

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 8/16/2023 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : 2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE

Product code : ULM-9370-S

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Cambridge Isotope Laboratories, Inc.

50 Frontage Rd

01810

ANDOVER, MA, 01810

USA

T 1-800-322-1174

cilsales@isotope.com - www.isotope.com

1.4. Emergency telephone number

Emergency number : 1-703-741-5970

Chemtrec 1-800-424-9300 24 hours

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation

Reproductive toxicity Category 2 H361 Suspected of damaging the unborn child. (Inhalation, Dermal,

oral)

Specific target organ toxicity - Single exposure, Category 3, Narcosis H336 May cause drowsiness or dizziness

Specific target organ toxicity (repeated exposure) Category 2 H373 May cause damage to organs (central nervous system, eyes,

heart, kidneys, liver) through prolonged or repeated exposure

(Inhalation, Dermal, oral)

Aspiration hazard Category 1 H304 May be fatal if swallowed and enters airways

Hazardous to the aquatic environment – Acute Hazard Category 2 H401 Toxic to aquatic life

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : H225 - Highly flammable liquid and vapor

H304 - May be fatal if swallowed and enters airways

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Precautionary statements (GHS US)

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H315 - Causes skin irritation

H336 - May cause drowsiness or dizziness

H361 - Suspected of damaging the unborn child. (Inhalation, Dermal, oral)

H373 - May cause damage to organs (central nervous system, eyes, heart, kidneys, liver)

through prolonged or repeated exposure (Inhalation, Dermal, oral)

H401 - Toxic to aquatic life

: 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, 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/ventilating/lighting equipment.

P242 - Use only non-sparking tools.

P243 - Take precautionary measures against static discharge.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash hands, forearms and face thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 - If swallowed: Immediately call a poison center or doctor.

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.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P312 - Call a poison center or doctor if you feel unwell.

P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P331 - Do NOT induce vomiting.

P332+P313 - If skin irritation occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P370+P378 - In case of fire: Use media other than water 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 hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
TOLUENE UNLABELED	CAS-No.: 108-88-3	99.9884	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 2, H401

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general

: IF exposed or concerned: Get medical advice/attention.

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

Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Wash with plenty of soap and water, Get immediate medical advice/attention. Get medical advice/attention. Specific treatment (see Hazard pictograms (CLP) on this label).

First-aid measures after eye contact

Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion

: Immediately call a poison center or doctor/physician.

4.2. Most important symptoms and effects (acute and delayed)

Potential Adverse human health effects and symptoms

: Symptoms/effects. IF INHALED: lungs. Pulmonary irritation. Pulmonary edema. Chest pain. central nervous system. 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. Stomach - Irregularities - Based on Human Evidence. Lung irritation, chest pain, pulmonay edema, Inhalation sudies have shown the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotom in animals.

Symptoms/effects

Suspected of damaging fertility. Suspected of damaging the unborn child. (in contact with skin, if inhaled, if swallowed). Causes damage to organs (brain, kidneys, liver, urinary bladder) (in contact with skin, if inhaled, if swallowed).

Symptoms/effects after inhalation

Harmful if inhaled. May cause drowsiness or dizziness.

Symptoms/effects after skin contact

Harmful in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.

Symptoms/effects after eye contact Symptoms/effects after ingestion

: May cause eye irritation.

: May be fatal if swallowed and enters airways. Risk of lung edema.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Dry powder. Dry sand. Dry chemical. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a heavy water stream.

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5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Do not enter fire area without proper protective equipment, including respiratory protection.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing. Wear recommended personal protective equipment.

Other information : Use water spray to cool exposed surfaces.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Flammable liquids. No open flames. No smoking. Eliminate every possible source of ignition.

Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures : Use personal protective equipment as required. Ensure adequate air ventilation. Avoid breathing

vapors, mist, gas. Eliminate all ignition sources if safe to do so. Evacuate unnecessary personnel. Special attention should be given to low areas/pits where flammable vapors can

accumulate.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer

to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent liquid from entering sewers, watercourses, underground or low areas. Do not allow to enter drains or water courses. Do not discharge the product into the environment.

6.3. Methods and material for containment and cleaning up

For containment : Dike and contain spill.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters. This material and its container must be disposed of in a safe way, and as per local

legislation.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid all eye and skin contact and do not breathe vapor and mist. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Handle empty

containers with care because residual vapors are flammable.

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Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	Ground/bond container and receiving equipment. Use only non-sparking tools. Take
	precautionary measures against static discharge. Flammable vapors may accumulate in the
	container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe

dust, fume, gas, spray, vapors, mist. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. No open flames. No smoking. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid

breathing dust, fume, gas, mist, spray, vapors.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash hands, forearms

and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Proper grounding procedures to avoid static electricity should be

followed. Use explosion-proof Lighting equipment, ventilating equipment.

Storage conditions : Store at room temperature away from light and moisture.

Incompatible materials : Heat sources.
Storage area : Under inert gas.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA [ppm]	20 ppm USA. ACGIH Threshold Limit Values (TLV)	
Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	375 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL TWA [2]	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL STEL [1]	560 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL STEL [2]	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL C [ppm]	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2	
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2	
Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	375 mg/m³ USA. NIOSH Recommended Exposure Limits	
NIOSH REL TWA [ppm]	100 ppm USA. NIOSH Recommended Exposure Limits	

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2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE		
NIOSH REL STEL	560 mg/m³ USA. NIOSH Recommended Exposure Limits	
NIOSH REL STEL [ppm]	150 ppm USA. NIOSH Recommended Exposure Limits	
TOLUENE UNLABELED (108-88-3)		
USA - ACGIH - Occupational Exposure Limits		
ACGIH OEL TWA [ppm]	20 ppm USA. ACGIH Threshold Limit Values (TLV)	
Remark (ACGIH)	Visual impairment. Female reproductive. Pregnancy loss. 2015 Adoption. Substances for which there is a Biological Exposure Index or Indices (see BEI® section). Not classifiable as a human carcinogen.; Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0300 mg/l Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: Toluene Value: 0.0200 mg/l Biological specimen: In blood Remarks: Prior to last shift of workweek Basis: ACGIH - Biological Exposure Indices (BEI); Component: Toluene CAS-No.: 108-88-3 Parameters: o-Cresol Value: 0.3000 mg/g Biological specimen: Urine Remarks: End of shift (As soon as possible after exposure ceases) Basis: ACGIH - Biological Exposure Indices (BEI)	
USA - OSHA - Occupational Exposure Limits		
OSHA PEL TWA [1]	375 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL TWA [2]	100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL STEL [1]	560 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL STEL [2]	150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants 1910.1000	
OSHA PEL C [ppm]	300 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2	
Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	500 ppm USA. Occupational Exposure Limits (OSHA) - Table Z-2	
Remark (OSHA)	OSHA PEL (TWA) - 200 ppm - USA. Occupational Exposure Limits (OSHA) - Table Z-2. Remarks: Z37.12-1967	
USA - NIOSH - Occupational Exposure Limits		
NIOSH REL TWA	375 mg/m³ USA. NIOSH Recommended Exposure Limits	
NIOSH REL TWA [ppm]	100 ppm USA. NIOSH Recommended Exposure Limits	
NIOSH REL STEL	560 mg/m³ USA. NIOSH Recommended Exposure Limits	
NIOSH REL STEL [ppm]	150 ppm USA. NIOSH Recommended Exposure Limits	

8.2. Appropriate engineering controls

Appropriate engineering controls : Wash hands and other exposed areas with mild soap and water before eating, drinking or

smoking and when leaving work.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Protective clothing. Protective goggles. Self-contained breathing apparatus.

Materials for prot	ective clothing:
Wear suitable prote	ective clothing and gloves

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Hand protection:

Wear suitable protective clothing and gloves

Eye protection:

Wear eye protection. Chemical goggles or face shield with safety glasses

Skin and body protection:

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

Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Approved supplied air respirator. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.

Personal protective equipment symbol(s):









SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: LiquidAppearance: Liquid.Color: ColorlessOdor: aromatic

Odor threshold: No data availablepH: No data availableMelting point: -93 °C (-135 °F)Freezing point: No data available

Boiling point : 110 - 111 °C (230 - 232 °F) Flash point : 4 °C (39.2 °F) - closed cup

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : Highly flammable liquid and vapor.

Vapor pressure : 29.1 hPa (21.8 mmHg) at 20.0 °C (68.0 °F)

Relative vapor density at 20°C : No data available Relative density : No data available

Density : 0.865 g/ml at 25 °C (77 °F)

Molecular mass 92.14 g/mol Solubility Water: 0.5 g/l Partition coefficient n-octanol/water (Log Pow) : No data available : 535 °C (995 °F) Auto-ignition temperature Decomposition temperature : No data available : No data available Viscosity, kinematic Viscosity, dynamic : No data available **Explosion limits** 1.2 - 7% (V) Explosive properties : No data available Oxidizing properties No data available

9.2. Other information

No additional information available

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SECTION 10: Stability and reactivity

10.1. Reactivity

Vapors may form flammable mixture with air. Highly flammable liquid and vapor.

10.2. Chemical stability

Stable if stored under recommended conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 Inhalation - Rat	12,500 - 28,800 mg/m3 - 4 h
ATE US (dermal)	12196 mg/kg body weight

/ · · = 00 (doa.)	12.00 mg/ng 200, morgin
TOLUENE UNLABELED (108-88-3)	
LD50 oral rat	> 5580 mg/kg
LD50 dermal rabbit	12196 mg/kg
LC50 Inhalation - Rat	12,500 - 28,800 mg/m3 - 4 h
ATE US (dermal)	12196 mg/kg body weight
ATE US (vapors)	12.5 mg/l/4h
ATE US (dust, mist)	12.5 mg/l/4h

 Skin corrosion/irritation
 : Causes skin irritation.

 Serious eye damage/irritation
 : Not classified

 Respiratory or skin sensitization
 : Not classified

 Germ cell mutagenicity
 : Not classified

 Carcinogenicity
 : Not classified

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE

IARC group 3 - Not classifiable

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TOLUENE UNLABELED (108-88-3)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Suspected of damaging the unborn child. (Inhalation, Dermal, oral).
STOT-single exposure	: May cause drowsiness or dizziness.
TOLUENE UNLABELED (108-88-3)	
STOT-single exposure	May cause drowsiness or dizziness.
STOT-repeated exposure	: May cause damage to organs (central nervous system, eyes, heart, kidneys, liver) through prolonged or repeated exposure (Inhalation, Dermal, oral).
TOLUENE UNLABELED (108-88-3)	
STOT-repeated exposure	May cause damage to organs (kidneys, liver, urinary bladder, brain) through prolonged or repeated exposure (Dermal, Inhalation, oral).
Aspiration hazard	: May be fatal if swallowed and enters airways.
Viscosity, kinematic	: No data available
Potential Adverse human health effects and symptoms	: Symptoms/effects. IF INHALED: lungs. Pulmonary irritation. Pulmonary edema. Chest pain. central nervous system. 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. Stomach - Irregularities - Based on Human Evidence. Lung irritation, chest pain, pulmonay edema, Inhalation sudies have shown the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotom in animals.
Symptoms/effects	: Suspected of damaging fertility. Suspected of damaging the unborn child. (in contact with skin, if inhaled, if swallowed). Causes damage to organs (brain, kidneys, liver, urinary bladder) (in contact with skin, if inhaled, if swallowed).
Symptoms/effects after inhalation	: Harmful if inhaled. May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Harmful in contact with skin. Causes skin irritation. Repeated exposure to this material can result in absorption through skin causing significant health hazard.
Symptoms/effects after eye contact	: May cause eye irritation.
Symptoms/effects after ingestion	: May be fatal if swallowed and enters airways. Risk of lung edema.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life.
Ecology - water : Toxic to aquatic life.

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE		
EC50 - Crustacea [1]	8 mg/l Daphnia magna (Water flea) - 24h	
LC50 - Fish [2]	7.63 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h	
EC50 - Crustacea [2]	6 mg/l Daphnia magna (Water flea) - Immobilization - 48 h	
ErC50 algae	245 mg/l Chlorella vulgaris (Fresh water algae) - 24 h	
ErC50 other aquatic plants	10 mg/l Pseudokirchneriella subcapitata (Green algae) - 24 h	
NOEC (chronic)	5.44 mg/l Pimephales promelas (fathead minnow) - 7 d	
TOLUENE UNLABELED (108-88-3)		
EC50 - Crustacea [1]	8 mg/l Daphnia magna (Water flea) - 24h	
LC50 - Fish [2]	7.63 mg/l Oncorhynchus mykiss (Rainbow trout) - 96 h	
EC50 - Crustacea [2]	6 mg/l Daphnia magna (Water flea) - Immobilization - 48 h	

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TOLUENE UNLABELED (108-88-3)	
ErC50 algae	245 mg/l Chlorella vulgaris (Fresh water algae) - 24 h
ErC50 other aquatic plants	10 mg/l Pseudokirchneriella subcapitata (Green algae) - 24 h
NOEC (chronic)	5.44 mg/l Pimephales promelas (fathead minnow) - 7 d

12.2. Persistence and degradability

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE	
Persistence and degradability Readily biodegradable.	
TOLUENE UNLABELED (108-88-3)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE		
BCF - Fish [1] 0.05 mg/l Leuciscus idus (Golden orfe) - 3 d		
Bioconcentration factor (BCF REACH) 90		
TOLUENE UNLABELED (108-88-3)		
BCF - Fish [1] 0.05 mg/l Leuciscus idus (Golden orfe) - 3 d		
Bioconcentration factor (BCF REACH)	90	

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other adverse effects

: Toxic to aquatic life with long lasting effects. Disposal must be done according to official regulations. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Product/Packaging disposal recommendations : Offer surplus and non-recyclabl

: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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

Ecology - waste materials : Dispose of as unused product. Hazardous waste due to toxicity.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN1294 UN-No. (TDG) : UN1294

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UN-No. (IMDG) : 1294 UN-No. (IATA) : 1294

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Toluene
Proper Shipping Name (TDG) : TOLUENE
Proper Shipping Name (IMDG) : TOLUENE
Proper Shipping Name (IATA) : Toluene

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3
Hazard labels (DOT) : 3



TDG

Transport hazard class(es) (TDG) : 3
Hazard labels (TDG) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Hazard labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3



14.4. Packing group

Packing group (DOT) : II
Packing group (TDG) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Other information : No supplementary information available.

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14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1294

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
DOT Quantity Limitations Passenger aircraft/rail (49 : 5 L

CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

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.

TDG

UN-No. (TDG) : UN1294
Explosive Limit and Limited Quantity Index : 1 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger : 5 L

Carrying Railway Vehicle Index

Emergency Response Guide (ERG) Number : 130

IMDG

 Limited quantities (IMDG)
 : 1 L

 Excepted quantities (IMDG)
 : E2

 Packing instructions (IMDG)
 : P001

 IBC packing instructions (IMDG)
 : IBC02

 Tank instructions (IMDG)
 : T4

 Tank special provisions (IMDG)
 : TP1

EmS-No. (Fire) : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS

EmS-No. (Spillage) : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS

Stowage category (IMDG) : B Flash point (IMDG) : 7°C c.c.

Properties and observations (IMDG) : Colourless liquid with a benzene-like odour. Flashpoint: 7°C c.c. Explosive limits: 1.27% to

7% Immiscible with water.

MFAG-No : 130

IATA

PCA Excepted quantities (IATA) : E2 Y341 PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) : 1L : 353 PCA packing instructions (IATA) PCA max net quantity (IATA) : 5L CAO packing instructions (IATA) : 364 CAO max net quantity (IATA) 60L ERG code (IATA) 3L

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

Not applicable

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SECTION 15: Regulatory information

15.1. US Federal regulations

2,4,6-TRIBROMOANISOLE UNLABELED 100 UG/ML IN TOLUENE		
SARA Section 311/312 Hazard Classes Fire hazard		
	Immediate (acute) health hazard	
	Delayed (chronic) health hazard	

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
TOLUENE UNLABELED	108-88-3	Present	Active	

TOLUENE UNLABELED (108-88-3)		
CERCLA RQ	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Delayed (chronic) health hazard	

15.2. International regulations

CANADA

TOLUENE UNLABELED (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

TOLUENE UNLABELED (108-88-3)					
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)	Maximum allowable dose level (MADL)
No	Yes	No	No	7000 μg/day	

Component	State or local regulations
` ,	U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List; U.S Massachusetts - Right To Know List

SECTION 16: Other information

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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 H-phrases		
H225	Highly flammable liquid and vapor	
H304	May be fatal if swallowed and enters airways	
H315	Causes skin irritation	
H336	May cause drowsiness or dizziness	
H361	Suspected of damaging fertility or the unborn child	
H373	May cause damage to organs through prolonged or repeated exposure	
H401	Toxic to aquatic life	

Safety Data Sheet (SDS), USA

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.