

1 Identification of substance:· **Product details:**

- **Product name:** Transport Reagent
(Affirm RT Transport System)
- **Catalog number:** 446255

· **Manufacturer/Supplier:**

BD Diagnostic Systems
7 Loveton Circle
Sparks, MD 21152
Tel: (410) 771-0100 or (800) 638-8663

· **Information department:** Technical Services· **Emergency information:**

In case of a chemical emergency, spill, fire, exposure, or accident contact BD Diagnostic Systems at (410)771-0100 or (800)638-8663, or ChemTrec at (800)424-9300.

2 Composition/Data on components:· **Chemical characterization**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

67-56-1	methanol	50.0%
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3 Hazards identification· **Hazard description:**

T+ Very toxic

F Highly flammable

· **Information pertaining to particular dangers for man and environment**

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

R 11 Highly flammable.

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

R 39 Danger of very serious irreversible effects.

R 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

· **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 = 3

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.

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- **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.

5 Fire fighting measures

- **Suitable extinguishing agents**
CO₂, extinguishing powder 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).
- **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:**
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 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:**

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

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· **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. latex, nitrile, or equivalent).

· **Eye protection:** Safety glasses

9 Physical and chemical properties:

· **General Information**

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 %



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

11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

67-56-1 methanol

Oral LD50 5628 mg/kg (rat)

67-68-5 dimethyl sulfoxide

Oral LD50 14500 mg/kg (rat)

· **Primary irritant effect:**

- **on the skin:** No irritating effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:** Target organs: respiratory tract, eyes, kidneys, and skin.

· **Additional toxicological information:**

Toxic

The product shows the following dangers according to internally approved calculation methods for preparations:

12 Ecological information:

- **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.

Must adhere to state and federal regulations.

Disposal must be made according to the regulations found in 40 CFR 261.

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.

USA

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14 Transport information

· DOT regulations:



- **Hazard class:** 3
- **Identification number:** UN1993
- **Packing group:** II
- **Proper shipping name (technical name):** FLAMMABLE LIQUID, N.O.S. (methanol)
- **Label:** 3
- **Remarks:** Limited quantity

· Land transport ADR/RID (cross-border)



- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1993
- **Packaging group:** II
- **Description of goods:** 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)

· 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:** Limited quantity

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15 Regulations

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

None of the ingredients is listed.

· **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**

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:**

T+ Very toxic

F Highly flammable

· **Hazard-determining components of labelling:**

methanol

dimethyl sulfoxide

· **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.

39 Danger of very serious irreversible effects.

39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

· **Safety phrases:**

27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

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

43 In case of fire, use water or powdered extinguishing agent

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.

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· *National regulations*

· *Technical instructions (air):*

Class	Share in %
III	50.0
NK	50.0

· *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 BD 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