

Safety Data Sheet

MANUFACTURER

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General Information

Trade Name: PerKit™ Antibody Peptide Conjugation Kit
Part No. Covered by this SDS: CM32402x1, CM32402x3

Product Content

- 1) One or three microcentrifuge tube(s) containing less than 1 mg of *N*-maleimidopropyl-oxysuccinimide ester (non-hazardous).
- 2) A microcentrifuge tube containing 0.5 mL solution A (hazardous).
- 3) A microcentrifuge tube containing 1 mL of solution B (non-hazardous).
- 4) A bottle containing 4 mL or 12 mL of buffer A (non-hazardous).
- 5) A bottle containing 4 mL or 12 mL of buffer B (non-hazardous).
- 6) A bottle containing 4 mL or 12 mL of Storage Buffer (phosphate buffer saline) (non-hazardous).
- 7) Plastic bags containing centrifugal filter devices and centrifuge tubes (non-hazardous).

Handling and Storage for Hazardous Chemicals

Handling for **Solution A**: See attached supplemental information.

Transportation

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

Supplemental information starts from next page.

Solution A

SECTION 1. Identification of the substance/mixtures and of the company/undertaking

1.1. Product identifiers

Product Name: Solution A

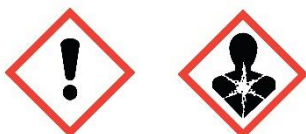
Product No.: CM01008

1.2. Detail of the supplier of the safety data sheet

Company: CellMosaic, Inc. 10A Roessler Road, Woburn, MA 01801, Phone: +1 781-463-0002

SECTION 2. Hazards Identification

2.1. Classification of the substance or mixture



Flammable liquids

GHS Category 4

Eye Irritation

GHS Category 2

Reproductive Toxicity

GHS Category 2A

2.2. GHS Label elements, including precautionary statements.

Signal Word: WARNING!

Hazard Statement(s):

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 Statement(s):

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.

SECTION 3. Composition and Information on Ingredients

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

SECTION 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. Wash clothing before reuse. Thoroughly clean shoes before reuse. 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.

SECTION 5. Fire Fighting Measures

5.1. Flammability

Combustible liquid and vapor. (GHS Category 4)

Flash Point: 64 °C (147 °F)

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

Flammable Limits: Lower Limit 1.8 vol%, Upper Limit 11.5 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 chemicals, carbon dioxide, water spray, or appropriate foam.

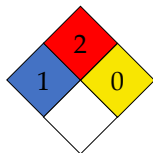
5.2. NFPA

Health Rating: 1

Flammability Rating: 2

Instability: 0

Physical hazards N/A



SECTION 6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: use personal protective equipment. Avoid dust formation. Avoid breathing dust. For personal protection see section 8.

Environmental precautions: No special environmental precautions required.

Methods and materials for containment and cleaning up: 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.

Reference to other sections: for disposal see section 13.

SECTION 7. Handling and Storage

Handling: 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 it in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8. Exposure Controls/Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities for storing or using the material should be equipped with an 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 respirators when necessary.



Exposure Limits: None established.

SECTION 9. Physical and Chemical Properties

Physical State and Appearance: Clear, Colorless liquid.

Odor: None.

Solubility: Water soluble.

Specific Gravity: No information available.

pH: slightly basic 8-10 (100 g/L H₂O).

Boiling Point: 164-165 °C.

Freezing/Melting Point: -20 °C.

Flash Point: No information available.

Vapor Density (Air=1): 3.01

Vapor Pressure: N/A.

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

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

Autoignition Temperature: 345 °C.

Decomposition Temperature: No information available.

Viscosity: N/A.

Molecular Formula: N/A.

Molecular Weight: N/A.

SECTION 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: Ignition sources, excess heat.

SECTION 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.

Animal Toxicity:

Oral, mouse: LD₅₀ >4620 mg/kg.

Oral, rat: LD₅₀ >4800 mg/kg.

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

Epidemiology: No information available.

Teratogenicity: No teratogenic effect was observed at or below dosage levels of 160 mg/kg/day.

Reproductive Effects: Possible effects observed.



Mutagenicity: Possible effects observed.

Neurotoxicity: No information available.

Other Studies: No information available.

SECTION 12. Ecological Information

Environmental Fate: Biodegradability aerobic - Exposure time 28 d Result: 70 % - Readily biodegradable. (OECD Test Guideline 301C).

Environmental Toxicity:

Daphnia: EC50 >500 mg/L, 48H.

Fish: Gold orfe: LC50 > 500 mg/L, 96H.

Bacteria: EC50, >1995 mg/L, 30 min.

Algae: ErC50, >500mg/L, 72H.

SECTION 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 hazardous waste. State and local disposal regulations may differ from federal disposal definitions found in 40 CFR 261.3. Dispose of containers and unused contents in accordance with federal, state and local requirements.

SECTION 14. Transport Information

DOT (US)

NA-Number: 1993 Class: NONE.

Packing group: III Proper shipping name: Combustible liquid.

Poison Inhalation Hazard: No.

IMDG

Not dangerous goods.

IATA

Not dangerous goods.

SECTION 15. Regulatory Information

SARA 302 Components: This material does not contain any components with a section 302 EHS TPQ.

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 Fire Hazard, Acute Health Hazard, Chronic Health Hazard.

California Prop. 65 Components, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm.

SECTION 16. Other Information

References: This document has been prepared in accordance with the MSDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and WHMIS Controlled Products Regulation, Chemical Abstract databases, Superfund Amendments and Reauthorization Act (SARA) and other similar compound's SDS.

Other Special Considerations: Not available.

Created: July 24, 2023

Revision Information: Version 2

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Product Use: Laboratory Reagent



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Prepared by: CellMosaic, Inc. Health and Safety.