



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

PRODUCT IDENTIFIER: TOYOCAT- DM70
MANUFACTURER / IMPORTER: 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

Acute toxicity
Oral: Category 4
Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 1
Sensitization – Skin Category 1
Toxic to reproduction Category 1
Specific target organ toxicity – single exposure Category 3
Specific target organ toxicity – repeat exposure Category 2

HAZARD SYMBOL:



SIGNAL WORD:

DANGER

HAZARD STATEMENTS:

Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May damage fertility or the unborn child.
May cause drowsiness or dizziness.
May cause damage to kidneys through prolonged or repeated exposure.



2. HAZARDS IDENTIFICATION (continued)

PREVENTION:

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/eye protection/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing must not be allowed out of the workplace.
Use only outdoors or in a well-ventilated area.

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): Wash with plenty of water.
If skin irritation or rash occurs: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
If swallowed: Rinse mouth.
Call a poison control center/doctor if you feel unwell.
If exposed or concerned: Get medical advice/attention.

STORAGE:

Store in a well-ventilated place. Keep container tightly closed.
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> |
|-----------------------|--------------|--------------------------------|--------------------------|
| 1,2-Dimethylimidazole | 1739-84-0 | Y | 70 |
| Ethylene glycol | 107-21-1 | Y | 30 |

4. FIRST AID MEASURES

EYE CONTACT:

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

SKIN CONTACT:

Remove contaminated clothing and shoes. Wash with plenty of water, for at least 15 minutes. Seek medical attention if skin irritation develops or persists. Launder contaminated clothing and shoes before re-use.



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4. FIRST AID MEASURES (continued)

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| 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

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| EXTINGUISHING MEDIA: | Water spray, fog, dry chemical, foam, CO ₂ |
| 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

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| 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. |



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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
Ethylene glycol (vapor) 25 ppm – ACGIH TWA, 50 ppm – ACGIH STEL

(where: TWA = Time-Weighted Average (8-hour exposure), PEL = Permissible Exposure Limit (8-hour exposure), STEL = Short-Term Exposure Limit (15-minute time-weighted average exposure))

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.

PERSONAL PROTECTION MEASURES:

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

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|-----------------------------------|----------------------------|
| PHYSICAL STATE: | Liquid |
| COLOR: | Pale yellow |
| ODOR: | Ammonia-like |
| pH: | 10.7 @ 10% aq (@68F (20C)) |
| MELTING POINT: | No data available |
| BOILING POINT: | 388-401F (1989-205C) |
| FLASH POINT: | 235F (113C) |
| AUTOIGNITION POINT: | No data available |
| EXPLOSIVE LIMITS(Lower): | No data available |
| EXPLOSIVE LIMITS(Upper): | No data available |
| VAPOR PRESSURE: | <13 Pa @ 68F (20C) |
| VAPOR DENSITY: | 2.85 (air = 1) |
| EVAPORATION RATE: | No data available |
| RELATIVE DENSITY: | 1.04 |
| SOLUBILITY IN WATER: | Soluble |
| PARTITION COEFFICIENT: | No data available |
| DECOMPOSITION TEMPERATURE: | No data available |

10. STABILITY AND REACTIVITY

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

11. TOXICOLOGICAL INFORMATION

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| EYE CORROSION/IRRITATION: | Severely irritating, rabbit. (Data for 1,2-Dimethylimidazole) |
| SKIN CORROSION/IRRITATION: | Moderately irritating, rabbit. (Data for 1,2-Dimethylimidazole) |
| ACUTE TOXICITY: | |
| ACUTE ORAL TOXICITY: | LD ₅₀ = 1300 mg/kg (approx), rat. (Data for 1,2-Dimethylimidazole) |
| ACUTE DERMAL TOXICITY: | LD ₅₀ > 200 mg/kg, rat. Data for 1,2-Dimethylimidazole) |
| ACUTE INHALATION TOXICITY: | LC ₅₀ = 12 mg/L/4hr, rat Data for 1,2-Dimethylimidazole) |
| SKIN SENSITIZATION | Positive sensitizer (Local lymph node assay). (Data for 1,2-Dimethylimidazole) |
| GENETIC TOXICITY | Not mutagenic in the Ames test (Data for 1,2-Dimethylimidazole) |



11. TOXICOLOGICAL INFORMATION (continued)

- CARCINOGENICITY:** This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be “probable” or “suspected” human carcinogens.
- REPRODUCTIVE TOXICITY:** The oral administration of 1,2-dimethylimidazole to pregnant rats from implantation to one day prior to the expected day of parturition provided evidence of maternal toxicity at the high-dose level of 360 mg/kg/day. Increased relative and absolute adrenal gland weights were also seen at this dosage. The no observed adverse effect level (NOAEL) for maternal toxicity is 120 mg/kg/day. The no observed adverse effect level (NOAEL) for prenatal developmental toxicity is 120 mg/kg/day due to the high number of post-implantation losses. Multiple external malformations were noted at the high-dose level of 360 mg/kg/day.
- STOT-SINGLE EXPOSURE:** Ethylene glycol may cause central nervous system depression and drowsiness.
- STOT-REPEATED EXPOSURE:** In a combined repeat-dose/reproductive study (OECD 422) with 1,2-Dimethylimidazole, no clinical signs of toxicity were noted during the observation period at doses up to 150 mg/kg/day. The NOAEL for ethylene glycol was determined to be 150 mg/kg/day and appears to be a threshold dose below which no renal toxicity occurs.

12. ECOLOGICAL INFORMATION

- ECOTOXICITY:** 96hr LC₅₀ = 63 mg/L (zebra fish)
48hr EC₅₀ > 100 mg/L (daphnia magna)
72hr EC₅₀ = 58 mg/L (algae, growth rate) (All data for 1,2-Dimethylimidazole)
- PERSISTENCE AND DEGRADABILITY:** Inherently biodegradable (Data for 1,2-Dimethylimidazole).
- MOBILITY IN SOIL:** No data available

13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER)

- RESIDUAL WASTE:** 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.



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13. DISPOSAL CONSIDERATION (INCLUDING CONTAINER) (continued)

CONTAMINATED VESSELS AND CONTAINERS:

Rinse containers before disposal. Do not allow rinsate to enter the water systems.
EPA Hazardous Waste = No

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: NOT REGULATED
UN NUMBER: None
UN CLASS or DIVISION: None
UN PACKING GROUP: None
LABELS: None
EMERGENCY GUIDE#: None

15. REGULATORY INFORMATION

Inventory Status: US (TSCA): Yes
Canada (DSL): Yes
EU (REACH): Yes
Australia (AICS): Yes
Japan (ENCS): 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: No
Reactive Hazard: No
Release of Pressure: No
Acute Health Hazard: Yes
Chronic Health Hazard: Yes

SARA Extremely Hazardous Substances/CERCLA Hazardous Substances: Ethylene glycol (107-21-1) (30%), TPQ=5000 pounds, 2270 kg

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: 2 (Moderate)
Flammability: 1 (Slight)
Reactivity: 0 (Minimal)



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

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

Health: 2 (Moderate)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

HISTORY:

Date previous SDS:

April 7, 2015

Date of issue:

February 24, 2023

Reasons for Revision:

Regulatory review and update. Change(s) in Section(s): 2, 11

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END OF SAFETY DATA SHEET