

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

1. IDENTIFICATION

Product name: Product code: Guanidine Phosphate G0165

For laboratory research purposes.

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:

Acute Toxicity - Oral [Category 4] Acute Toxicity - Dermal [Category 4] Acute Toxicity - Inhalation [Category 4]

Signal word:

Warning!

Hazard Statement(s):

Harmful if swallowed Harmful in contact with skin Harmful if inhaled

Pictogram(s) or Symbol(s):



Precautionary Statement(s): [Prevention]

[Response]

[Storage] [Disposal] Do not eat, drink or smoke when using this product. Wash hands and face thoroughly after handling. Wear protective gloves and protective clothing. Avoid breathing dusts or mists. Use only outdoors or in a well-ventilated area. If swallowed: Immediately call a poison center or doctor. Rinse mouth. If on skin: Wash with plenty of water. Call a poison center or doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. None

Dispose of contents and container in accordance with US EPA guidelines for the classification and determination of hazardous waste listed in 40 CFR 261.3. (See Section 13)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Components: Percent: Substance Guanidine Phosphate >95.0%(T)

Not for drug or household use. Emergency telephone number:

TCI AMERICA

SAFETY DATA SHEET

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

TCI AMERICA

Page 2 of 5

Guanidine Phosphate	I CI AMERICA Page 2 or 5
3. COMPOSITION/INFORMATION	N ON INGREDIENTS
CAS Number:	5423-23-4
Molecular Weight:	216.14
Chemical Formula:	$C_2H_{10}N_6 \cdot H_3PO_4$
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
Skin contact:	take precautions to protect themselves. Call a poison center or doctor if you feel unwell. Remove and isolate contaminated clothing and shoes. 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 an
Eye contact:	take precautions to protect themselves. If this chemical contacts the eyes, immediately wash (irrigate) the eyes with large amounts of water, occasionally lifting the lower and upper eyelids. If eye irritation persists get medical advice/attention. 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:	Harmful if swallowed. Call a physician or Poison Control Center immediately. 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:	No data available No data available
Immediate medical attention:	WARNING: It might be hazardous to the person providing aid to give mouth-to-mouth respiration, because the inhaled material is harmful. 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 ch	emical
Hazardous combustion products: Other specific hazards:	These products include: Carbon oxides Nitrogen oxides Phosphates Closed containers may explode from heat of a fire.
heated. Move containers from fire area Special protective equipment for fire	ight streams. Dike fire-control water for later disposal; do not scatter the material. Containers may explode when if you can do it without risk. -fighters:
	preathing apparatus (SCBA). Structural fire fighters' protective clothing provides limited protection in fire situation tuations. Wear chemical protective clothing which is specifically recommended by the manufacturer. It may
6. ACCIDENTAL RELEASE MEA	SURES
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.
Personal protective equipment:	Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Safety glasses. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile).

Emergency procedures:

Safety glasses. Lab coat. Dust respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Wear protective gloves (nitrile). 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.

6. ACCIDENTAL RELEASE MEASURES

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:**

Keep away from living quarters. 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. Do not ingest. Avoid contact with skin and eyes. Avoid contact with skin. 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.

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

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:	No data available No data available No data available No data available No data available No data available	pH: Vapor pressure: Vapor density: Dynamic Viscosity:	1 1	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)	1	No data available
Flash point: Flammability (solid, gas):	No data available No data available			

Solubility(ies):

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. Strong oxidizing agents No data available

11. TOXICOLOGICAL INFORMATION

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: Overexposure may result in serious illness Potential Health Effects: No specific information available; skin and Target organ(s):	Inhalation, Eye contact, Ingestion, Skin contact. or death. eye contact may result in irriatation. May be harmful No data available	if inhaled or ingested.
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:	rules and regulations. You may be able to dissolve chemical incinerator equipped with an afterburner assistance but does not replace these laws, nor d regulatory compliance according to the law. US E	s responsibility to comply with Federal, State and Local e or mix material with a combustible solvent and burn in a r and scrubber system. This section is intended to provide loes compliance in accordance with this section ensure PA guidelines for Identification and Listing of Hazardous ct should not be allowed to enter the environment, drains,
Disposal of container: Other considerations:	Dispose of as unused product. Do not re-use emp Observe all federal, state and local regulations wh	
14. TRANSPORT INFORMATION		

14. TRANSPORT INFORMATION

DOT (US)

Non-hazardous for transportation.

ΙΑΤΑ

Non-hazardous for transportation.

TCI AMERICA

14. TRANSPORT INFORMATION

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:	2
Flammability:	0	Flammability:	0
Instability:	0	Physical:	0

International Inventories

WHMIS hazard class: EC-No: D2A: Materials causing other toxic effects. (Very Toxic) 226-552-4

HMIS Classification:

16. OTHER INFORMATION

Revision date: 10/06/2014

Revision number: 2

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.