

1 Identification of substance:

- **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% |
| 67-68-5 | dimethyl sulfoxide | 50.0% |

3 Hazards identification

· **Hazard description:**



T Toxic
F Highly flammable

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

This product contains 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.

· **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 = 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.
- **Information for doctor** Show this product label or this MSDS.
- **The following symptoms may occur:**
 - Headache
 - Dizziness

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:** Use respiratory protective device.

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.

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· 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).

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 % |
|---------------|-----------|

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| | |
|--|-------------------------|
| 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/cm ³ |
| · 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.
- **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)
Formaldehyde

11 Toxicological information

- **Acute toxicity:**

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

67-56-1 methanol

| | | |
|------|------|------------------|
| Oral | LD50 | 5628 mg/kg (rat) |
|------|------|------------------|

- **Primary irritant effect:**
- **on the skin:** No irritating effect.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

Toxic

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

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.

USA

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13 Disposal considerations

- **Product:**
- **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
- **Remarks:** This product can be transported using the "small quantity" exception. This package conforms to 49 CFR 173.4. 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
- **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

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- **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 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 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.

· **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.

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Material Safety Data Sheet
acc. to ISO/DIS 11014

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· Product related hazard information:

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

· Hazard symbols:

T Toxic

F Highly flammable

· Hazard-determining components of labeling:

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.

· Safety phrases:

4 Keep away from living quarters.

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

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.

· National regulations

· Technical instructions (air):

| Class | Share in % |
|-------|------------|
| III | 50.0 |
| NK | 50.0 |

16 Other information:

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· Department issuing MSDS: Safety and Environment Department

· Contact: Technical Service Representative