

Revision number: 2 Revision date: 10/06/2014

1. IDENTIFICATION

Product name: Product code: D-Pipecolic Acid P1830

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

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SAFETY DATA SHEET

TCI AMERICA

For laboratory research purposes. Not for drug or household use.

> 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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: CAS Number: Molecular Weight: Chemical Formula: Synonyms: Substance D-Pipecolic Acid >98.0%(T) 1723-00-8 129.16 C₆H₁₁NO₂ D-Homoproline , D-Pipecolinic Acid , (R)-(+)-2-Piperidinecarboxylic Acid

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.	
Skin contact:	If skin irritation occurs get medical advice/attention. Remove and wash contaminated clothing before re- 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:		
Acute: Delayed:	Redness. No data available	
Immediate medical attention:	If breathing has stopped, perform artificial respiration. Use first aid treatment according to the nature of the 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, CO ₂ , sand, earth, water spray or regular foam Consult with local fire authorities before attempting large scale fire fighting operations.	
Specific hazards arising from the cher		
Hazardous combustion products: Other specific hazards:	These products include: Carbon oxides Nitrogen oxides Closed containers may explode from heat of a fire.	
Special precautions for fire-fighters: Use water spray or fog; do not use straig heated. Move containers from fire area if Special protective equipment for fire-f		
	eathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situations	
ONLY; it may not be effective in spill situ provide little or no thermal protection.	ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may	
ONLY; it may not be effective in spill situ	ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may	
ONLY; it may not be effective in spill situ provide little or no thermal protection.	ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may URES 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.	
ONLY; it may not be effective in spill situ provide little or no thermal protection. 6. ACCIDENTAL RELEASE MEAS	ations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may URES 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	

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.

7. HANDLING AND STORAGE 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. Keep 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. 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.

approved respirator or equivalent.

Personal protective equipment	
Respiratory protection:	Dust respirator. Be sure to use a MSHA/NIOSH a
Hand protection:	Nitrile gloves.

Safety glasses.

Lab coat.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C): Form: Color: Odor: Odor threshold:	Solid Crystal - Powder White - Very pale yellow No data available No data available		
Melting point/freezing point: Boiling point/range: Decomposition temperature: Relative density: Kinematic Viscosity:	270°C (518°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 tempera Flammability or explo Lower: Upper:	

Solubility(ies):

Eye protection:

Skin and body protection:

10. STABILITY AND REACTIVITY

Reactivity: Chemical Stability: Possibility of Hazardous Reactions: Conditions to avoid: Incompatible materials: Hazardous Decomposition Products: Not Available. Stable under recommended storage conditions. (See Section 7) No hazardous reactivity has been reported. Avoid excessive heat and light. Oxidizing agents No data available

11. TOXICOLOGICAL INFORMATION

D-Pipecolic Acid	TCI AMERICA Page 4 o	
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		
or dry skin. Eye contact may result in redne Potential Health Effects:		contact may result in redness, pain
Skin and eye contact may result in irritation Target organ(s):	n. No data available	
12. ECOLOGICAL INFORMATION		
Ecotoxicity Fish: Crustacea: Algae:	No data available No data available No data available	
Persistence and degradability: Bioaccumulative potential (BCF): Mobillity in soil: Partition coefficient: n-octanol/water (log Pow) Soil adsorption (Koc): Henry's Law: constant (PaM ³ /mol)	No data available No data available No data available No data available No data available No data available	
13. DISPOSAL CONSIDERATIONS Disposal of product:	Recycle to process if possible. It is the generator's responsibility to com rules and regulations. You may be able to dissolve or mix material with chemical incinerator equipped with an afterburner and scrubber system assistance but does not replace these laws, nor does compliance in ac regulatory compliance according to the law. US EPA guidelines for Ider Waste are listed in 40 CFR Parts 261. The product should not be allow water ways, or the soil.	a combustible solvent and burn in a a. This section is intended to provide cordance with this section ensure ntification and Listing of Hazardous
Disposal of container: Other considerations:	Dispose of as unused product. Do not re-use empty containers. Observe all federal, state and local regulations when disposing of the s	ubstance.
14. TRANSPORT INFORMATION		
DOT (US)	Non-hazardous for transportation.	
IATA	Non-hazardous for transportation.	
IMDG	Non-hazardous for transportation.	

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA 8b.):

This product is NOT on the EPA Toxic Substances Control Act (TSCA) inventory. The following notices are required by 40 CFR 720.36 (C) for those products not on the inventory list:

(i) These products are supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720.0 et sec.

(ii) The health risks of these products have not been fully determined. Any information that is or becomes available will be supplied on a SDS sheet.

US Federal Regulations

CERCLA Hazardous substance and Reportable Quantity:

SARA 313:	Not Listed
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:

Health:	2	Health:
Flammability:	0	Flammability:
Instability:	0	Physical:
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International Inventories

WHMIS hazard class: EC-No: D2B: Materials causing other toxic effects. (Toxic) 217-024-4

HMIS Classification:

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16. OTHER INFORMATION

Revision date: 10/06/2014

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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.