



Safety Data Sheet (SDS)

Revision / Review Date: 5/6/14

1. Chemical Product and Company Identification

Product Name: DPG
Distributed By: HB Chemical
1665 Enterprise Parkway
Twinsburg Oh 44087
Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input): HB Chemical
Chemical Name / Family: 1,3-diphenylguanidine
CAS No.: 612-149-00-4
REACH: Not available
Product Use: Used as Accelerator

For emergency health, safety, and environmental information, calls 330-920-8023
For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Classification of the substance:

Classification: The substance is classified as the following according to 67/548/EEC and REGULATION (EC) No 1272/2008.

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement
Repr. 2	H361f
Acute Tox. 4	H302
Eye Irrit. 2	H319
STOT SE 3	H335
Skin Irrit. 2	H315
Aquatic Chronic 2	H411

For full text of H- phrases: see section 2.2.

67/548/EEC	
Hazards characteristics	R-Phrases

Repr. Cat. 3	R62
Xn	R22
Xi	R36/37/38
N	R51/53

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

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The most important adverse physicochemical effects: Not Applicable.

The most important adverse human health effects: Suspected of damaging fertility.
Harmful if swallowed.
Causes serious eye irritation.
May cause respiratory irritation.
Causes skin irritation.

The most important adverse environmental effects: Toxic to aquatic life with long lasting effects.

Label Elements

Hazard pictograms:



Signal Words: Warning

Hazard Statement: H361f Suspected of damaging fertility.
H302 Harmful if swallowed.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statement: P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P281: Use personal protective equipment as required.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313: IF exposed or concerned: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P332 + P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.
P391 Collect spillage.
P403 + P233 Store in a well-ventilated place.
P405 Store locked up.
P501 Dispose of contents/container to local regulations.

Other Hazards:

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

3. Composition / Information on Ingredients

Substance/Mixture:

Substance

Ingredients:

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
1,3-diphenylguanidine	N/A	102-06-7	203-002-1	96%-99%

4. First Aid Measures

Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

Inhalation:

Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Eyes:

Remove contact lenses. Hold eyelids apart. Flush immediately with water of at least 15 minutes. Seek medical attention.

Skin:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

Ingestion:

Rinse mouth. Give water to drink. Induce vomiting. Never induce vomiting in unconscious or confused persons. Always seek medical advice.

Most important symptoms and effects, both Acute and delayed:

Symptoms can include redness, swelling, pain and tearing. Inhalation of dust may cause respiratory tract irritation. May cause allergic skin reaction.

Indication of any immediate medical attention and Special treatment needed:

if skin irritation or rash occurs, get medical advice/attention.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Carbon Dioxide, appropriate foam or dry chemical, water fog.
<u>Unsuitable Extinguishing Media:</u>	Not available.
<u>Special Fire Fighting Procedures:</u>	Firefighters must wear fire resistant protective equipment. Wear self-contained breathing apparatus and protective gloves.
<u>Special hazards arising from the substance or mixture:</u>	Toxic emission may result if product is involved in a fire.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

<u>For non-emergency personnel:</u>	Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapor or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/ face protection.
<u>For emergency responders:</u>	Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.
<u>Environmental Precautions:</u>	Avoid disposing into drainage/sewer system or directly into the aquatic environment. Keeping away from drains, surface-and ground-water and soil.
<u>Methods for Containment and Cleaning up:</u>	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Clean up affected area.
<u>Reference to other sections:</u>	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.
<u>Additional information:</u>	Wet clean or vacuum up solids. Don't use a brush or compressed air for cleaning surfaces or clothing. Clear spills immediately.

7. Handling and Storage:

Precautions for safe handling

<u>Protective measures:</u>	Do not breathe dusts/vapor. Handle in well ventilated areas. Eliminate all sources of ignition, and do not generate flames or sparks. Take precautionary measures against static discharges.
<u>Advice on general occupational hygiene:</u>	Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
<u>Conditions for safe storage, including</u>	

<u>any incompatibilities:</u>	Store closed containers in a cool, dry, well-ventilated area. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Do not double stack.
<u>Specific end use(s):</u>	Not applicable.

8. Exposure Controls / Personal Protection

<u>Control parameters:</u>	Occupational exposure limits: Nuisance Dust. OSHA PEL/8Hr-TWA = 15 mg/m ³ (Total Dust). OSHA PEL/8-Hr TWA = 05 mg/m ³ (Respirable Dust). ACGIH TLV/8-Hr TWA = 10 mg/m ³ . White Mineral Oil OSHA PEL/8-Hr TWA = 5mg/m ³ ACGIH TLV/8-Hr TWA = 5mg/m ³ .
<u>Additional exposure limits under the conditions of use:</u>	Not available.
<u>DNEL/DMEL and PNEC-Values:</u>	Not available.
<u>Exposure Controls:</u>	Avoid dust generation. Ensure good ventilation and local exhaustion of the working area.
<u>Respiratory Protection:</u>	Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus.
<u>Thermal Hazards:</u>	Wear suitable protective clothing to prevent heat.
<u>Protective Gloves:</u>	Wear appropriate gloves to prevent skin exposure.
<u>Eye Protection:</u>	Wear appropriate goggles to prevent eye exposure.
<u>Skin and Body Protection:</u>	Wear suitable protective clothing to prevent skin exposure.
<u>Environmental exposure controls:</u>	Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. According to local regulations, Federal and official regulations.

9. Physical and Chemical Properties

<u>Physical Form:</u>	Powder; granules
<u>Appearance & Odor:</u>	White to off-white/Aromatic
<u>Odour threshold:</u>	Not available
<u>pH:</u>	Not Applicable.
<u>Melting point/range (°C):</u>	145 °c
<u>Boiling point/range (°C) :</u>	> 170 °C (decomposition temperature)
<u>Flash point (°C) :</u>	> 150 °C (closed cup)
<u>Evaporation rate:</u>	<0.3% by heat loss
<u>Flammability (solid, gas):</u>	Combustible
<u>Ignition temperature (°C) :</u>	790 °C

<u>Upper/lower flammability/explosive limits: Lower:</u>	12.6(g/m3)
<u>Vapour pressure (20°C) :</u>	Negligible at room temperatures
<u>Vapour density:</u>	Not applicable
<u>Relative Density (25°C):</u>	1.115
<u>Bulk density (kg/m3) :</u>	1180 kg/m ³
<u>Water solubility (g/l) :</u>	Insoluble; <0.1g/100 ml @ 21°C
<u>n-Octanol/Water (log Po/w) :</u>	Log Pow: 1.69
<u>Auto-ignition temperature:</u>	Not available
<u>Decomposition temperature:</u>	Not available
<u>Viscosity, dynamic (mPa s) :</u>	Not determined
<u>Explosive properties:</u>	Not applicable
<u>Oxidising properties:</u>	Not applicable
<u>Other information</u>	
<u>Fat solubility(solvent– oil to be specified) etc:</u>	Soluble in Acetone Ethanol Acids Chloroform Benzene Toluene
<u>Surface tension:</u>	Not available
<u>Dissociation constant in water(pKa):</u>	Not available
<u>Oxidation-reduction Potential:</u>	Not available

10. Stability and Reactivity

<u>Reactivity:</u>	The substance is stable under normal storage and handling conditions.
<u>Stability:</u>	Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation.
<u>Possibility of hazardous reactions:</u>	Under normal conditions not hazardous reactions will occur.
<u>Incompatibility (Materials to Avoid):</u>	Contact with oxidizing agents.
<u>Conditions to Avoid:</u>	Keep away from heat, sparks and flame. Temperatures above 160° C. Avoid contact with strong oxidants such as liquid Chlorine and concentrated oxygen.
<u>Hazardous decomposition products:</u>	Carbon monoxide. Oxides of nitrogen.

11. Toxicological Information

Toxicokinetics, metabolism and distribution

<u>Non-human toxicological data:</u>	Not available
<u>Method:</u>	Not available
<u>Dosis:</u>	Not available
<u>Routes of administration:</u>	Not available
<u>Results:</u>	Not available
<u>Absorption:</u>	Not available
<u>Distribution:</u>	Not available
<u>Metabolism:</u>	Not available
<u>Excretion:</u>	Not available

Information on toxicological effects

<u>Acute toxicity:</u>	LD50(Oral, Rat): 323 mg/kg LD50(Oral, Rabbit): 250 mg/kg LD50(Inhalation, Rat): Not available
<u>Skin corrosion/Irritation:</u>	Irritating to skin.
<u>Serious eye damage/irritation:</u>	Irritating to eyes.
<u>Respiratory or skin sensitization:</u>	May cause respiratory irritation
<u>Germ cell mutagenicity:</u>	Not classified
<u>Carcinogenicity:</u>	Not classified
<u>Reproductive toxicity:</u>	Suspected of damaging fertility.
<u>STOT- single exposure:</u>	Not classified
<u>STOT-repeated exposure:</u>	Not classified
<u>Aspiration hazard:</u>	Not classified

12. Ecological Information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	9.6 mg/l	96h	Bluegill Fish	OECD 203	N/A	N/A
LC50	17.0 mg/l	48h	Daphnia Magna	OECD 202	N/A	N/A
EC50	1.7 mg/l	96h	Algae	OECD 201	N/A	N/A

<u>Persistence and degradability:</u>	> 90% in 2 weeks. 1.69 log P.
<u>Bioaccumulative potential:</u>	Bio Concentration Factor (BCF): 33.78 (calculated, EPIWIN)
<u>Mobility in soil:</u>	Not available.
<u>Results of PBT&vPvB assessment:</u>	Not available.
<u>Other adverse effects:</u>	Not applicable.

13. Disposal Considerations

<u>Waste treatment methods:</u>	Avoid discharge into the environment. This material and its container must be disposed of as hazardous waste. Accordance with all local, state, and federal regulations.
<u>Product/Packaging disposal:</u>	If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according national or local regulations.

14. Transport Information

<u>D.O.T. Shipping Name</u>	UN 3077 Class: 9 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine) Packaging group: III
<u>Air - ICAO (international Civil Aviation Organization)</u>	UN 3077 Class: 9 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine) Packaging group: III
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	UN 3077 Class: 9 Proper shipping name: Environmentally hazardous substance, solid, n.o.s. (1,3-diphenylguanidine) Packaging group: III
<u>Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code:</u>	IBC08

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

<u>Relevant information regarding authorization:</u>	Not applicable.
<u>Relevant information regarding restriction:</u>	Not applicable
<u>Other EU regulations:</u>	Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.
<u>Other National regulations:</u>	Not applicable
<i>Chemical Safety Assessment has been carried out?</i>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.