

Date Prepared: 03/01/2011

Reviewed On: 02/11/2011

1 Identification of the substance/mixture and of the company/undertaking

- **Product Identifier**
- **Product Name:** Transport Reagent
(Affirm RT Transport System)
- **Catalog Number:** 446255
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
BD Diagnostic Systems
7 Loveton Circle
Sparks, MD 21152
Telephone.: (410) 771 - 0100 or (800) 638 – 8663
- **Information Department:** Technical Service
- **Emergency telephone number:**
In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems (410) 771-0100 or (800)-638-8663, or ChemTrec at (800) 424-9300.



2 Composition/information on ingredients

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

· **Dangerous Components:**

67-56-1	methanol	50.0%
67-68-5	dimethyl sulfoxide	50.0%

3 Hazards identification

- **Classification of the substance or mixture**
 - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 **T; Toxic**
R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
 -  **F; Highly flammable**
R11: Highly flammable.
 - **Information concerning particular hazards for human and environment:**
This product contains dimethylsulfoxide freely penetrates the skin and may carry dissolved chemicals into the body.
 - **Classification system:**
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
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- **Label elements**
 - **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with regulations on hazardous materials.
 - **Code letter and hazard designation of product:**
T Toxic
F Highly flammable
 - **Hazard-determining components of labelling:**
methanol
dimethyl sulfoxide

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· **Risk phrases:**

Dimethylsulfoxide freely penetrates the skin and may carry dissolved chemicals into the body.

11 Highly flammable.

23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

· **Safety phrases:**

4 Keep away from living quarters.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately.

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

· **NFPA ratings (scale 0-4)**



Health = 2

Fire = 3

Reactivity = 0

· **HMIS ratings (scale 0-4)**



Health = 2

Fire = 3

Reactivity = 0

4 First aid measures

- **General information** Immediately remove contaminated clothing.
- **After inhalation** Supply fresh air or oxygen; and immediately call for a doctor.
- **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** Call a doctor immediately.
- **Information for doctor** Show this product label or this MSDS.

5 Firefighting measures

- **Suitable extinguishing agents**
CO₂, ABC multipurpose dry chemical or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Use respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Wipe up with damp sponge or mop.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders).
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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7 Handling and storage

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
 - Keep respiratory protective device available.
- **Storage**
- **Requirements to be met by storerooms and receptacles:** < 30 °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/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

67-56-1 methanol

PEL	260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm
	Long-term value: 260 mg/m ³ , 200 ppm
	Skin
TLV	Short-term value: 328 mg/m ³ , 250 ppm
	Long-term value: 262 mg/m ³ , 200 ppm
	Skin; BEI

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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.
 - 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).

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9 Physical and chemical properties

· General Information

· Appearance:

Form: Liquid
Color: Clear
Odor: Characteristic

· Change in condition

Melting point/Melting range: Not determined
Boiling point/Boiling range: 64°C (147 °F)

· **Flash point:** 11°C (52 °F)

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

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower: 1.8 Vol %
Upper: 44.0 Vol %

· **Vapor pressure at 20°C (68 °F):** 128.0 hPa (96 mm Hg)

· **Density at 20°C (68 °F):** 0.945 g/cm³

· Solubility in / Miscibility with

Water: Soluble

· Solvent content:

Organic solvents: 100.0 %

10 Stability and reactivity

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Incompatible materials:** Incompatible material: strong oxidizers.

· Hazardous decomposition products:

Sulfur oxides (SO_x)
Carbon monoxide (CO) and carbon dioxide (CO₂)
Formaldehyde

11 Toxicological information

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

67-56-1 methanol

Oral	LD50	5628 mg/kg (rat)
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· Primary irritant effect:

· **on the skin:** No irritating effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

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- **Subacute to chronic toxicity:** Target organs: respiratory tract, eyes, kidneys, and skin.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Toxic

12 Ecological information

- **Acquatic toxicity:** No further relevant information available.
- **Ecotoxicological effects:**
- **Other information:**
The ecological effects have not been thoroughly investigated, but currently none have been identified.
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
Must not be disposed of with solid waste.
Dispose of material in accordance with federal (40 CFR 261.3), state and local requirements.
RCRA hazardous waste - RCRA # F003 (ignitable, toxic).
- **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:** 3
- **Identification number:** UN1993
- **Packing group:** II
- **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methanol)
- **Label** 3

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· **Remarks:** This product can be transported using the "small quantity" exception. This package conforms to 49 CFR 173.4 for domestic highway or rail transport only. The Hazard Class, Identification number, and Packing group listed above is for informational purposes only.

· **Land transport ADR/RID (cross-border)**



· **ADR/RID class:** 3 (F1) Flammable liquids
· **Danger code (Kemler):** 33
· **UN-Number:** 1993
· **Packaging group:** II
· **UN proper shipping name:** 1993 FLAMMABLE LIQUID, N.O.S. (methanol)

· **Maritime transport IMDG:**



· **IMDG Class:** 3
· **UN Number:** 1993
· **Label** 3
· **Packaging group:** II
· **EMS Number:** F-E,S-E
· **Marine pollutant:** No
· **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methanol)
· **Remarks:** Limited quantity

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3
· **UN/ID Number:** 1993
· **Label** 3
· **Packaging group:** II
· **Proper shipping name:** FLAMMABLE LIQUID, N.O.S. (methanol)
· **Remarks:** This product can be transported using the exception: Dangerous Goods in Excepted Quantities. The Hazard class, Identification number, and Packing group listed above is for informational purposes only.

15 Regulatory information

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

None of the ingredients is listed.

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

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

67-56-1 | methanol

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

All ingredients are listed.

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

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **California Proposition 65 - Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

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 can not guarantee that these are the only hazards that exist.

· **Department issuing MSDS:**

Environmental, Health & Safety

Created by Michael J. Spinazzola

· **Contact:** Technical Service Representative

USA