SECTION 1: Identification of the substance /mixture and of the company/undertaking

1.1. Product identifier

Product Name	Rubber Accelerator DPG (D)
Substance Name	Diphenyl guanidine
Synonym	1,3-Diphenylguanidine
CAS No	102-06-7
EC No	203-002-1
Index No	612-149-00-4
REACH registration number	Not available

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

Recommended Use	Used as rubber accelerator in rubber goods manufacture
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Only representative	REACH24H CONSULTING GROUP
Address	Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland
E-mail	reach@reach24h.com
Supplier	Willing New Materials Technology Co.,Ltd.
Address	Chemical Industry-Intensive Area, Puyang, Henan, China
Postal Code	457163
Phone	+86-393-4840366
FAX	+86-393-4840346
E-mail	kuber@willingchem.com
Importer	
Address	
Postal Code	
Phone	
FAX	
E-mail	

1.4. Emergency telephone number

In China: +86-393-4840366 (Office hours available)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity – Oral, Category 4 - H302
Skin corrosion/irritation, Category 2 - H315
Serious eye damage/eye irritation, Category 2 - H319
Reproductive Toxicity, Category 2 - H361f
Specific target organ toxicity (single exposure), Category 3 - H335
Hazardous to the aquatic environment — Chronic Hazard, Category 2 - H411

2.2. Label elements

Symbols/Pictograms



Signal word: Warning

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

Precautionary Statements:
P201 - Obtain special instructions before use
P273: Avoid release to the environment.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281 - Use personal protective equipment as required
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 - IF exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/ container in accordance with local/regional/ national/international regulation.

EU Specific Hazard Statements: None.

2.3. Other hazards

This substance does not meet the PBT criteria of REACH regulation, annex XIII
This substance does not meet the vPvB criteria of REACH regulation, annex XIII
The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1 Substance

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Diphenyl guanidine (DPG)	203-002-1	102-06-7	⩾97.0	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 2 (H361) STOT SE 3 (H335) Aquatic Chronic 2 (H411)

Remark: The rest unspecified ingredients are impurities, and they are not hazard.

3.2 Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

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

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

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/attention.

Ingestion

Rinse mouth. Do NOT induce vomiting. Seek immediate medical attention/advice.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. Suspected of damaging fertility. May cause respiratory irritation

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Water, dry chemical, chemical foam, or alcohol-resistant foam.
Unsuitable extinguishing media	No information available.

5.2. Special hazards arising from the substance or mixture

Combustible. Fight fire from a safe distance and from a protected location. Decomposition in fire may produce toxic gases. The following may develop in event of fire: nitrous gases, hydrogen cyanide, carbon oxides, and nitrogen oxides.

5.3. Advice for firefighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing. Prevent fire-fighting water from entering surface water or groundwater. Contain escaping vapors with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Sweep spilled substance into containers; if appropriate, moisten first to prevent dusting. (Extra personal protection: P2 filter respirator for harmful particles). Do NOT wash away into sewer. Do NOT let this chemical enter the environment.

6.4. Reference to other sections

See Section 7 for more information
See section 8 for more information
See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Keep locked up and out of reach of children. Keep away from food, drink and animal feeding stuffs. Store in accordance with local regulations.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

No data available

Derived No Effect Level (DNEL)

No data available
No chemical safety assessment has been carried out.

Predicted No Effect Concentration (PNEC)

No data available
No chemical safety assessment has been carried out.

8.2. Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations. Remove all sources of ignition.

Personal protective equipment

Eye/face protection	Safety goggles or eye protection in combination with breathing protection.
Hand Protection	For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.
Skin and body protection	Suitable protective clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	No information available.

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Solid, powder or granule
Color	Gray white
Odor	Slight
Odor Threshold	Not determined
pH	10.2 (10 g/L)
Melting point/freezing point	145 - 150 °C
Boiling point/boiling range	Decomposes above 170 °C (1013 hPa)
Flammability	Not flammable
Explosive limits	Not applicable
Flash point	157.2 °C (Cleveland closed cup)
Auto-ignition temperature	Not applicable
Decomposition temperature	> 170 °C
Viscosity, kinematic	Not applicable
Solubility	Water: 325 mg/L (20 °C) Soluble in alcohol, acetone and benzene, slightly soluble in carbon tetrachloride and water
Partition coefficient n-octanol/water (LogPow)	2.42 (21.1 °C)
Vapor Pressure	$4.0*10^{-6}$ mmHg (25 °C)
Density/relative density	1.13 g/cm³ (20 °C)
Relative Vapor density	Not applicable
Particle characteristics	D50 = 26 µm
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information

Information with regard to physical hazard classes

No data available

Other safety characteristics

Residues on 150 µm sieve	0.1% max
Ash content	0.3% max
Loss on drying	0.3% max
Oil content	0 - 2.0% (Upon buyer's request)

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage and handling conditions (see section 7).

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing. Hazardous polymerization does not occur.

10.4. Conditions to avoid

Heat, flames and sparks. Incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents, strong acids.

10.6. Hazardous decomposition products

Carbon oxides, nitrogen oxides, ammonia, hydrogen cyanide.

SECTION 11: Toxicological information

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

Acute toxicity

Harmful if swallowed

Diphenyl guanidine (CAS #: 102-06-7)	
LD50 oral rat	350 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation

Causes skin irritation, rabbit.

Serious eye damage/eye irritation

Causes serious eye irritation, rabbit.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

The results of tests with microorganisms and mammalian cells were predominately negative. 2 in-vivo tests on rodents also provided no reason to expect a mutagenic potential.

Carcinogenicity

Not listed as carcinogen by ACGIH, IARC, NIOSH, NTP, or OSHA.

Reproductive toxicity

Suspected of damaging fertility.

STOT - single exposure

May cause respiratory irritation.

STOT - repeated exposure

Not classified.

Aspiration hazard

Not classified.

11.2. Information on other hazards

Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Toxic to aquatic life with long lasting effects.

Diphenyl guanidine(CAS #: 102-06-7)	
LC50 96h - Fish	4.2 mg/l Pimephales promelas
EC50 48h - Crustacea	17 mg/l Daphnia magna

EC50 72h - Algae	2.6 mg/l Desmodesmus subspicatus
NOEC chronic – fish	1.3 mg/L Pimephales promelas
NOEC chronic – Crustacea	0.6 mg/L Daphnia magna

12.2. Persistence and degradability
Degradation: 85 % (28 day);
Result: other: Readily biodegradable;

12.3. Bioaccumulative potential

Diphenyl guanidine (CAS #: 102-06-7)	
BCF - Fish	< 20
Partition coefficient n-octanol/water (Log Pow)	2.42 (21.1 °C)

12.4. Mobility in soil
LogKoc: 2.86

12.5. Results of PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6. Endocrine disrupting properties
The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

12.7. Other adverse effects
No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

14.1 UN number or ID number	3077
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Diphenyl guanidine)
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	Marine pollutant
14.6. Special precautions for user	No information available
14.7 Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

No REACH Annex XVII restrictions
Not on the REACH Candidate List
Not on the REACH Annex XIV List
Not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.
Not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

National regulations

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on the Canadian DSL (Domestic Substances List)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the United States TSCA (Toxic Substances Control Act) inventory
Listed on INSQ (Mexican National Inventory of Chemical Substances)
Listed on the TCSI (Taiwan Chemical Substance Inventory)

Germany

Water hazard class (WGK) WGK 2, Significantly hazardous to water (Classification according to AwSV)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Data sources	LOLI, ECHA
Issue Date	16-Feb-2016
Revision date	08-July-2024

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)
STEL - STEL (Short Term Exposure Limit)
Ceiling - Maximum limit value
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H361 - Suspected of damaging fertility

H335 - May cause respiratory irritation
H411 - Toxic to aquatic life with long lasting effects

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

-------- End of Safety Data Sheet --------