

DPG POWDER (CN)**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****DPG POWDER (CN)**

Substance name 1,3-diphenylguanidine
REACH registration no. 01-2119519144-47

Identification numbers

CAS no. 102-06-7
EC no. 203-002-1
Index no. 612-149-00-4

1.2 Relevant identified uses of the substance or mixture and uses advised against**Relevant identified uses of the substance or mixture**

Industrial raw material
Use in rubber production and processing.

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

Tiarco Chemical Europe GmbH
Am Gut Baarking 12
46395 Bocholt

Telephone no. +49 2871 23476-0
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e-mail europeansales@trcc.com

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

For medical advice (in German and English):
+49 (0)551 192 40 (Giftinformationszentrum Nord)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Acute Tox. 4*; H302
Aquatic Chronic 2; H411
Eye Irrit. 2; H319
Repr. 2; H361f***
Skin Irrit. 2; H315
STOT SE 3; H335

Classification information

(* , ** , *** , ****) Detailed explanation pls. refer to CLP regulation No. 1272/2008, annex VI, 1.2

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3 and 4 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Product identifier**

102-06-7 (1,3-diphenylguanidine)

Hazard pictograms

**DPG POWDER (CN)**

GHS07



GHS08



GHS09

Signal word

Warning

Hazard statement(s)

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

Precautionary statement(s)

P261	Avoid breathing dust.
P264	Wash thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

SECTION 3: Composition/information on ingredients**3.1 Substances****Chemical characterization**

Substance name	1,3-diphenylguanidine
Formula	C ₁₃ H ₁₃ N ₃
Molecular weight	211

Identification numbers

CAS no.	102-06-7
EC no.	203-002-1
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3.2 Mixtures

Not applicable. The product is not a mixture.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

Change contaminated, saturated clothing.

After inhalation

Remove affected person from the immediate area. Ensure supply of fresh air. In case of persisting adverse effects consult a physician.

After skin contact

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). In case of irritation consult an ophthalmologist.

After ingestion

Rinse the mouth thoroughly with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed**Symptoms**

The main known symptoms and effects are described on the label (see Section 2.2) and/or in chapter 11.

DPG POWDER (CN)**4.3 Indication of any immediate medical attention and special treatment needed**

Symptomatic treatment (decontamination, vital functions), no specific antidote known.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Foam; Extinguishing powder; Water spray jet; Carbon dioxide

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

Danger of dust explosion when in powder form. In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus. Wear full protective suit. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8. Ensure adequate ventilation. Avoid dust formation. Keep away from ignition sources.

For emergency responders

No data available. Personal protective equipment (PPE) - see Section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up

Collect mechanically. Avoid raising dust. When collected, handle material as described under the section heading "Disposal considerations". Clean contaminated surfaces thoroughly.

6.4 Reference to other sections

Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8. Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage**7.1 Precautions for safe handling****Advice on safe handling**

Avoid the formation and deposition of dust. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Wash hands before breaks and after work. Do not inhale dust. Avoid skin and eye contact. Provide eye wash fountain in work area. Have emergency shower available.

Advice on protection against fire and explosion

Dust can form an explosive mixture with air. Take precautionary measures against static charges. Keep away from sources of heat and ignition.

7.2 Conditions for safe storage, including any incompatibilities**Technical measures and storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place.

Requirements for storage rooms and vessels

Store product in closed containers. Keep only in the original container. Protect from heat and direct sunlight.

Incompatible products

Do not store together with foodstuffs. Substances to be avoided, see section 10.

7.3 Specific end use(s)

DPG POWDER (CN)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL, DMEL and PNEC values

DNEL values (worker)

Substance name				CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	1,3-diphenylguanidine			102-06-7 203-002-1	
	dermal	Long term (chronic)	systemic	0.47	mg/kg bw/day
	inhalative	Long term (chronic)	svstemic	0.33	mg/m³

DNEL value (consumer)

DNEL value (consumer)					
No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	1,3-diphenylguanidine			102-06-7 203-002-1	
	oral	Long term (chronic)	systemic	0.017	mg/kg bw/day
	dermal	Long term (chronic)	systemic	0.17	mg/kg bw/day
	inhalative	Long term (chronic)	systemic	0.06	mg/m³

PNEC values

PNEC values				
No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	1,3-diphenylguanidine		102-06-7 203-002-1	
	water	fresh water	30	µg/L
	water	marine water	3	µg/L
	water	fresh water sediment	2.51	mg/kg dry weight
	water	marine water sediment	0.251	mg/kg dry weight
	soil	-	0.404	mg/kg dry weight
	sewage treatment plant	-	1.47	mg/L

8.2 Exposure controls

Appropriate engineering controls

Provide adequate ventilation. This should be achieved by the use of local exhaust ventilation and good general extraction.

Personal protective equipment

Respiratory protection

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of dust formation, take appropriate measures for breathing protection in the event that workplace threshold values are not specified.

Eye / face protection

Tightly fitting safety glasses (EN 166).

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Before use, the protective gloves should be tested in any case for its specific work-station suitability (i.e. mechanical resistance, product compatibility and antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Protective gloves shall be replaced immediately when physically damaged or worn. Design operations thus to avoid permanent use of protective gloves.

Other

Normal chemical work clothing.

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and chemical properties

DPG POWDER (CN)

9.1 Information on basic physical and chemical properties

State of aggregation			
solid			
Form			
Solid			
Colour			
white; light pink			
Odour			
slight			
pH value			
No data available			
Boiling point / boiling range			
Value	>	250	°C
Reference pressure		1010	hPa
Source	supplier		
Melting point/freezing point			
Value		149	°C
Source	supplier		
Decomposition temperature			
No data available			
Flash point			
Not relevant			
Source	supplier		
Ignition temperature			
No data available			
Auto-ignition temperature			
Not applicable			
Source	supplier		
Oxidising properties			
none			
Explosive properties			
not explosive			
Flammability			
The product is non-flammable.			
Source	supplier		
Lower explosion limit			
No data available			
Upper explosion limit			
No data available			
Vapour pressure			
Not relevant			
Source	supplier		
Relative vapour density			
No data available			
Relative density			
Value		0.348	
Reference temperature		20	°C
Source	supplier		
Density			
No data available			
Solubility in water			
Value		325	mg/l

DPG POWDER (CN)

Source	supplier
Solubility	
Source	supplier
Comments	readily soluble in ether
Soluble in	
Ethanol; Toluene; Chloroform; carbon tetrachloride	
Partition coefficient n-octanol/water (log value)	
No data available	
Kinematic viscosity	
Not relevant	
Source	supplier
Particle characteristics	
No data available	

9.2 Other information

Other information
Surface tension: 58.8 mN/m (20 °C; 300 mg/L)
Dissociation constant in water: pKa 10.13 (20 °C)

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable if stored and handled properly.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions. Dust can form an explosive mixture with air.

10.4 Conditions to avoid

Heat, naked flames and other ignition sources. Avoid formation of dust. Protect from sun.

10.5 Incompatible materials

Oxidizing agents

10.6 Hazardous decomposition products

None if stored, handled and transported properly. In case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity			
No data available			
Acute dermal toxicity			
LD50	>	2000	mg/kg
Species	rabbit		
Source	supplier		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Acute inhalational toxicity			
LC0	>=	500	mg/m³
Species	dog		
Source	supplier		
Evaluation/classification	Based on available data, the classification criteria are not met.		
Skin corrosion/irritation			
Source	supplier		
Evaluation	irritant		
Serious eye damage/irritation			
Source	supplier		
Evaluation	irritant		

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Respiratory or skin sensitisation	
Route of exposure	Skin
Source	supplier
Evaluation/classification	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Source	supplier
Evaluation/classification	Based on available data, the classification criteria are not met.
Reproduction toxicity	
Source	supplier
Evaluation/classification	Based on available data, the classification criteria are met.
Carcinogenicity	
No data available	
STOT - single exposure	
Source	supplier
Evaluation/classification	May cause respiratory irritation.
STOT - repeated exposure	
Source	supplier
Evaluation/classification	Based on available data, the classification criteria are not met.
Aspiration hazard	
Not classified.	

11.2 Information on other hazards

Endocrine disrupting properties
see 12.6

Other information
No data available.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish (acute)			
LC50	4.2	mg/l	
Duration of exposure	96	h	
Species	fish		
Source	supplier		
Toxicity to fish (chronic)			
NOEC	1.3	mg/l	
Species	fish		
Source	supplier		
Toxicity to Daphnia (acute)			
EC50	17	mg/l	
Duration of exposure	48	h	
Species	Daphnia magna		
Source	supplier		
Toxicity to Daphnia (chronic)			
NOEC	0.6	mg/l	
Species	Daphnia magna		
Toxicity to algae (acute)			
EC50	7.5	mg/l	
Duration of exposure	72	h	
Species	Algae		
Source	supplier		
Toxicity to algae (chronic)			
NOEC	0.3	mg/l	
Duration of exposure	96	h	
Species	Algae		
Source	supplier		

DPG POWDER (CN)

Bacteria toxicity

No data available

12.2 Persistence and degradability

Biodegradability

Source

supplier

Evaluation

readily biodegradable

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

PBT assessment

The product is not considered to be a PBT.

vPvB assessment

The product is not considered to be a vPvB.

12.6 Endocrine disrupting properties

Endocrine disrupting properties

Contains no substances identified as having endocrine disrupting properties.

12.7 Other adverse effects

No data available.

12.8 Other information

Other information

Do not discharge into drains or waters and do not dispose of in public landfills.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.
dispose of in accordance with local regulation.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information

14.1 Transport ADR/RID/ADN

Class	9
Classification code	M7
Packing group	III
Hazard identification no.	90
UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name	1,3-diphenylguanidine
Tunnel restriction code	-
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.2 Transport IMDG

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
Technical name	1,3-diphenylguanidine
EmS	F-A, S-F
Label	9
Marine pollutant mark	Symbol "fish and tree"

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14.3 Transport ICAO-TI / IATA

Class	9
Packing group	III
UN number	UN3077
Proper shipping name	Environmentally hazardous substance, solid, n.o.s.
Technical name	1,3-diphenylguanidine
Label	9
Environmentally hazardous substance mark	Symbol "fish and tree"

14.4 Other information

No data available.

14.5 Environmental hazards

Information on environmental hazards, if relevant, please see 14.1 - 14.3.

14.6 Special precautions for user

To be transported always in closed, upright and safe containers. Make sure that persons handling these containers are aware of the rules of conduct in case of incident or spillage.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)

In accordance with the REACH regulation (EC) 1907/2006, the product does not contain any substances that are considered as subject to listing in annex XIV, inventory of substances requiring authorisation.

REACH candidate list of substances of very high concern (SVHC) for authorisation

In accordance with article 57 and article 59 of the Reach regulation (EC) 1907/2006, this substance is not considered as subject to listing in annex XIV, inventory of substances requiring authorisation ("Authorization list").

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The substance is considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	1,3-diphenylguanidine	102-06-7	203-002-1	75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is subject to Part I of Annex I, risk category: E2

15.2 Chemical safety assessment

A chemical safety assessment has been carried out for this substance.

SECTION 16: Other information

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.



Tiarco Chemical Europe GmbH

DPG POWDER (CN)

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