



0.05% TRIFLUOROTOLUENE IN BENZENE-D6

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/04/2015

Revision date: 21/11/2019

Supersedes: 08/04/2015

Version: 1.1

DLM-78

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

1.1. Product identifier

Product form : Mixtures
Product name : 0.05% TRIFLUOROTOLUENE IN BENZENE-D6
Product code : DLM-78
Other means of identification : Also applicable to:
DLM-78A
DLM-78C
DLM-78G

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Professional use
Industrial/Professional use spec : For professional use only

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Cambridge Isotope Laboratories, Inc.
50 Frontage Road
Andover, MA 01810
USA

USA: 1-800-322-1174 Int: 1-978-749-8000
cilsales@isotope.com www.isotope.com

Emergency telephone number

Emergency numbers:

Chemtrec: 1-800-424-9300 (24 hours)
International: 1-703-741-5970 (24 hours)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225
Skin Irrit. 2 H315
Eye Irrit. 2 H319
Muta. 1B H340
Carc. 1A H350
STOT SE 3 H335
Asp. Tox. 1 H304

Full text of hazard classes and H-statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Carc.Cat.1; R45
Carc.Cat.1; R49
Carc.Cat.3; R40
Muta.Cat.1; R46
F; R11
T; R25
Xn; R20/21
Xn; R65
Xi; R36/37/38
R19

Full text of R-phrases: see section 16

GHS-US classification

Flam. Liq. 2 H225
Skin Irrit. 2 H315

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Eye Irrit. 2A H319
Muta. 1B H340
Carc. 1A H350
STOT SE 3 H335
Asp. Tox. 1 H304

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Blood, Eyes, Female reproductive system, Bone marrow.

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

Hazardous ingredients

Hazard statements (CLP)

Precautionary statements (CLP)

EUH phrases

- : Danger
- : BENZENE-D6 (D, 99.5%)
- : H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H340 - May cause genetic defects (in contact with skin, if inhaled, if swallowed)
H350 - May cause cancer (in contact with skin, if inhaled, if swallowed)
- : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P261 - Avoid breathing fume, mist, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
- : EUH019 - May form explosive peroxides

GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

Hazard statements (GHS-US)

Precautionary statements (GHS-US)

- : Danger
- : H225 - Highly flammable liquid and vapor
H304 - May be fatal if swallowed and enters airways
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H340 - May cause genetic defects (Dermal, Inhalation, oral)
H350 - May cause cancer (Dermal, Inhalation, oral)
- : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/Bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing fume, mist, spray, vapors.
P264 - Wash Both hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear eye protection, face protection, protective clothing, protective gloves.
P301+P310 - If swallowed: Immediately call a poison center or doctor

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P302+P352 - If on skin: Wash with plenty of water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention.
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see Hazard pictograms (CLP) on this label)
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P370+P378 - In case of fire: Use Alcohol resistant foam, Carbon dioxide, Dry chemical, Water spray to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to Comply with applicable regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Directive 67/548/EEC
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3 (EC-No.) 214-061-8 (EC Index-No.) 601-020-00-8 (Unlabeled)	99.937	F; R11 Carc.Cat.1; R45 Muta.Cat.1; R46 Carc.Cat.2; R49 Xn; R65 Xi; R38
TRIFLUOROTOLUENE UNLABELED	(CAS-No.) 98-08-8 (EC-No.) 202-635-0 (EC Index-No.) 602-056-00-7	0.063	F; Xi; R10-36/37/38

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3 (EC-No.) 214-061-8 (EC Index-No.) 601-020-00-8 (Unlabeled)	99.937	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1A, H350 Asp. Tox. 1, H304
TRIFLUOROTOLUENE UNLABELED	(CAS-No.) 98-08-8 (EC-No.) 202-635-0 (EC Index-No.) 602-056-00-7	0.063	Flam. Liq. 2, H225 Aquatic Chronic 2, H411

Name	Product identifier	%	GHS-US classification
BENZENE-D6 (D, 99.5%)	(CAS-No.) 1076-43-3	99.937	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Muta. 1B, H340 Carc. 1A, H350 Asp. Tox. 1, H304

Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Flush eye with water for 15 minutes. Get medical attention.
First-aid measures after ingestion	: Rinse mouth. Immediately call a poison center or doctor/physician.

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause cancer by inhalation. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. May be fatal if swallowed and enters airways.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: For small fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. 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. Cool all affected containers with flooding quantities of water.
------------------------------	--

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapor.
Explosion hazard	: May form flammable/explosive vapor-air mixture.
Reactivity	: Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

5.3. Advice for firefighters

Firefighting instructions	: Wear a self contained breathing apparatus.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
------------------	---

6.1.1. For non-emergency personnel

Emergency procedures	: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
----------------------	--

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

For containment	: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations.
-----------------	---

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable.
Precautions for safe handling	: No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Use only outdoors or in a well-ventilated area.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment.
Storage conditions	: Store at room temperature away from light and moisture.
Incompatible materials	: Heat sources.

7.3. Specific end use(s)

No additional information available

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

0.05% TRIFLUOROTOLUENE IN BENZENE-D6		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	20.00000000 ppm Liver damage. Confirmed animal carcinogen with unknown relevance to humans. Danger of cutaneous absorption.
BENZENE-D6 (D, 99.5%) (1076-43-3)		
Italy - Portugal - USA ACGIH	ACGIH TWA (ppm)	0.50000000 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
Italy - Portugal - USA ACGIH	ACGIH STEL (ppm)	2.5 ppm Leukemia Substances for which there is a Biological Exposure Index or Indices.
USA OSHA	OSHA PEL (TWA) (ppm)	10 ppm

0.05% TRIFLUOROTOLUENE IN BENZENE-D6	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	144 mg/m ³
Long-term - systemic effects, inhalation	73 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	10 mg/l
PNEC aqua (intermittent, freshwater)	10 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	37 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.153 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	2700 mg/l

DNEL : 21 mg/m³ Skin contact - Long-term systemic effects

8.2. Exposure controls

Personal protective equipment : Safety glasses. Gloves. Protective clothing. Respiratory protection of the dependent type.



Hand protection : Wear suitable protective clothing and gloves.
Eye protection : Wear safety glasses with side shields (or goggles) and a face shield.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : Wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

The properties listed below are for the solvent, the main component of this mixture.

Physical state	: Liquid
Appearance	: Liquid
Molecular mass	: 84.15 g/mol (Labeled)
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: 5.5 °C (41.9 °F) - lit
Freezing point	: No data available
Boiling point	: 80 °C (176 °F) - lit
Flash point	: -11 °C (12.2 °F) - closed cup
Auto-ignition temperature	: 562 °C (1,044 °F)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapor
Vapor pressure	: 221.3 hPa (166.0 mmHg) at 37.7°C (99.9°F), 99.5 hPa (74.6 mmHg) at 20°C (68°F)
Relative vapor density at 20 °C	: No data available

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative density	: No data available
Specific gravity / density	: 0.95 g/ml at 25 °C (77 °F) (Labeled)
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosion limits	: 1.3 - 8 % (V)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.2. Chemical stability

Two years after receipt of order if stored as above. Re-QC after two years.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. Bases. Halogens. Metallic salts. Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

0.05% TRIFLUOROTOLUENE IN BENZENE-D6	
LD50 oral rat	2990 mg/kg
LD50 dermal rabbit	8263 mg/kg
LC50 inhalation rat (mg/l)	44700 mg/m ³ female - 4 h
ATE CLP (oral)	2990.000 mg/kg body weight
ATE CLP (dermal)	8263.000 mg/kg body weight
ATE CLP (vapors)	44.700 mg/l/4h
ATE CLP (dust, mist)	44.700 mg/l/4h

BENZENE-D6 (D, 99.5%) (1076-43-3)	
LD50 oral rat	2990 mg/kg
LD50 dermal rabbit	8263 mg/kg
LC50 inhalation rat (mg/l)	44700 mg/m ³ female - 4 h
ATE CLP (oral)	2990.000 mg/kg body weight
ATE CLP (dermal)	8263.000 mg/kg body weight
ATE CLP (vapors)	44.700 mg/l/4h
ATE CLP (dust, mist)	44.700 mg/l/4h

TRIFLUOROTOLUENE UNLABELED (98-08-8)	
LC50 inhalation rat (mg/l)	≥ 70810 mg/m ³

Skin corrosion/irritation	: Causes skin irritation. Skin - rabbit - Skin irritation
Serious eye damage/irritation	: Causes serious eye irritation. Eyes - rabbit - Eye irritation
Respiratory or skin sensitization	: Not available
Germ cell mutagenicity	: May cause genetic defects (in contact with skin, if inhaled, if swallowed).
Carcinogenicity	: May cause cancer (in contact with skin, if inhaled, if swallowed).
Reproductive toxicity	: Not classified

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Specific target organ toxicity – single exposure	: May cause respiratory irritation.
Specific target organ toxicity – repeated exposure	: Not classified
Aspiration hazard	: May be fatal if swallowed and enters airways.
Potential Adverse human health effects and symptoms	: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. Dizziness. Headache. Nausea. Narcosis. Inhalation of high concentrations of benzene may have an initial stimulatory effect on the central nervous system characterized by exhilaration, nervous excitation and/or giddiness, depression, drowsiness, or fatigue. The victim may experience tightness in the chest, breathlessness, and loss of consciousness. Tremors, convulsions and death due to respiratory paralysis or circulatory collapse can occur in a few minutes to several hours following severe exposures. Aspirations of small amounts of liquid immediately causes pulmonary edema and hemorrhage of pulmonary disease. Direct skin contact may cause erythema. Repeated or prolonged skin contact may result in drying, scaling dermatitis or development of secondary skin infections. The chief target organ is the hematopoietic system. Bleeding from the nose, gums, or mucous membranes and the development of purpuric spots, pancytopenia, leukopenia, thrombocytopenia, aplastic anemia and leukemia may occur as the condition progresses. The bone marrow may appear normal, aplastic or hyperplastic and may not correlate with peripheral blood-forming tissues. The onset of effects of prolonged benzene exposure may be delayed for months or years after the actual exposure has ceased. Blood disorders.
IARC group	: 1
Symptoms/effects after inhalation	: May cause cancer by inhalation. May cause respiratory irritation.
Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes eye irritation.
Symptoms/effects after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard. May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

0.05% TRIFLUOROTOLUENE IN BENZENE-D6	
LC50 fish 1	5.9 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96 h
LC50 other aquatic organisms 1	230 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h
EC50 Daphnia 1	22 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
LC50 fish 2	15 - 32 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 96 h
LC50 other aquatic organisms 2	9.2 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	29 mg/l <i>Pseudokirchneriella subcapitata</i> (Green algae) - 72 h
LOEC (acute)	17.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
NOEC (chronic)	10.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d

BENZENE-D6 (D, 99.5%) (1076-43-3)	
LC50 fish 1	5.9 mg/l <i>Oncorhynchus mykiss</i> (Rainbow trout) - 96 h
LC50 other aquatic organisms 1	230 mg/l <i>Lepomis macrochirus</i> (Bluegill) - 96 h
EC50 Daphnia 1	22 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
LC50 fish 2	15 - 32 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 96 h
LC50 other aquatic organisms 2	9.2 mg/l <i>Daphnia magna</i> (Water flea) - 48 h
ErC50 (algae)	29 mg/l <i>Pseudokirchneriella subcapitata</i> (Green algae) - 72 h
LOEC (acute)	17.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d
NOEC (chronic)	10.2 mg/l <i>Pimephales promelas</i> (Fathead minnow) - 7 d

TRIFLUOROTOLUENE UNLABELED (98-08-8)	
LC50 fish 1	2 mg/l <i>Pimephales promelas</i> (fathead minnow) - 96 h
EC50 Daphnia 1	3.48 mg/l <i>Daphnia</i> - 24 h

12.2. Persistence and degradability

0.05% TRIFLUOROTOLUENE IN BENZENE-D6	
Persistence and degradability	Readily biodegradable.

BENZENE-D6 (D, 99.5%) (1076-43-3)	
Persistence and degradability	Readily biodegradable.

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

TRIFLUOROTOLUENE UNLABELED (98-08-8)

Persistence and degradability	Not available.
-------------------------------	----------------

12.3. Bioaccumulative potential

TRIFLUOROTOLUENE UNLABELED (98-08-8)

Bioaccumulative potential	Not available.
---------------------------	----------------

12.4. Mobility in soil

TRIFLUOROTOLUENE UNLABELED (98-08-8)

Ecology - soil	Not available.
----------------	----------------

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Waste materials should be disposed of under conditions which meet Federal, State, and local environmental control regulations.

Waste treatment methods : Burn in a chemical incinerator equipped with an afterburner and a scrubber, but use extra care in ignition as this material may be pyrophoric, highly flammable or explosive. Attention : national and/or local laws and regulations may preclude the use of this method.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No.(DOT) : 1114
DOT NA no. UN1114

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Benzene
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
Marine pollutant : No

14.3. Additional information

Other information : No supplementary information available.

Overland transport

Packing group (ADR) : II

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Class (ADR) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1
Hazard labels (ADR) : 3 - Flammable liquids



Orange plates :

Tunnel restriction code (ADR) : D/E
Limited quantities (ADR) : 1l
EAC : 3WE
APP : A(fl)
Excepted quantities (ADR) : E2

Transport by sea

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"
MFAG-No : 130

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L
(49 CFR 173.27)
DOT Quantity Limitations Cargo aircraft only (49 : 60 L
CFR 175.75)
Civil Aeronautics Law : Flammable liquids

14.4. Environmental hazards

Other information : No supplementary information available.

14.5. Special precautions for user

14.6. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

0.05% TRIFLUOROTOLUENE IN BENZENE-D6	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.
BENZENE-D6 (D, 99.5%) (1076-43-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 302 Threshold Planning Quantity (TPQ)	Not subject to reporting requirements of the United States SARA Section 302.
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	Not subject to reporting requirements of the United States SARA Section 313.

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.2. International regulations

CANADA

No additional information available

15.2.1. National regulations

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

Listed on the Canadian NDSL (Non-Domestic Substances List)

BENZENE-D6 (D, 99.5%) (1076-43-3)

Listed on the Canadian NDSL (Non-Domestic Substances List)

15.3. US State regulations

0.05% TRIFLUOROTOLUENE IN BENZENE-D6()

U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	Yes
State or local regulations	U.S. - Pennsylvania - RTK (Right to Know) List U.S. - New Jersey - Right to Know Hazardous Substance List

BENZENE-D6 (D, 99.5%) (1076-43-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	

BENZENE-D6 (D, 99.5%) (1076-43-3)

State or local regulations

U.S. - Pennsylvania - RTK (Right to Know) List
U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : This product is not radioactive. The data given for this product are those of the corresponding unlabeled compound, unless specifically indicated otherwise. Health and safety data for labeled compounds are generally not available, but are assumed to be similar or identical to the corresponding unlabeled compound.

Full text of R-, H- and EUH-phrases:

Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Flam. Liq. 2	Flammable liquids Category 2
Muta. 1B	Germ cell mutagenicity Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation
H340	May cause genetic defects
H350	May cause cancer
H411	Toxic to aquatic life with long lasting effects
EUH019	May form explosive peroxides
R11	Highly flammable
R19	May form explosive peroxides
R20/21	Harmful by inhalation and in contact with skin

0.05% TRIFLUOROTOLUENE IN BENZENE-D6

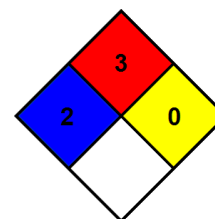
DLM-78

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 and according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

R25	Toxic if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R45	May cause cancer
R46	May cause heritable genetic damage
R49	May cause cancer by inhalation
R65	Harmful: may cause lung damage if swallowed
F	Highly flammable
T	Toxic
Xi	Irritant
Xn	Harmful

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

- Health : 2 Moderate Hazard - Temporary or minor injury may occur
- Flammability : 3 Serious Hazard
- Physical : 0 Minimal Hazard

CIL Mixture SDS

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product