

1 - Product and Company Information

ProductName 2,3,7,8-TETRACHLORODIBENZO-P-DIOXIN
1X1ML TOL 10UG/ML

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

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

3 - Composition/Information on Ingredients

| Product Name | CAS # | EC no | Annex I |
|---|-----------|-----------|---------|
| 2,3,7,8-TETRACHLORODIBENZO-P-DIOXI N 10UG/ML IN TOLUENE | None | None | None |
| Ingredient Name | Percent | CAS # | EC no |
| 2,3,7,8-TETRACHLORODIBENZO.001 O-P-DIOXIN Symbols: T+ R-Phrases: 45-26/27/28 | 1746-01-6 | 217-122-7 | None |

May cause cancer. Very toxic by inhalation, in contact with skin and if swallowed.

TOLUENE > 99.9 108-88-3 203-625-9 601-021-00-3

Repr. Cat.3

Symbols: F-Xn

R-Phrases: 11-38-48/20-63-65-67

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

Molecular Weight 92.14 AMU

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, do not induce vomiting; call a physician immediately.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.

Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

EXPOSURE LIMITS

| Country Source | Type | Value |
|----------------|-------|-----------|
| Poland | NDS | 100 MG/M3 |
| Poland | NDSch | 350 MG/M3 |
| Poland | NDSP | - |

EXPOSURE LIMITS - DENMARK

| Source | Type | Value |
|--------|------|--------------------|
| OEL | TWA | 94 mg/m3 25 ppm |

Remarks: H, toluene

EXPOSURE LIMITS - GERMANY

| Source | Type | Value |
|----------|------|---------------------|
| TRGS 900 | OEL | 190 mg/m3 50 ppm |

Remarks: 4

Remarks: Y

EXPOSURE LIMITS - NORWAY

| Source | Type | Value |
|--------|------|--------------------|
| OEL | OEL | 94 mg/m3 25 ppm |

Remarks: H

Remarks: toluene

EXPOSURE LIMITS - SWEDEN

| Source | Type | Value |
|------------|------------|---------------------|
| LLV (Level | LLV (Level | 200 mg/m3 50 ppm |

Remarks: H

Remarks: toluene

EXPOSURE LIMITS - SWITZERLAND

| Source | Type | Value |
|---------|---------|---------------------|
| OEL OEL | OEL OEL | 190 mg/m3 50 ppm |

Remarks: M C H*

Remarks: toluene

EXPOSURE LIMITS - UNITED KINGDOM

| Source | Type | Value |
|---------|---------|---------------------|
| OEL OEL | OEL OEL | 191 mg/m3 50 ppm |

Remarks: toluene

| OEL | STEL | Value |
|-----|------|----------------------|
| OEL | STEL | 574 mg/m3 150 ppm |

Remarks: Skin

Remarks: toluene

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and

approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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. Hand Protection: Compatible chemical-resistant gloves. Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

| |
|---|
| Result: May cause congenital malformation in the fetus. |
|---|

12 - Ecological Information

No data available.

| | | |
|-----------------------|--|--------------------|
| pH | N/A | |
| BP/BP Range | 110.0 - 111.0 °C | 760 mmHg |
| MP/MP Range | - 93.0 °C | |
| Flash Point | 4 °C | Method: closed cup |
| Flammability | N/A | |
| Autoignition Temp | 536 °C | |
| Oxidizing Properties | N/A | |
| Explosive Properties | N/A | |
| Explosion Limits | Lower: 1 % Upper: 7 % | |
| Vapor Pressure | 22 mmHg | 20 °C |
| SG/Density | 0.865 g/cm3 | |
| Partition Coefficient | Log Kow: 2.73 | |
| Viscosity | < 0.001 Pas | 25 °C |
| Vapor Density | 3.2 g/l | |
| Saturated Vapor Conc. | N/A | |
| Evaporation Rate | N/A | |
| Bulk Density | N/A | |
| Decomposition Temp. | N/A | |
| Solvent Content | N/A | |
| Water Content | N/A | |
| Surface Tension | 28.93 mN/m | 20 °C |
| Conductivity | N/A | |
| Miscellaneous Data | N/A | |
| Solubility | Solubility in Water: Insoluble. Other Solvents: , CHLOROFORM, GLACIAL , ACETONE, DIETHYL ETHER SOL | |

10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

Exposure can cause: Lung irritation, chest pain, and edema which may be fatal. Inhalation studies on toluene have demonstrated the development of inflammatory and ulcerous lesions of the penis, prepuce, and scrotum in animals.

ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: May cause eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

TARGET ORGAN INFORMATION

Brain. Liver. Kidneys. Bladder.

CONDITIONS AGGRAVATED BY EXPOSURE

May cause nervous system disturbances.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - TERATOGEN

Result: May cause congenital malformation in the fetus.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to of this material. Burn in a chemical incinerator equipped afterburner and scrubber but exert extra care in igniting material is highly flammable. Observe all federal, state, local environmental regulations.

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14 - Transport Information

RID/ADR

UN#: 1294
Class: 3
PG: II
Proper Shipping Name: Toluene solution

IMDG

UN#: 1294
Class: 3
PG: II
Proper Shipping Name: Toluene solution
Marine Pollutant: No
Severe Marine Pollutant: No

IATA

UN#: 1294
Class: 3
PG: II
Proper Shipping Name: Toluene solution
Inhalation Packing Group I: No

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 601-021-00-3

INDICATION OF DANGER: F-Xn

Highly Flammable. Harmful.

R-PHRASES: 11-38-48/20-63-65-67

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

S-PHRASES: 36/37-62

Wear suitable protective clothing and gloves. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

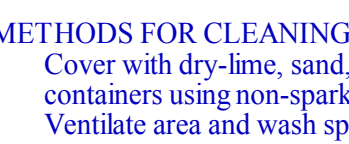
COUNTRY SPECIFIC INFORMATION

Germany

WGK: 2

Self-Classification

16 - Other Information



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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.