



**1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER**

**PRODUCT IDENTIFIER:** TOYOCAT-DT  
**MANUFACTURER:** TOSOH SPECIALTY CHEMICALS USA, Inc.  
**ADDRESS:** 1720 Windward Concourse, Suite 125  
Alpharetta, Georgia 30005

**PHONE:** 1-770-442-9501

**EMERGENCY PHONE:** CHEMTREC 1-800-424-9300 OR 1-703-527-3887

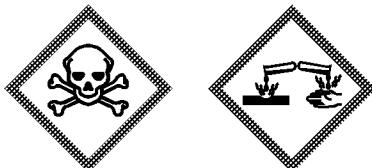
**RECOMMENDED USE:** General industrial products

**2. HAZARDS IDENTIFICATION**

**GHS CLASSIFICATION**

Flammability	Category 4
Acute toxicity	
Oral:	Category 4
Dermal:	Category 3
Skin corrosion/irritation	Category 1B
Serious eye damage/eye irritation	Category 1

**HAZARD SYMBOL:**



**SIGNAL WORD:**

**DANGER**

**HAZARD STATEMENTS:**

Harmful if swallowed.

Toxic in contact with skin.  
Causes severe skin burns and serious eye damage.  
Combustible liquid.

**PREVENTION:**

Wear protective gloves/protective clothing/eye protection/face protection.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Use only outdoors or in a well-ventilated area.  
Wash thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Keep away from flames and hot surfaces – No smoking.



## **2. HAZARDS IDENTIFICATION (continued)**

**RESPONSE:**

If in eyes: Rinse cautiously with water for several minutes.  
Remove contact lenses, if present and easy to do.  
Continue rinsing.  
Immediately call a poison control center/doctor.  
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
Call a poison control center/doctor if you feel unwell.  
Wash contaminated clothing before reuse.  
If inhaled: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a poison control center/doctor.  
If swallowed: Rinse mouth. Do NOT induce vomiting.  
Call a poison control center/doctor if you feel unwell.  
In case of fire: Use water spray, fog, dry chemical, foam, CO<sub>2</sub> to extinguish.

**STORAGE:**

Store in a well-ventilated place. Keep cool.  
Store locked up.

**DISPOSAL:**

Dispose of contents/container in accordance with Federal and state regulations.

## **3. COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Chemical Name</u>	<u>CAS #</u>	<u>OSHA Hazardous(Y/N)</u>	<u>Concentration (%)</u>
Bis(2-dimethylaminoethyl) (methyl)amine (synonym: Pentamethyldiethylenetriamine)	3030-47-5	Y	>98

## **4. FIRST AID MEASURES**

**EYE CONTACT:**

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention if irritation.

**SKIN CONTACT:**

Remove contaminated clothing and shoes. Wash with plenty of water, for at least 15 minutes. Seek immediate medical attention. Launder contaminated clothing and shoes before re-use.



#### **4. FIRST AID MEASURES (continued)**

**INGESTION:**

Do not induce vomiting. If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended.

**INHALATION:**

If respiratory irritation or distress occurs, remove victim to fresh air. Seek immediate medical attention.

**NOTES TO PHYSICIAN:**

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

#### **5. FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA:**

Water spray, fog, dry chemical, foam, CO<sub>2</sub>

**UNUSUAL FIRE AND  
EXPLOSION HAZARDS:**

Closed containers may rupture due to buildup of pressure when exposed to extreme heat.

**SPECIAL PROTECTIVE EQUIPMENT  
FOR FIRE FIGHTERS:**

Firefighters should wear NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water.

**HAZARDOUS DECOMPOSITION**

**MATERIALS UNDER FIRE CONDITIONS:** Oxides of carbon, oxides of nitrogen, ammonia.

#### **6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS:**

Wear appropriate protective gear for the situation. (See Personal Protection Information in Section 8).

**ENVIRONMENTAL PRECAUTIONS:**

Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

**METHOD FOR CLEAN UP:**

Extinguish or remove all sources of ignition. Absorb with an inert absorbent, sweep up and place in an appropriate closed container. Clean up residual material by washing area with water. Collect washings for disposal. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.



## **7. HANDLING AND STORAGE**

**PRECAUTIONS FOR SAFE HANDLING:** Handle material with suitable protection (See Section 8). Handle with adequate ventilation. Avoid breathing vapors. Avoid contact with eyes, skin and clothing.

**VENTILATION:** General area dilution/exhaust ventilation.

**CONDITIONS FOR SAFE STORAGE:** Store upright in a cool, dry, well ventilated area out of direct sunlight. Keep away from heat, open flames and ignition sources. Keep container tightly closed. Do not reuse container.

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING MEASURES:** Set up hand-wash station and eyewash station near work area.

General area dilution/exhaust ventilation.

**EXPOSURE LIMITS:** None

### **PERSONAL PROTECTION MEASURES:**

**Respiratory protection:** When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with regulatory standards and/or industrial recommendations. Self-contained or supplied-air respiratory equipment is recommended.

**Eye protection:** Safety glasses with side shields, goggles or face shield are recommended.

**Skin protection:** Skin contact should be minimized through the use of chemical-resistant gloves and boots, and suitable protective clothing.

The following general measures should be taken when working or handling this material:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>PHYSICAL STATE:</b>	Liquid
<b>COLOR:</b>	Colorless
<b>ODOR:</b>	Ammonia-like
<b>pH:</b>	11.3 (@10% aqueous)
<b>MELTING POINT:</b>	-4F (-20C)



**9. PHYSICAL AND CHEMICAL PROPERTIES (continued)**

<b>BOILING POINT:</b>	394F (201C)
<b>FLASH POINT:</b>	167F (75C)
<b>AUTOIGNITION POINT:</b>	311F (155C)
<b>EXPLOSIVE LIMITS(Lower):</b>	No data available
<b>EXPLOSIVE LIMITS(Upper):</b>	No data available
<b>VAPOR PRESSURE:</b>	0.27 hPa @ 20C (68F)
<b>VAPOR DENSITY:</b>	6.02 (Air = 1)
<b>EVAPORATION RATE:</b>	No data available
<b>RELATIVE DENSITY:</b>	0.83
<b>SOLUBILITY IN WATER:</b>	Soluble
<b>PARTITION COEFFICIENT:</b>	-2.1 (@77F, 25C)
<b>DECOMPOSITION TEMPERATURE:</b>	No data available

**10. STABILITY AND REACTIVITY**

<b>CHEMICAL STABILITY:</b>	This material is stable under normal handling and storage conditions described in Section 7.
<b>CONDITIONS TO AVOID:</b>	Heat, open flame, sparks, direct sunlight.
<b>INCOMPATIBLE MATERIALS:</b>	Strong oxidizing agents, strong acids, copper, zinc, aluminum and their alloys.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	Oxides of carbon, oxides of nitrogen, ammonia.
<b>HAZARDOUS POLYMERIZATION:</b>	Not applicable

**11. TOXICOLOGICAL INFORMATION**

<b>EYE CORROSION/IRRITATION:</b>	Corrosive, rabbit.
<b>SKIN CORROSION/IRRITATION:</b>	Corrosive, rabbit.
<b>ACUTE TOXICITY:</b>	
<b>ACUTE ORAL TOXICITY:</b>	LD <sub>50</sub> = 1600 µl/kg, rat.
<b>ACUTE DERMAL TOXICITY:</b>	LD <sub>50</sub> = 200-1000 mg/kg, rabbit.
<b>ACUTE INHALATION TOXICITY:</b>	LC <sub>50</sub> = 290 mg/L, rat (6hr, aerosol).
<b>SKIN SENSITIZATION</b>	Negative sensitizer (guinea pig).
<b>GENETIC TOXICITY</b>	Negative in the Ames test and Chromosome Aberration test.
<b>CARCINOGENICITY:</b>	This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be "probable" or "suspected" human carcinogens.



**11. TOXICOLOGICAL INFORMATION (continued)**

<b>REPRODUCTIVE TOXICITY:</b>	In a reproductive/developmental toxicity study in the rat, the NOAEL (no-observed-adverse-effect level) was 300 mg/kg/day for reproduction. The NOAEL was 100 mg/kg/day for development. The value was established mainly on the basis of changes in post-implantation and post-natal development of pups. The increase post-implantation losses may have been influenced by maternal toxicity.
<b>STOT-SINGLE EXPOSURE:</b>	Not available.
<b>STOT-REPEATED EXPOSURE:</b>	The value of NOAEL (No Observed Adverse Effect Level) for repeated dose toxicity was established as 30 mg/kg/day. The value was established mainly on the basis of changes in biochemical parameters related to liver function and histopathology of the liver.

**12. ECOLOGICAL INFORMATION**

<b>ECOTOXICITY:</b>	96hr LC <sub>50</sub> = 157 mg/L (rainbow trout) 48hr EC <sub>50</sub> = 55 mg/L (daphnia magna) 72hr EC <sub>50</sub> = 78 mg/L (algae, growth rate)
<b>PERSISTENCE AND DEGRADABILITY:</b>	Not biodegradable.
<b>MOBILITY IN SOIL:</b>	No data available

**13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)**

<b>RESIDUAL WASTE:</b>	Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from Federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.
<b>CONTAMINATED VESSELS AND CONTAINERS:</b>	Rinse containers before disposal. Do not allow rinsate to enter the water systems. EPA Hazardous Waste = C (Corrosive)



**TOSOH SPECIALTY  
CHEMICALS USA, INC.**

## **14. TRANSPORTATION INFORMATION**

**PROPER SHIPPING NAME:** CORROSIVE LIQUID, TOXIC, N.O.S. (Bis(2-dimethylaminoethyl)(methyl)amine)  
**UN NUMBER:** UN2922  
**UN CLASS or DIVISION:** 8, 6.1  
**UN PACKING GROUP:** II  
**LABELS:** Corrosive, Toxic  
**EMERGENCY GUIDE#:** 154

## **15. REGULATORY INFORMATION**

**Inventory Status:** US (TSCA): Yes  
Canada (DSL): Yes  
EU (REACH): No  
Australia (AICS): Yes  
Japan (METI): Yes  
Korea (KECL): Yes

Where: Yes = all ingredients are listed on the inventory, Exempt = All ingredients are either on the inventory or exempt from the requirements of listing, No = Not determined, or one or more ingredients are not on the inventory and are not exempt from listing

**SARA Title III Hazard Classes:** Fire Hazard: Yes  
Reactive Hazard: No  
Release of Pressure: No  
Acute Health Hazard: Yes  
Chronic Health Hazard: No

**SARA Extremely Hazardous Substances/CERCLA Hazardous Substances:** None  
**California Proposition 65:** This product does not contain any components that are regulated under Proposition 65.

## **16. OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION AND REVISION OF THIS SDS**

### **National Fire Protection Association (“NFPA”) Hazard Ratings:**

Health: 3 (Severe)  
Flammability: 2 (Moderate)  
Reactivity: 0 (Minimal)

### **National Paint and Coatings Hazardous Materials Identification System (“HMIS”) Hazard Ratings:**

Health: 3 (Severe)  
Flammability: 2 (Moderate)  
Physical Hazard: 0 (Minimal)



**TOSOH SPECIALTY  
CHEMICALS USA, INC.**

**16. OTHER INFORMATION INCLUDING INFORMATION ON PREPARATION  
AND REVISION OF THIS SDS (continued)**

**HISTORY:**

Date previous SDS:	January 15, 2015
Date of issue:	April 20, 2016
Reasons for Revision:	PSN Description; Address

**Disclaimer:** The information set forth herein has been gathered from standard reference materials and/or TOSOH SPECIALTY CHEMICALS USA, INC and its related, subsidiary and affiliated companies' test data and is to the best knowledge and belief of TOSOH SPECIALTY CHEMICALS USA, INC and its related, subsidiary and affiliated companies, accurate and reliable. Such information is offered solely for your consideration, investigation, and verification, and is not suggested or guaranteed that the hazard precautions or procedures mentioned are the only ones that exist. TOSOH SPECIALTY CHEMICALS USA, INC and its related, subsidiary and affiliated companies make no warranties, express or implied, and expressly disclaim any and all such warranties with respect to the use of such information or the use of specific material identified herein in combination with any other material or process, and assume no responsibility therefor. TOSOH SPECIALTY CHEMICALS USA, INC and its related, subsidiary and affiliated companies make no representation or warranty, express or implied, and EXPRESSLY DISCLAIM ANY AND ALL SUCH WARRANTIES, as to the usefulness, sufficiency, MERCHANTABILITY or FITNESS FOR ANY PURPOSE whatsoever of the materials identified herein. The purchaser bears sole responsibility for testing, evaluating and determining the suitability of these materials for whatever use(s), manufacturing and refining processes, and any other such application(s) for which it intends or ultimately makes of these materials. Purchaser bears sole responsibility for obtaining any and all regulatory, legal and governmental approval necessary for such use(s).

**END OF SAFETY DATA SHEET**