Material safety data sheet - AEC coloring system

Supplier:
U-CyTech biosciences
Yalelaan 48
3584 CM Utrecht, The Netherlands

Product:
AEC coloring system
to be used in U-CyTech cytokine ELISPOT kit
Cat. nr. ACT356

AEC (3-Amino-9-ethylcarbazole) stock solution

Section I
Product:
AEC (3-Amino-9-ethylcarbazole) stock solution, part of AEC coloring system

Section II - Physical Data
Product: 3-Amino-9-ethylcarbazole (AEC)
Chemical formula/composition: $C_{14}H_{14}N_2$
Physical description: brownish solution
Melting point: 98-100°C
Boiling point: not available
Specific gravity: not available
Vapor pressure: not available
Solubility in N,N-Diethylformamide (DEF)
CAS #: 132-32-1

Dissolved in: N,N-Diethylformamide (DEF)
Chemical formula/composition: $C_5H_{11}NO$
CAS #: 617-84-5
Melting point: not available
Boiling point: 61-63°C
Specific gravity: 0.906 g/cm^3
Vapor pressure: not available

Section III - Health Hazards
The classification and labeling according to EU directives indication of danger is T, Toxic.
Risk phrases R 25-36/37/38: Toxic if swallowed. Irritating to eyes, respiratory system and skin.
Safety phrase S 26-36/37/39-45: In case of contact with eyes, rinse immediately with plenty of water and medical advice. Wear protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately and show this label.

Section IV - First Aid measures
After contact with skin: wash contaminated area with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.
After swallowing: if the person is conscious, wash out mouth with water. Call a physician immediately.
After contact with eyes: irrigate with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eye lids. Seek medical advice.
After inhalation: remove to fresh air. If breathing becomes difficult, give oxygen and call a physician.

Section V - Fire and Explosion Hazards
Suitable extinguishing media for small fires are water spray, carbon dioxide, dry chemical powder or appropriate foam. For large fires apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray. Solid streams of water may be ineffective. Special hazards: emits toxic fumes under fire conditions. Wear self-contained breathing apparatus and protective clothing.

Section VI - Handling, Storage and Disposal Information
Use only in a chemical fume-hood. Avoid inhalation of vapor and contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Wash thoroughly after handling.
Keep tightly closed. Keep away from heat and open flame. Store at -20°C.
Upon disposal dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Follow all federal, state and local environmental regulations.

Section VII - Reactivity Data
Avoid strong oxidizing agents and acids. Hazardous decomposition products are carbon monoxide, carbon dioxide and nitrogen oxides. Hazardous polymerisation will not occur.

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Section VIII - Toxicity Hazards
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.
In case of skin contact it causes irritation and it may be harmful if absorbed through the skin. It causes eye irritation and it is toxic if swallowed. Material is irritating to mucous membranes and upper respiratory tract if inhaled. Possible risk of harm to the unborn child.
LD50 oral rat: 144 mg AEC/kg. AEC contents per vial is 10 mg/ml.

Section IX - Spill or Leak Procedures
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation. Wear self-contained breathing apparatus, chemical safety goggles, rubber boots and heavy rubber gloves. Wear disposable coveralls and discard them after use. Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section X - Ecological Information
No data available.

Section XI - Transport information
UN nr. 1992, class 3, packing group III. Proper shipping name: flammable liquid, toxic n.o.s.
No marine pollutant. No inhalation packing group I.

Phosphate-citrate buffer with sodiumperborate capsules

Section I
Product:
Phosphate-citrate buffer with sodiumperborate capsules, part of AEC coloring system

Section II - Physical Data

Chemical formula/composition: N/A	Physical description: transparent capsule containing white powder.
Melting point: not available	Boiling point: not available
Specific gravity: not available	Vapor pressure: not available
Solubility in water	CAS nr.: none

Section III - Health Hazards
The classification and labeling according to EU directives indication of danger is Xi, Irritant.
Caution: Substance not yet fully tested (EU).
Risk phrase R 8-36/37/38: Contact with combustible material may cause fire. Irritating to eyes, respiratory system and skin.
Safety phrase S 26-36/37/39: In case of contact with eyes, rinse immediately with plenty of water and medical advice. Wear protective clothing, gloves and eye/face protection.

Section IV - First Aid measures
After contact with skin: wash contaminated area with soap and water.
After swallowing: if the person is conscious, wash out mouth with water. Call a physician.
After contact with eyes: irrigate with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eye lids. Seek medical advice.
After inhalation: remove to fresh air. If breathing becomes difficult, call a physician.

Section V - Fire and Explosion Hazards
Suitable extinguishing media are water spray, carbon dioxide, dry chemical powder or appropriate foam. Special hazards: emits toxic fumes under fire conditions. Wear self-contained breathing apparatus and protective clothing.

Section VI - Handling, Storage and Disposal Information
Avoid inhalation and contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.
Keep tightly closed. Store at room temperature.
Upon disposal dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Follow all federal, state and local environmental regulations.

Section VII - Reactivity Data
Avoid strong oxidizing agents. Nature of decomposition products are not known. Hazardous polymerisation will not occur.

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Section VIII - Toxicity Hazards
To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. In case of skin contact it causes irritation and it may be harmful if absorbed through the skin. It causes eye irritation and it may be harmful if swallowed. Material is irritating to mucous membranes and upper respiratory tract if inhaled.

Section IX - Spill or Leak Procedures
Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust. Sweep up, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section X - Ecological Information
No data available.

Section XI - Transport information
Non-hazardous for road, sea and air transport.

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Approved by Dr. P.H. van der Meide
Date: December 28, 2006

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