

Revision number: 4 Revision date: 10/17/2016

1. IDENTIFICATION

Product name: Product code: 2,2'-Dipyridyl Disulfide [for Peptide Synthesis] D1114

For laboratory research purposes.

Not for drug or household use.

TCI AMERICA

SAFETY DATA SHEET

Emergency telephone number:

TCI America (8:00am - 5:00pm) PST

Chemical Emergencies:

Transportation Emergencies:

+1-703-527-3887 (International) Responsible department:

Environmental Health Safety and Security

+1-503-286-7624

Chemtrec 24-Hour +1-800-424-9300 (U.S.A.)

+1-503-286-7624

TCI America

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:

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

Signal word:

Warning!

None

Hazard Statement(s):

Causes serious eye irritation Causes skin irritation

Pictogram(s) or Symbol(s):



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

> [Storage] [Disposal]

Wash hands and face thoroughly after handling. Wear protective gloves. Wear eye and face protection. If on skin: 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 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. None

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula: Synonyms: Substance 2,2'-Dipyridyl Disulfide [for Peptide Synthesis] >98.0%(GC)(T) 2127-03-9 220.31 C₁₀H₈N₂S₂ 2,2'-Dithiodipyridine

4. FIRST-AID MEASURES Inhalation: Call a poison center or doctor if you feel unwell. Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. If skin irritation occurs get medical advice/attention. Remove and wash contaminated clothing before re-Skin contact: use. In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Eye contact: IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. Contact with material may irritate or burn eyes. Call emergency medical service. Move victim to fresh air. Check for and remove any contact lenses. Keep victim warm and quiet. Treat symptomatically and supportively. Effects of exposure to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Ingestion: Do not induce vomiting with out medical advice. If swallowed, seek medical advice immediately and show the container or label. Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Loosen tight clothing such as a collar, tie, belt or waistband. If a person vomits place them in the recovery position so that vomit will not reenter the mouth and throat. Rinse mouth. Keep victim warm and quiet. Treat symptomatically and supportively. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Symptoms/effects: Redness. Acute: No data available Delayed: If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the Immediate medical attention: injury. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. 5. FIRE-FIGHTING MEASURES Suitable extinguishing media: Dry chemical, CO2, sand, earth, water spray or regular foam Consult with local fire authorities before attempting large scale fire fighting operations. Specific hazards arising from the chemical Hazardous combustion products: These products include: Carbon oxides Nitrogen oxides Sulfur oxides Other specific hazards: Closed containers may explode from heat of a fire. Special precautions for fire-fighters: Use water spray or fog; do not use straight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when heated. Move containers from fire area if you can do it without risk. Special protective equipment for fire-fighters: Wear positive pressure self-contained breathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations ONLY; it may not be effective in spill situations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may provide little or no thermal protection. 6. ACCIDENTAL RELEASE MEASURES -----Avoid contact with alvin, avon, and elething. Keen nearly avong from and unwind of anill/look. Do not touch

Personal precautions:	Avoid contact with skin, eyes, and clothing. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (Section 8). Warn unnecessary personnel to move away. Stop leak if you can do it without risk. Ensure adequate ventilation. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
Personal protective equipment:	Wear eye protection (splash goggles) and face protection (full length face shield). Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).
Emergency procedures:	Prevent dust cloud. In case of a spill and/or a leak, always shut off any sources of ignition, ventilate the area, and excercise caution. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Warn personnel to move away. Prevent entry into sewers, basements or confined areas; dike if needed.

Methods and materials for containment and cleaning up:

ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if without risk. Ventilate the area. Absorb with an inert material and put the spilled material in an appropriate waste disposal container. Use clean non-sparking tools to collect absorbed material. **Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Water runoff can cause environmental damage. Prevent entry into sewers, basements or confined areas; dike if needed.

Precautions for safe handling:	Avoid inhalation of vapor or mist. Avoid contact with skin and eyes. Good general ventilation should be sufficient to control airborne levels. Keep container dry. Handle and open container with care. Wear suitable protective clothing, gloves and eye/face protection. When using do not eat, drink, or smoke. Kee away from sources of ignition.
Conditions for safe storage:	Keep only in the original container in a cool well-ventilated place. Keep away from incompatibles. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid prolonged storage periods. Store under inert gas (e.g. Argon).
Storage incompatibilities:	Store away from oxidizing agents

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits: No data available

Appropriate engineering controls:

Good general ventilation should be sufficient to control airborne levels. Ventilation is normally required when handling or using this product. Eyewash fountains should be provided in areas where there is any possibility that workers could be exposed to the substance. Follow safe industrial engineering/laboratory practices when handling any chemical.

Personal protective equipment

Respiratory protection: Hand protection: Eye protection: Skin and body protection: Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Nitrile gloves. Safety glasses. Lab coat.

Upper:

No data available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:	Solid Crystal - Powder White - Almost white No data available No data available		
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:	58°C (136°F) No data available No data available No data available No data available	pH: Vapor pressure: Vapor density: Dynamic Viscosity:	No data available No data available No data available No data available
Partition coefficient: n-octanol/water (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: Lower: No data avai	No data available lable

Solubility(ies): Water: Soluble Soluble: Methanol, Acetone, Ethanol

10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products: Not Available. Air sensitive. No hazardous reactivity has been reported. Air sensitive. Exposure to air. Strong bases, Strong oxidizing agents No data available

11. TOXICOLOGICAL INFORMATION

2,2'-Dipyridyl Disulfide [for Peptide Synth	nesis] TCI AM	ERICA		Page 4 of 5
Acute Toxicity: No data available				
Skin corrosion/irritation: No data available				
Serious eye damage/irritation: No data available				
Respiratory or skin sensitization: No data available				
Germ cell mutagenicity: No data available				
Carcinogenicity:				
No data available				
IARC: No data available	NTP:	No data available	OSHA:	No data available
Reproductive toxicity: No data available				
Routes of Exposure: Symptoms related to exposure: Skin contact may result in inflammation; cha		ntact, Ingestion, Skin contac		contact may result in reduces, pain
or dry skin. Eye contact may result in irritation, cha Potential Health Effects: Skin and eye contact may result in irritation.	ss or pain.	, scaling, reddening, or occa	Sionally Distering. Skin	contact may result in redness, pain
Target organ(s):	No data available			
12. ECOLOGICAL INFORMATION				
Ecotoxicity				
Fish:	No data available			
Crustacea:	No data available			
Algae:	No data available			
Persistence and degradability:	No data available			
Bioaccumulative potential (BCF):	No data available No data available			
Mobillity in soil: Partition coefficient:	No data available			
n-octanol/water (log Pow)				
Soil adsorption (Koc):	No data available			
Henry's Law:	No data available			
constant (PaM³/mol)				
13. DISPOSAL CONSIDERATIONS	Doguelo to antes	if populate it is the second	orla roopanaihilitetta	moly with Endored State and Land
Disposal of product:	rules and regulatio chemical incinerate assistance but doe regulatory complia	ns. You may be able to diss or equipped with an afterbur is not replace these laws, no nce according to the law. US 40 CFR Parts 261. The pro	olve or mix material with ner and scrubber syster or does compliance in a S EPA guidelines for Ide	mply with Federal, State and Local h a combustible solvent and burn in a m. This section is intended to provide ccordance with this section ensure entification and Listing of Hazardous wed to enter the environment, drains,
Disposal of container: Other considerations:	Dispose of as unus	sed product. Do not re-use e l, state and local regulations		substance.
14. TRANSPORT INFORMATION				

DOT (US)

IATA

IMDG

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.): This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.

SARA 313 SARA 302	:	nd Reportable Quantity: Not Listed Not Listed		
State Regulations	<u>8</u>			
State Right-to-Kn	ow			
Massachusetts New Jersey Pennsylvania		Not Listed Not Listed Not Listed		
California Propos		Not Listed		
Other Information	ı			
NFPA Rating:		HMIS Classification:		
Health:	2	Health:	2	
Flammability:	1	Flammability:	1	
Instability:	0	Physical:	0	
nternational Inve	entories			
WHMIS hazard class: EC-No:		D2B: Materials causing other toxic effects. (Toxic) 218-343-1		

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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.