

Revision number: 1 Revision date: 07/06/2018

1. IDENTIFICATION

Product name: Product code:

Product use: Restrictions on use:

Company: TCI America 9211 N. Harborgate Street Portland, OR 97203 U.S.A. Telephone: +1-800-423-8616 / +1-503-283-1681 Fax: +1-888-520-1075 / +1-503-283-1987 e-mail: sales-US@TCIchemicals.com www.TCIchemicals.com

2. HAZARD(S) IDENTIFICATION

OSHA Haz Com: CFR 1910.1200: WHMIS 2015:

Signal word:

Skin Corrosion/Irritation [Category 2] Eye Damage/Irritation [Category 2A]

3,3',5,5'-Tetramethylbenzidine

For laboratory research purposes.

Not for drug or household use.

T1023

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SAFETY DATA SHEET

Hazard Statement(s):

Causes skin irritation Causes serious eye irritation

Warning!

None.

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention] [Response]

Wash hands and face thoroughly after handling. Wear protective gloves, eye protection. If on skin: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Hazards not otherwise classified: [HNOC]

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture: Components: Percent: CAS RN: Molecular Weight: Chemical Formula: Synonyms: Substance 3,3',5,5'-Tetramethylbenzidine >98.0%(HPLC)(T) 54827-17-7 240.35 C₁₆H₂₀N₂ 4,4'-Bi-2,6-xylidine , 4,4'-Diamino-3,3',5,5'-tetramethylbiphenyl , TMB

Emergency telephone number:

Chemical Emergencies: TCI America (8:00am - 5:00pm) PST +1-503-286-7624 Transportation Emergencies: Chemtrec 24-Hour +1-800-424-9300 (U.S.A.) +1-703-527-3887 (International) **Responsible department:** TCI America Environmental Health Safety and Security +1- 503-286-7624

4. FIRST-AID MEASURES				
Description of first aid measures				
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical			
Skin contact:	advice/attention if you feel unwell. Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention.			
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.			
Ingestion:	Get medical advice/attention if you feel unwell. Rinse mouth.			
Symptoms/effects:				
Acute:	Redness.			
Delayed:	No data available			
Indication of any immediate medical atte	ention:			
Not available. Notes to physician:				
No data available				
5. FIRE-FIGHTING MEASURES				
Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.			
Specific hazards arising from the chemical:	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume			
Hazardous combustion products:	These products include: Carbon oxides Nitrogen oxides			
Other specific hazards:	Closed containers may explode from heat of a fire.			
Advice for firefighters:	Wear self-contained breathing apparatus if possible.			
6. ACCIDENTAL RELEASE MEASU	RES			
Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.			
Environmental precautions:	Prevent product from entering drains.			
Methods and materials for containment	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected			
and cleaning up:	material should be promptly disposed of, in accordance with appropriate laws and regulations.			
7. HANDLING AND STORAGE				
Precautions for safe handling:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent			
5	dispersion of dust. Wash hands and face thoroughly after handling.			
	Use a local exhaust if dust or aerosol will be generated.			
Conditions for safe storage, including a	Avoid contact with skin, eyes and clothing.			
Storage conditions:	Keep container tightly closed. Store in a cool and dark place.			
C	Store under inert gas.			
	Store away from incompatible materials such as oxidizing agents.			
Packaging material:	Light-sensitive Air-sensitive Comply with laws.			
8. EXPOSURE CONTROLS / PERSC	NAL PROTECTION			
Appropriate engineering controls:	Follow safe industrial engineering/laboratory practices when handling any chemical. Install a clos system or local exhaust as possible so that workers should not be exposed directly. Also install s			
	shower and eye bath.			
Personal protective equipment				
Respiratory protection:	Dust respirator. Follow local and national regulations.			
Hand protection:	Protective aloves.			

Protective gloves. Safety glasses. A face-shield, if the situation requires. Protective clothing. Protective boots, if the situation requires. Hand protection: Eye protection: Skin and body protection:

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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Colour: Odour: Odor threshold: Odour threshold:	Solid Crystal - Powder White - Yellowish gray No data available No data available No data available		
Melting point/freezing point:	170°C (338°F)	pH:	No data available
Boiling point/range:	No data available	Vapour pressure:	No data available.
Decomposition temperature:	No data available	Vapour density:	No data available
Relative density:	No data available	Dynamic Viscosity:	No data available
Kinematic viscosity:	No data available		
Log Pow:	No data available	Evaporation rate(Butyl Acetate=1):	No data available
Flash point: Flammability(solid, gas):	No data available No data available	Autoignition temperature: Flammability or explosive limits:	No data available
		Lower:	No data available
		Upper:	No data available
Solubility(ies):			
[Water]	Insoluble		
[Other solvents]			
Very soluble:	Methanol		

10. STABILITY AND REACTIVITY

Reactivity: Chemical stability: Possibility of hazardous reactions: Incompatible materials: Hazardous decomposition products: No data available Stable under proper conditions. No special reactivity has been reported. Oxidizing agents Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx)

11. TOXICOLOGICAL INFORMATION

RTECS Number: DV2300000

Acute Toxic ipr-mus LD5	city: 0:135 mg/kg		orl-qal LD50:>31	6 mg/kg	
Skin corros No data ava	ion/irritation: ilable				
Serious eye No data ava	e damage/irritation: ilable				
Respiratory No data ava	v or skin sensitization: ilable				
	m cell mutagenicity: -mus-ipr 112500 ug/kg dna-esc 20 umol/L				
Carcinogen No data ava					
IARC:	No data available	NTP:	No data available	OSHA:	No data available
Reproducti No data ava					
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Target organ(s):

No data available

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12. ECOLOGICAL INFORMATION

Ecotoxicity: Fish: Crustacea: Algae:	No data available No data available No data available			
Persistence / degradability: Bioaccumulative potential(BCF): Mobility in soil	No data available 290			
Log Pow:	4.11			
Soil adsorption (Koc):	4000			
Henry's Law (PaM ³/mol):	7.8 x 10 ⁻⁶			
13. DISPOSAL CONSIDERATIONS				
Disposal of product:	Recycle to process if possible. It is the generator's responsibility to comply with Federal, State and Local rules and regulations. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. This section is intended to provide assistance but does not replace these laws, nor does compliance in accordance with this section ensure regulatory compliance according to the law. US EPA guidelines for Identification and Listing of Hazardous Waste are listed in 40 CFR Parts 261. The product should not be allowed to enter the environment, drains, water ways, or the soil.			
Disposal of container:	Dispose of as unused product. Do not re-use empty containers.			
Other considerations:	Observe all federal, state and local regulations when disposing of the substance.			
14. TRANSPORT INFORMATION				
DOT (US)	Non-hazardous for transportation.			
IATA	Non-hazardous for transportation.			
IMDG	Non-hazardous for transportation.			

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15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

US Federal Regulations **CERCLA Hazardous substance and Reportable Quantity:** Not Listed SARA 313: SARA 302: Not Listed **State Regulations** State Right-to-Know Massachusetts Not Listed **New Jersey** Not Listed Pennsylvania Not Listed California Proposition 65: Not Listed Other Information **NFPA Rating: HMIS Classification:** Health: 2 Health: Flammability: 0 Flammability: Instability: Physical: 0 International Inventories Canada: DSL On DSL 259-364-6 EC-No:

16. OTHER INFORMATION

Revision date: 07/06/2018 Revision number: 1

TCI chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.