

1 Identification of substance:

- **Product name:** Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug
- **Catalog number:** 550583
- **Manufacturer/Supplier:**
BD Biosciences, Pharmingen
10975 Torreyana Road
San Diego, CA 92121-1106
Tel. (877)232-8995
- **Information department:** Technical Services
- **Emergency information:**
In case of a chemical emergency, spill, fire, exposure, or accident please call ChemTrec at (800)424-9300 or 911

2 Composition/Data on components:

- **Chemical characterization**
- **Description:** Mixture consisting of the following components.

· **Dangerous components:**

67-68-5	dimethyl sulfoxide	61.0%
20350-15-6	Brefeldin A	6.0%

3 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**
R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R 40 Limited evidence of a carcinogenic effect.
- **Classification system**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0-4)**

Health = 2
Fire = 0
Reactivity = 0**4 First aid measures**

- **General information**
Symptoms of poisoning may even occur after several hours; therefore provide medical observation for at least 48 hours after the accident.

(Contd. on page 2)

USA

Product name: Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug

(Contd. of page 1)

- **After inhalation**
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek medical advice.
In case of unconsciousness place patient on side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for 15 minutes under running water. Then consult a doctor.
- **After swallowing** If symptoms persist consult doctor.
- **Information for doctor** Show this label.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:** Wipe up with damp sponge or mop.
- **Measures for cleaning/collecting:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Additional information:**
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

- **Handling**
 - **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
 - **Information about protection against explosions and fires:** No special measures required.
- **Storage**
 - **Requirements to be met by storerooms and receptacles:** -80 C
 - **Information about storage in one common storage facility:** Store away from oxidizing agents.
 - **Further information about storage conditions:** Store in cool, dry conditions in well sealed containers.

8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **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.

(Contd. on page 3)

Product name: Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug

(Contd. of page 2)

- **Personal Protective Equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure, use a chemical fume hood or a NIOSH/MSHA-approved respirator.
- **Protection of hands:**



Chemical resistant gloves (i.e. nitrile, or equivalent).

- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing (lab coat).

9 Physical and chemical properties:

· **General Information**

Form:	Liquid Frozen
Color:	Colorless
Odor:	Characteristic

· **Change in condition**
Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined

· **Flash point:** Not applicable

· **Ignition temperature:** 270.0°C (518°F)

· **Auto igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**
Lower: 1.8 Vol %

· **Density:** Not determined

· **Solubility in / Miscibility with**
Water: Soluble

· **pH-value:** Not applicable

· **Solvent content:**
Organic solvents: 61.0 %

· **Solids content:** 0.5 %

Product name: Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug

(Contd. of page 3)

10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Materials to be avoided:** Incompatible material: strong oxidizers.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** No dangerous decomposition products known.

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
 - **on the skin:** No irritating effect.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful

12 Ecological information:

- **Ecotoxicological effects:**
- **Other information:**
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

13 Disposal considerations

- **Product:**
- **Recommendation**
Must not be disposed of with solid waste.
Dispose of material in accordance with federal (40 CFR 261), state and local requirements.
This product is not considered a RCRA hazardous waste.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to state and federal regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **DOT regulations:**
- **Hazard class:** -
- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -

(Contd. on page 5)



Printing date 03/30/2004

Reviewed on 07/25/2003

Product name: Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug

(Contd. of page 4)

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

· **Transport/Additional information:**

If a dashed line appears in the Hazard Class section for the type of transportation, this indicates the product is not regulated for transportation. However, if a Hazard Class Number is listed the product is regulated.

15 Regulations

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act)**

67-68-5 dimethyl sulfoxide

- **California Proposition 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **California Proposition 65 - Chemicals known to cause reproductive toxicity**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

- **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

- **Product related hazard informations:**

The product has been classified and marked in accordance with regulations on hazardous materials.

- **Hazard symbols:**

Xn Harmful

- **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

40 Limited evidence of a carcinogenic effect.

- **Safety phrases:**

25 Avoid contact with eyes.

(Contd. on page 6)

**Material Safety Data Sheet**
acc. to ISO/DIS 11014

Printing date 03/30/2004

Reviewed on 07/25/2003

Product name: Leukocyte Activation Cocktail (51-20421E)
Leukocyte Activation Cocktail w/GolgiPlug

(Contd. of page 5)

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

28 After contact with skin, wash immediately with plenty of water

36 Wear suitable protective clothing.

60 This material and its container must be disposed of as hazardous waste.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
NK	61.0

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

To the best of our knowledge, the information contained herein is accurate. However, neither Becton, Dickinson and Company or any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

· **Department issuing MSDS:** Safety and Environment Department

· **Contact:** Technical Service Representative

USA