

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifiers

Product name : Toluene- α , α , α -d3

CAS-No. : 1124-18-1

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

Identified uses : Laboratory chemicals, Manufacture of substances

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Flammable liquids (Category 2)
Reproductive toxicity (Category 2)
Aspiration hazard (Category 1)
Specific target organ toxicity - repeated exposure (Category 2)
Skin irritation (Category 2)
Specific target organ toxicity - single exposure (Category 3)

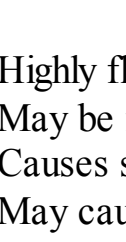
Classification according to EU Directives 67/548/EEC or 1999/45/EC

Highly flammable. Possible risk of harm to the unborn child. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Harmful: may cause lung damage if swallowed. Irritating to skin. Vapours may cause drowsiness and dizziness.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word

Danger

Hazard statement(s)

H225 Highly flammable liquid and vapour.
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.

Precautionary statement(s)

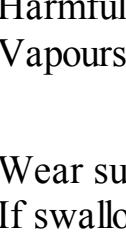
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P281 Use personal protective equipment as required.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.

Supplemental Hazard Statements

none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)



R-pharse(s)

R11 Highly flammable.
R38 Irritating to skin.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 Possible risk of harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

S-pharse(s)

S36/37 Wear suitable protective clothing and gloves.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Methyl-d3-benzene

Formula : C7D3H5

Molecular Weight : 95,16 g/mol

Component

Concentration

Toluene- α , α , α -d3

CAS-No. 1124-18-1

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4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Lung irritation, chest pain, pulmonary edema, Inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotum in animals.

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

For small (incipient) 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

Carbon oxides

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and 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.

6.2 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 materials for containment and cleaning up

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 (see section 13).

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store under inert gas. hygroscopic

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance Form: liquid
b) Odour no data available
c) Odour Threshold no data available
d) pH no data available
e) Melting/freezing point Melting point/range: -93 °C - lit.
f) Initial boiling point and boiling range 110 °C - lit.
g) Flash point 4 °C
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits Upper explosion limit: 7 %(V)
Lower explosion limit: 1,2 %(V)
k) Vapour pressure 29,1 hPa at 20,0 °C
l) Vapour density no data available
m) Relative density 0,895 g/mL at 25 °C
n) Water solubility no data available
o) Partition coefficient: n-octanol/water no data available
p) Autoignition temperature 535,0 °C
q) Decomposition temperature no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available

9.2 Other safety information

no data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - > 5.580 mg/kg
LC50 Inhalation - rat - 4 h - 12.500 - 28.800 mg/m3
LD50 Dermal - rabbit - 12.196 mg/kg

Skin corrosion/irritation

Skin - rabbit - Skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - rabbit - Severe eye irritation - 24 h

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Toluene- α , α , α -d3)

Reproductive toxicity

Damage to fetus possible
Suspected human reproductive toxicant

Experiments have shown reproductive toxicity effects in male and female laboratory animals.

Specific target organ toxicity - single exposure

May cause damage to organs.
May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Potential health effects

Inhalation

Harmful if inhaled. Causes respiratory tract irritation. Vapours may cause drowsiness and dizziness.

Ingestion

Harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

Skin

Harmful if absorbed through skin. Causes skin irritation.

Eyes

Causes serious eye irritation.

Signs and Symptoms of Exposure

Lung irritation, chest pain, pulmonary edema, Inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotum in animals.

Additional Information

RTECS: Not available

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish LC50 - Lepomis macrochirus (Bluegill) - 74,00 - 340,00 mg/l - 96 h
LC50 - Oncorhynchus mykiss (rainbow trout) - 7,63 mg/l - 96 h
NOEC - Pimephales promelas (fathead minnow) - 5,44 mg/l - 7 d
LOEC - Pimephales promelas (fathead minnow) - 8,04 mg/l - 7 d
Toxicity to daphnia and other aquatic invertebrates. EC50 - Daphnia magna (Water flea) - 8,00 mg/l - 24 h

Immobilization EC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h

Toxicity to algae EC50 - Chlorella vulgaris (Fresh water algae) - 245,00 mg/l - 24 h

EC50 - Pseudokirchneriella subcapitata (green algae) - 10,00 mg/l - 24 h

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

Bioaccumulation Leuciscus idus (Golden orfe) - 3 d -0,05 mg/l
Bioconcentration factor (BCF): 94

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

14.1 UN-Number

ADR/RID: 1294

IMDG: 1294

IATA: 1294

14.2 UN proper shipping name

ADR/RID: TOLUENE

IMDG: TOLUENE

IATA: Toluene

14.3 Transport hazard class(es)

ADR/RID: 3

IMDG: 3

IATA: 3

14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for users

no data available

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

no data available

15.2 Chemical Safety Assessment

no data available

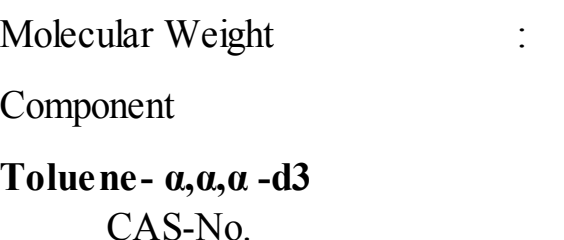
16. OTHER INFORMATION

Further information

For R&D use only. Not for drug, household or other uses.

WARRANTY:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.



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