEXT).

### Animal Toxicity:

Draize test, rabbit, eye: <150 mg Moderate

Oral, mouse: LD50 <5200 mg/kg;

Oral, rat: LD50 <4000 mg/kg;

Skin, rabbit: LD50 < 10 g/kg;

Sensitization test, guinea pig: negative; patch test (humans): negative (Merck)

**Carcinogenicity:** Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65

**Epidemiology:** No information available

**Teratogenicity:** Proposition 65 maximum allowable dose level for developmental toxicity for this solvent is 3200 ug/day for the inhalation route and 17.00 ug/day for the dermal route.

**Reproductive Effects:** Possible effects observed.

**Mutagenicity:** Possible effects observed.

**Neurotoxicity:** No information available

**Other Studies:** No information available

## 12. Ecological Information

**Environmental Fate:** No information available

**Physical:** No information available

**Environmental Toxicity:**

Daphnia: EC50 < 5000 mg/L, 48H

Fish: Gold orfe: LC50 < 4500 mg/L, 96H

Bacteria: EC50, >9000 mg/L, 48H

Algae: IC50, >500mg/L, 72H

Log Pow: No information available; BOD < 120 mg/L; COD < 1800 mg/L

### 13. Disposal Considerations

Material that cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Processing, use or contamination of this product may change the waste management options. Waste generators must decide if discarded material is a hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of container and unused contents in accordance with federal, state and local requirements.

### 14. Transport Information

Not regulated for transportation.

### 15. Regulatory Information

US Federal Regulations:

TSCA: Listed on the TSCA Inventory.

Health and Safety Reporting List: Not listed.

Chemical Test Rules: 40 CFR 799.5000.

Section 12b: Not listed..

**TSCA Significant New Use Rule:** Does not have an SNUR under TSCA.

**CERCLA Hazardous Substances:** does not have an RQ

**SARA Section 302:** Does not have a TPQ

**SARA Codes:**– immediate, delayed, fire

**Section 313:** Subject to SARA Title III Section 313 reporting requirements.

**Clean Air Act:** Not listed as a hazardous air pollutant (HAP). It is not a Class 1 Ozone Depleter. It is not a Class 2 Ozone Depleter.

**Clean Water Act:** Not listed as a Hazardous Substance. It is not a Priority Pollutant. It is not a Toxic Pollutant.

**OSHA:** Not considered highly hazardous by OSHA.

**US State Regulations:**

On the following state right-to-know lists: Pennsylvania, Minnesota, and Massachusetts.

California Prop 65: California No Significant Risk Level: Not listed

**Canada:**

DSL/NDS: Listed on Canada's DSL list.

WHMIS: This product has a WHMIS classification of B3, D2A, D2B. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by those regulations.

Ingredient Disclosure List: No information available

**DSCL (EEC):**

Hazard Symbols: Xi, T

Risk Phrases: R36/37/38 – Irritating to eyes, respiratory system, skin; R61 – May cause harm to the unborn child.

Safety Phrases: S26 – In case of contact with eyes, rinse with plenty of water and seek medical advice; S37/39 – Wear suitable gloves and eye/face protection; S45 – In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible); S53 – Avoid exposure, obtain special instructions before use.

WGK (Water Danger/protection): 1

## 16. Other Information

### References:

Chemical Abstract databases. OSHA, SARA. Other similar compound's SDS.

**Other Special Considerations:** Not available

## Reagent A

### 1. Product and Company Identification

**Product Name:** Reagent A

**Product No.:** CM10003

**Company:** CellMosaic, Inc. 10A Roessler Road, Woburn, MA 01801

### 2. Hazards Identification

#### GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2), H315

Serious eye damage (Category 1), H318

Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335 For full text of H-Statements mentioned in this section, see Section 16.

#### GHS label elements

**Pictogram:**



#### Label elements

**Signal Word:** Danger

#### Hazard Statements

H315 – Causes skin irritation

H318 - Causes serious eye damage

H335- May cause respiratory irritation

#### Precautionary Statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray  
 P264 Wash skin thoroughly after handling  
 P271 Use only outdoors or in a well-ventilated area  
 P280 Wear protective gloves/eye protection/ face protection.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water  
 P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.  
 P305+P351+P338+P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P362 Take of contaminated clothing and wash before reuse.  
 P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up  
 P501 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS – none

### 3. Composition and Information on Ingredients

Ingredient	CAS No.	Percent	Hazardous
The specific chemical identities of this reagent is being held as a trade secret (Proprietary component)	N/A	99-100%	Yes

### 4. First Aid Measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**Inhalation:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

**Skin Contact:** Wash off with soap and plenty of water. Consult a physician.

**Eye Contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**Most Important Symptoms and Effects, Both Acute and Delayed** The most important known symptoms and effects are described in the labeling (Section 2) or in Section 11.

**Indication of Immediate Medical Attention and Special Treatment Needed** No data available



## 5. Fire Fighting Measures

**Extinguishing Media:** Use water spray, alcohol-resistant foam, carbon dioxide or dry chemical extinguisher.

**Hazardous thermal decomposition products:** Oxides of carbon (CO, CO<sub>2</sub>), nitrogen (NO<sub>x</sub>), Hydrogen chloride gas

**Special fire-fighting procedures:** Firefighters should wear positive pressure self-contained breathing apparatus (SCBA) if necessary.

**Further Information:** No data available

## 6. Accidental Spill Measures

**Personal Precautions:** Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see Section 8.

**Environmental Precautions:** Do not let product enter drains.

**Method and Materials for Containment and Cleaning Up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

**Reference to Other Sections:** For disposal see Section 13

## 7. Handling and Storage

**Precautions:** Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation in places where dust is formed. For precautions see Section 2.

**Storage:** Keep container tightly closed in a dry, well-ventilated place.

Recommended Storage Temperature: -20 °C

Moisture sensitive. Store under inert gas.

Storage class (TRGS 510): Non-combustible solids.

**Specific End Uses:** Apart from the uses mentioned in Section 1 no other specific uses are stipulated

## 8. Exposure Controls/Personal Protection

### Control Parameters:

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values

### Exposure Controls

**Appropriate engineering controls:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day

### Personal Protective Equipment

**Eye/ Face Protection:** Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin Protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws.

**Full Contact**

Material: Nitrile Rubber  
Minimum Layer Thickness: 0.11 mm  
Breakthrough Time: 480 min

**Splash Contact**

Material: Nitrile Rubber  
Minimum Layer Thickness: 0.11 mm  
Breakthrough Time: 480 min

Test Method: EN 374

If used in solution, or mixed with other substances, and under conditions differing from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use. It should not be construed as offering an approval for any specific use scenario.

**Body Protection:** Impervious clothing, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of dangerous material at the specific workplace.

**Respiratory:** Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of Environmental Exposure:** Prevent further leakage or spillage if safe to do so. Do not allow product to enter drains.

## 9. Physical and Chemical Properties

**Physical State:** Crystalline

**Color:** White, off-white

**Odor:** No data available.

**Odor Threshold:** No data available.

**pH:** No data available

**Melting Point:** No data available

**Initial Boiling Point and Boiling Range:** No data available

**Flash Point:** No data available.

**Evaporation Rate:** No data available.

**Flammability (solid, gas):** No data available.

**Upper/ Lower Flammability or Explosion Limits:** No data available.

**Vapor Pressure:** No data available

**Vapor Density:** No data available.

**Relative Density:** No data available  
**Water Solubility:** No data available  
**Partition Coefficient (n-octanol/water):** No data available.  
**Auto-ignition Temperature:** No data available.  
**Decomposition Temperature:** No data available.  
**Viscosity:** No data available.  
**Explosive Properties:** No data available.  
**Oxidizing Properties:** No data available

**Other Safety Information:** No data available

## 10. Stability and Reactivity

**Reactivity:** No data available  
**Chemical Stability:** Stable under recommended storage conditions.  
**Possibility of Hazardous Reactions:** No data available  
**Conditions to Avoid:** No data available  
**Materials to Avoid:** Strong oxidizing agents  
**Hazardous Decomposition Products:** Carbon oxides (carbon dioxide, carbon monoxide) and nitrogen oxides (NO<sub>x</sub>), hydrogen chloride (HCl).

## 11. Toxicological Information

**Acute Toxicity:** No data available  
    Inhalation: No data available  
    Dermal: No data available  
    LD50 Intravenous – Mouse: <60 mg/kg  
**Skin Corrosion/irritation:** No data available  
**Serious Eye Damage/Eye Irritation:** No data available  
**Respiratory or Skin Sensitization:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.  
**Germ Cell Mutagenicity:** No data available  
**Carcinogenicity**  
    **IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC  
    **ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH  
    **NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.  
    **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  
**Reproductive Toxicity:** No data available  
**Specific Organ Toxicity – Single Exposure:** No data available  
**Specific Organ Toxicity – Repeated Exposure:** No data available  
**Aspiration Hazard:** No data available

## Additional Information

**RTECS:** FF2200000

**Signs and Symptoms of Exposure:** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## 12. Ecological Information

**Toxicity:** No data available

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**PBT and PvBv assessment:** No data available

**Other adverse effects:** No data available

## 13. Disposal Considerations

### Waste Treatment Methods

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated Packaging:** Dispose of as unused product.

## 14. Transport Information

### International Transport Regulations

**DOT** Not dangerous goods

**IMDG** Not dangerous goods

**IATA** Not dangerous goods

## 15. Regulatory Information

**SARA 302 Components:** No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313

**SARA 311/312 Hazards:** Acute health hazard

### State Regulations:

**Massachusetts Right To Know Components:** No components listed.

On the **Pennsylvania** and **New Jersey** right-to-know list

**California Prop. 65 Components:** This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

## 16. Other Information

### Full Text of H-Statements Referred to Under Sections 2 and 3

**Eye Dam.** Serious eye damage

**H315** Causes skin irritation

**H318** Causes serious eye damage

**H335** May cause respiratory inflammation

**Skin Irrit.** Skin irritation

**STOT SE** Specific target organ toxicity – single exposure

**Hazardous Material Information System (U.S.A.) Rating**

**Health hazard:** 2

**Chronic health hazard:**

**Flammability:** 0

**Physical hazard**0

**National Fire Protection Association (U.S.A.) Rating**

**Health hazard:** 2

**Fire hazard:** 0

**Reactivity hazard:** 0

**Created:** Aug. 9, 2017

**Last Updated:** Aug. 9, 2017

**Revision Information:** Version 0

**Product Use:** Laboratory Reagent.

**Disclaimer:**

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**Prepared by:** CellMosaic, Inc. Health and Safety