# SAFETY DATA SHEET

## 1. Identification

**Product identifier** **Triclosan Related Compounds Mixture A**

**Other means of identification**

**Catalog number** 1682217

**Recommended use** Specified quality tests and assay use only.

**Recommended restrictions** Not for use as a drug. Not for administration to humans or animals.

**Manufacturer/Importer/Supplier/Distributor information**

**Manufacturer**

**Company name** U. S. Pharmacopeia

**Address** 12601 Twinbrook Parkway
Rockville
MD
20852-1790
United States

**Telephone** RS Technical Services 301-816-8129

**Website** www.usp.org

**E-mail** RSTECH@usp.org

**Emergency phone number** CHEMTREC within US & Canada 1-800-424-9300
CHEMTREC outside US & Canada +1 703-527-3887

## 2. Hazard(s) identification

| | | |
|---|---|---|
| **Physical hazards** | Flammable liquids | Category 2 |
| **Health hazards** | Acute toxicity, oral | Category 3 |
| | Acute toxicity, dermal | Category 3 |
| | Acute toxicity, inhalation | Category 3 |
| | Specific target organ toxicity, single exposure | Category 1 |

**Environmental hazards** Not classified.

**OSHA defined hazards** Not classified.

**Label elements**

**Signal word** Danger

**Hazard statement** Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Causes damage to organs.

**Precautionary statement**

**Prevention** Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

**Response** In case of fire: Use appropriate media to extinguish. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a poison center/doctor if you feel unwell. Wash contaminated clothing before reuse. If swallowed: Immediately call a poison center/doctor. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/.

**Storage** Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal** Dispose of contents/container in accordance with local/regional/national/international regulations.

**Hazard(s) not otherwise classified (HNOC)** Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion.

**Supplemental information** None.

## 3. Composition/information on ingredients

**Mixture**

| Chemical name | Common name and synonyms | CAS number | % |
|---|---|---|---|
| Methanol | | 67-56-1 | 90 - 100 |
| 1,3,7-TRICHLORODIBENZODIOXIN | | 67028-17-5 | < 0.1 |
| 2,4,8-TRICHLORODIBENZOFURAN | | 54589-71-8 | < 0.1 |
| 2,8-DICHLORODIBENZOFURAN | | 5409-83-6 | < 0.1 |
| 2,8-Dichlorodibenzo-p-dioxin | | 67478-04-0 | < 0.1 |
| Other components below reportable levels | | | < 1 |

## 4. First-aid measures

**Inhalation**
If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Do not use mouth-to-mouth method if victim inhaled the substance. Call a physician if symptoms develop or persist.

**Skin contact**
Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. Get medical attention if irritation develops and persists. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Most important symptoms/effects, acute and delayed**
None known.

**Indication of immediate medical attention and special treatment needed**
Provide general supportive measures and treat symptomatically. Treatment of methanol overdose may include the following: Do not induce vomiting because of the potential for CNS depression and aspiration. Acidosis may not develop until 18 to 48 hours post-ingestion. Temporize with IV sodium bicarbonate; monitor arterial blood gasses to guide dosing. Patients with metabolic acidosis need antidotal therapy (ethanol or fomepizole) and hemodialysis. Monitor for hypotension, dysrhythmias, respiratory depression, hypoglycemia, electrolyte disturbances, and hypoxia. Monitor arterial blood gasses, electrolytes, acid-base status, CBC (especially MCV) and renal function tests. Monitor blood levels of methanol and formate. [Poisindex 2005]

**General information**
Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

## 5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
By heating and fire, harmful vapors/gases may be formed.

**Special protective equipment and precautions for firefighters**
Wear suitable protective equipment.

**Fire fighting equipment/instructions**
As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing. Use water spray to cool unopened containers.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
Highly flammable liquid and vapor.

## 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Wear appropriate personal protective equipment. Avoid inhalation of vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Absorb spillage with suitable absorbent material. For waste disposal, see section 13 of the SDS. Remove sources of ignition. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Clean surface thoroughly to remove residual contamination.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

## 7. Handling and storage

**Precautions for safe handling** As a general rule, when handling USP Reference Standards, avoid all contact and inhalation of dust, mists, and/or vapors associated with the material. Clean equipment and work surfaces with suitable detergent or solvent after use. After removing gloves, wash hands and other exposed skin thoroughly. Select and use containment devices and personal protective equipment based on a risk assessment of material potency and exposure potential.

**Conditions for safe storage, including any incompatibilities** Store in tight container as defined in the USP-NF. This material should be handled and stored per label instructions to ensure product integrity.

## 8. Exposure controls/personal protection

**Occupational exposure limits**

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

| Components | Type | Value |
|---|---|---|
| Methanol (CAS 67-56-1) | PEL | 260 mg/m3<br>200 ppm |

**US. ACGIH Threshold Limit Values**

| Components | Type | Value |
|---|---|---|
| Methanol (CAS 67-56-1) | STEL | 250 ppm |
| | TWA | 200 ppm |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components | Type | Value |
|---|---|---|
| Methanol (CAS 67-56-1) | STEL | 325 mg/m3<br>250 ppm |
| | TWA | 260 mg/m3<br>200 ppm |

**Biological limit values**

**ACGIH Biological Exposure Indices**

| Components | Value | Determinant | Specimen | Sampling Time |
|---|---|---|---|---|
| Methanol (CAS 67-56-1) | 15 mg/l | Methanol | Urine | * |

* - For sampling details, please see the source document.

**Exposure guidelines**

**US - Tennessee OELs: Skin designation**

Methanol (CAS 67-56-1) Can be absorbed through the skin.

**US ACGIH Threshold Limit Values: Skin designation**

Methanol (CAS 67-56-1) Can be absorbed through the skin.

**US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants**

METHYL ALCOHOL; METHANOL (CAS 67-56-1) Can be absorbed through the skin.

**US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).**

Methanol (CAS 67-56-1) Skin designation applies.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Methanol (CAS 67-56-1) Can be absorbed through the skin.

**Appropriate engineering controls** For laboratory operations, use good technique and limit open handling. Control exposures to below the occupational exposure level (if available). Select and use containment devices and personal protective equipment based on a risk assessment of exposure potential. Cover all containers for solutions and slurries while being transferred.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields, chemical splash goggles, or full face shield, if necessary. Base the choice of protection on the job activity and potential for contact with eyes or face. An emergency eye wash station should be available.

**Skin protection**

**Hand protection** Wear nitrile or other impervious gloves if skin contact is possible. When the material is dissolved or suspended in an organic solvent, wear gloves that provide protection against the solvent.

**Other** Wear lab coat. Base the choice of skin protection on the job activity, potential for skin contact and solvents and reagents in use. Do not wear protective garments in common areas (e.g., cafeterias) or out-of-doors.

**Respiratory protection** Respirators are generally not required for laboratory operations. Chose respiratory protection appropriate to the task and the level of existing engineering controls.

| | |
|---|---|
| **Thermal hazards** | Wear appropriate thermal protective clothing, when necessary. |
| **General hygiene considerations** | Handling practices in this SDS are recommendations for laboratory use of reference standards. Procedures for any other uses or quantities should be determined after an appropriate assessment. |

## 9. Physical and chemical properties

| | |
|---|---|
| **Appearance** | Appearance descriptions are general information and not specific to any USP lot. |
| **Physical state** | Liquid. |
| **Form** | Liquid. |
| **Color** | Colorless. Clear. |
| **Odor** | Not available. |
| **Odor threshold** | Not available. |
| **pH** | Not available. |
| **Melting point/freezing point** | Not available. |
| **Initial boiling point and boiling range** | Not available. |
| **Flash point** | Not available. |
| **Evaporation rate** | Not available. |
| **Flammability (solid, gas)** | Not applicable. |
| **Upper/lower flammability or explosive limits** | |
| **Flammability limit - lower (%)** | Not available. |
| **Flammability limit - upper (%)** | Not available. |
| **Explosive limit - lower (%)** | Not available. |
| **Explosive limit - upper (%)** | Not available. |
| **Vapor pressure** | Not available. |
| **Vapor density** | Not available. |
| **Relative density** | Not available. |
| **Solubility(ies)** | |
| **Solubility (water)** | Not available. |
| **Auto-ignition temperature** | Not available. |
| **Decomposition temperature** | Not available. |
| **Viscosity** | Not available. |

## 10. Stability and reactivity

| | |
|---|---|
| **Reactivity** | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| **Chemical stability** | Material is stable under normal conditions. |
| **Possibility of hazardous reactions** | No dangerous reaction known under conditions of normal use. |
| **Conditions to avoid** | Flames.. Sparks. Contact with incompatible materials. |
| **Incompatible materials** | Strong oxidizing agents. |
| **Hazardous decomposition products** | Irritating and/or toxic fumes or gases. Emits toxic fumes under fire conditions. |

## 11. Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation** | Toxic if inhaled. |
| **Skin contact** | Toxic in contact with skin. |
| **Eye contact** | Knowledge about health hazard is incomplete. |
| **Ingestion** | Toxic if swallowed. |
| **Symptoms related to the physical, chemical, and toxicological characteristics** | Central nervous system effects. Difficulty breathing. Visual disturbances. Seizures. Metabolic acidosis. Gastrointestinal disturbances. |

**Information on toxicological effects**

| | |
|---|---|
| **Acute toxicity** | Toxic if inhaled. Toxic in contact with skin. Toxic if swallowed. |

| Components | Species | Test Results |
|---|---|---|
| Methanol (CAS 67-56-1) | | |
| **Acute** | | |
| **Dermal** | | |
| LD50 | Rabbit | 17100 mg/kg |
| | | 15800 mg/kg |
| **Inhalation** | | |
| *Vapor* | | |
| LC50 | Rat | 130.7 mg/l, 4 Hours |
| | | 128.2 mg/l, 4 Hours |
| **Oral** | | |
| LD50 | Rat | 1187 - 2769 mg/kg |

**Skin corrosion/irritation** Knowledge about health hazard is incomplete.

**Serious eye damage/eye irritation** Knowledge about health hazard is incomplete.

**Local effects**

| | |
|---|---|
| Methanol | Eye irritation<br>Result: Negative.<br>Species: Rabbit<br>Skin irritation<br>Result: Negative.<br>Species: Rabbit |

**Respiratory or skin sensitization**

**Respiratory sensitization** Knowledge about health hazard is incomplete.

**Skin sensitization** Knowledge about health hazard is incomplete.

| | |
|---|---|
| Methanol | Guinea pig maximization test<br>Result: Negative. |

**Germ cell mutagenicity** Knowledge about mutagenicity is incomplete.

**Mutagenicity**

| | |
|---|---|
| Methanol | Ames test (Salmonella typhimurium)<br>Result: Negative (+/- activation)<br>Mutagenicity, Chromosomal aberration assays in yeast and grasshoppers<br>Result: Positive. |

**Carcinogenicity** Knowledge about carcinogenicity is incomplete.

| | |
|---|---|
| Methanol | 10 - 1000 ppm Carcinogenicity<br>Result: Negative.<br>Species: Rat<br>Test Duration: 18 months<br>Carcinogenicity, 25 mL/twice daily. One tumor out of 80 specimens;.<br>Species: Mouse<br>Test Duration: 50 weeks |

**IARC Monographs. Overall Evaluation of Carcinogenicity**

| | |
|---|---|
| 2,4,8-TRICHLORODIBENZOFURAN (CAS 54589-71-8) | 3 Not classifiable as to carcinogenicity to humans. |
| 2,8-DICHLORODIBENZOFURAN (CAS 5409-83-6) | 3 Not classifiable as to carcinogenicity to humans. |

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity** Knowledge about health hazard is incomplete.

**Reproductivity**

| | |
|---|---|
| Methanol | 20000 ppm Reproductivity, Increased incidence of anomalies and maternal effects at high doses.<br>Species: Rat<br>Reproductivity, Behavioral effects in offspring; increased incidence of anomalies; maternal toxicity.<br>Species: Rat<br>Reproductivity, High doses increased fetal resorptions and malformations, including neural, cranial, and ocular defects.<br>Species: Mouse |

**Specific target organ toxicity - single exposure** Causes damage to organs.

**Specific target organ toxicity - repeated exposure** Knowledge about health hazard is incomplete.

**Aspiration hazard** Knowledge about health hazard is incomplete.

## 12. Ecological information

**Ecotoxicity**

| Components | | Species | Test Results |
|---|---|---|---|
| Methanol (CAS 67-56-1) | | | |
| **Aquatic** | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | > 10000 mg/l, 48 hours |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | > 100 mg/l, 96 hours |

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential**

**Octanol/water partition coefficient log Kow**

| | |
|---|---|
| Methanol | -0.77 |

**Mobility in soil** No data available.

**Other adverse effects** The product contains volatile organic compounds which have a photochemical ozone creation potential.

## 13. Disposal considerations

**Disposal instructions** Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 F
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

**DOT**

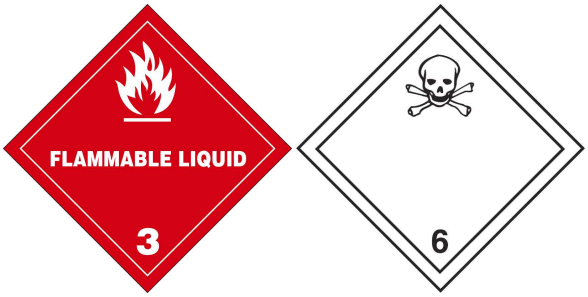
**UN number** UN1230
**UN proper shipping name** Methanol >99% Solution
**Transport hazard class(es)**
**Class** 3
**Subsidiary risk** 6.1
**Packing group** II

**IATA**

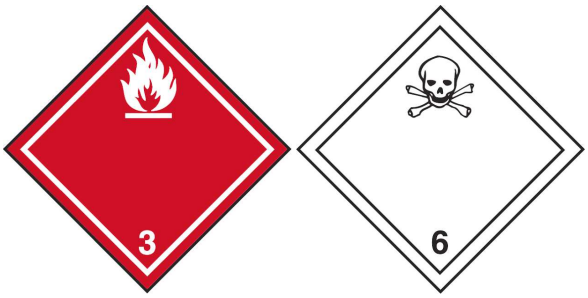
**UN number** UN1230
**UN proper shipping name** Methanol >99% Solution
**Transport hazard class(es)**
**Class** 3
**Subsidiary risk** 6.1
**Packing group** II
**Other information**
**Passenger and cargo aircraft** Allowed with restrictions.
**Cargo aircraft only** Allowed with restrictions.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not established.

**DOT**




**IATA**




**General information** It is the shipper's responsibility to determine the correct transport classification at the time of shipment.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

| | |
|---|---|
| 1,3,7-TRICHLORODIBENZODIOXIN (CAS 67028-17-5) | Listed. |
| 2,4,8-TRICHLORODIBENZOFURAN (CAS 54589-71-8) | Listed. |
| Methanol (CAS 67-56-1) | Listed. |

**SARA 304 Emergency release notification**

Not regulated.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance**

Not listed.

**SARA 311/312 Hazardous chemical** Yes

**SARA 313 (TRI reporting)**

| Chemical name | CAS number | % by wt. |
|---|---|---|
| Methanol | 67-56-1 | 90 - 100 |

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

1,3,7-TRICHLORODIBENZODIOXIN (CAS 67028-17-5)
2,4,8-TRICHLORODIBENZOFURAN (CAS 54589-71-8)
Methanol (CAS 67-56-1)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

**US state regulations**

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

| | |
|---|---|
| 1,3,7-TRICHLORODIBENZODIOXIN (CAS 67028-17-5) | Listed: October 1, 1992 |
| 2,4,8-TRICHLORODIBENZOFURAN (CAS 54589-71-8) | Listed: October 1, 1992 |

2,8-DICHLORODIBENZOFURAN (CAS 5409-83-6) Listed: October 1, 1992

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

Methanol (CAS 67-56-1) Listed: March 16, 2012

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

1,3,7-TRICHLORODIBENZODIOXIN (CAS 67028-17-5)
2,4,8-TRICHLORODIBENZOFURAN (CAS 54589-71-8)
Methanol (CAS 67-56-1)

**International Inventories**

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|---|---|---|
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | No |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | No |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 05-16-2005

**Version #** 01

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