DPG

ROKEM Version 1.2 Revision date: 26/07/2017

1 Identification of the substance and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: DPG

Additional identification: 1,3-diphenylguanidine

Identification of the product: CAS#102-06-7; EC#203-002-1

Index Number: 612-149-00-4
REACH registration No.: Not available

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Used as rubber accelerator.

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited

Supplier(Manufacturer): Shanghai Rokem Industrial Co., Ltd

Address: 9D, Double Dove Great Tower, 438, Pudian Road. Shanghai, 200122,

P.R.CHINA

Contact person(E-mail):

Telephone: +86-21-50812951 Fax: +86-21-58818728

1.4 Emergency telephone Number:

+353 41 980 6916

Available outside office hours? YES NO X

2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

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.

Hazards characteristics	R-Phrases
Repr. Cat. 3	R62
Xn	R22
Xi	R36/37/38
N	R51/53

For full text of R- phrases: see section 16.

2.1.2 The most important adverse effects

2.1.2.1 The most important adverse physicochemical effects:

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

Not applicable.

2.1.2.2 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.

2.1.2.3 The most important adverse environmental effects:

Toxic to aquatic life with long lasting effects.

2.2 label elements

Hazard Pictograms:



Signal Word(S): Warning

Hazard Statement: H361f Suspected of damaging fertility.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation; or H336: May cause drowsiness or dizziness.

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.

2.3 Other hazards

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

3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
1,3-diphenylguanidine	N/A	102-06-7	203-002-1	≥98%

4 First aid measures

4.1 Description of first aid measures:

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

4.1.1 In case of inhalation:

Remove from exposure site to fresh air and keep at rest. Obtain medical advice.

4.1.2 In case of skin contact:

Remove any contaminated clothing or shoes. Wash affected areas thoroughly with soap and water for at least 15 minutes. If irritation persists or any sign of tissue damage is apparent, seek medical attention.

4.1.3 In case of eyes contact:

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

4.1.4 In case of ingestion:

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

4.2 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.

4.3 Indication of any immediate medical attention and special treatment needed

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

5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Carbon dioxide, appropriate foam or dry chemical, water pray, water mist.

Unsuitable extinguishing media: Water jet.

5.2 Special hazards arising from the substance or mixture

Emits toxic fumes under fire conditions: Carbon monoxide (CO), nitrous gases (NOx).

5.3 Advice for fire-fighters:

Firefighters must wear fire resistant protective equipment. Wear self contained breathing apparatus and protective gloves.

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Remove ignition sources. Provide adequate ventilation. Avoid inhalation of vapour or dust. Avoid skin and eye contact. Wear protective gloves/protective clothing/eye protection/face protection.

6.1.2 For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

6.2 Environmental Precautions:

Avoid disposing into drainage/sewer system or directly into the aquatic environment. keeping away from drains, surface-and ground-water and soil.

6.3 Methods for Containment and Cleaning up:

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal. Clean up affected area.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

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

7.1 Precautions for safe handling:

7.1.1 Protective measures:

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.

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Requirements for storage rooms and vessels. Keep in original packaging, tightly closed. Advice on storage assembly. Do not store together with foodstuffs. Do not store together with: Acids and Bases.

Further information on storage conditions: Keep container tightly closed and dry in a cool, well-ventilated place.

7.3 Specific end use(s):

Not applicable.

8 Exposure control/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits: WEL-TWA: 4 mg/m³ (respirable dust)

OES-TWA: 10.0 mg/m³ (inhalable dust) OES-TWA: 4.0 mg/m³ (respirable dust)

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

8.2.1Appropriate engineering controls:

Avoid dust generation. Ensure good ventilation and local exhaustion of the working area.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection Wear appreciate goggles to prevent eye exposure.

Hand protection Wear appreciate gloves to prevent skin exposure.

Body protection Wear suitable protective clothing to prevent skin exposure.

Respiratory protection Avoid breathing dust. In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

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

9.1 Information on basic physical and chemical properties

Appearance: Dedusted powder

Colour: White

Odour: Characteristic
Odour threshold: Not available

pH: 10.2 (10 g/l, Aqueous dispersion)

Melting point/range (°C): 144 °c

Boiling point/range (°C): > 170 °C (decomposition temperature)

Flash point ($^{\circ}$ C): $\sim 150 ^{\circ}$ C (closed cup)

Evaporation rate: Not applicable Flammability (solid, gas); Not flammable

Ignition temperature (°C): 650 °C

Upper/lower flammability/explosive limits: Not determined

Vapour pressure (20°C): Negligible at room temperatures

Vapour density: Not applicable Relative Density (25°C): 1180 kg/m³

Bulk density (kg/m³) : 1200 kg/m³ (25°C) Water solubility (g/l) at 20°C : 0.860 kg/m³ (25 °C, pH 7)

1.470 kg/m³ (25 °C, pH 9)

n-Octanol/Water (log Po/w):

Auto-ignition temperature:

Decomposition temperature:

Viscosity, dynamic (mPa s):

Explosive properties:

Oxidising properties:

Not applicable

Not applicable

9.2. Other information:

Fat solubility(solvent- oil to be specified) etc: Soluble in most organic solvents

Surface tension:

Dissociation constant in water(pKa):

Oxidation-reduction Potential:

Not available

Not available

10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

Under normal conditions, the product is stable. No hazardous reaction when handled and stored according to provisions. Hazardous reactions are not known.

10.3 Possibility of hazardous reactions:

Under normal conditions, not hazardous reactions will occur.

10.4 Conditions to avoid:

Heat, sources of heat, naked flames, sparks. Decomposition starts at 160 °C.

10.5 Incompatible materials:

Avoid contact with Strong oxidizing agents.

10.6 Hazardous decomposition products:

Thermal decomposition products: carbon monoxide (CO), nitrous gases (NOx), tetraphenylmelamine, triphenylmelamine, triphenylcarbimide.

11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Non-human toxikological data: Not available Method: Not available Dosis: Not available Routes of administration: Not available Results: Not available Absorption: Not available Distribution: Not available Metabolism: Not available Excretion: Not available

11.2 Information on toxicological effects

Acute toxicity:

LD50(Oral, Rat): 350 mg/kg
LD50(Dermal Rabbit): >2000 mg/kg
LD50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Irritating to skin.

Serious eye damage/irritation: Irritating to eyes.

Respiratory or skin sensitization: May cause respiratory irritation

Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified

reproductive toxicity:

STOT- single exposure:

Not classified

Not classified

Not classified

Not classified

Not classified

Not classified

12 Ecological information

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

Toxicity:

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

Persistence and degradability: > 90% in 2 weeks

Bio Concentration Factor (BCF): 33.78 (calculated, EPIWIN)

Mobility in soil:Not available.Results of PBT&vPvB assessment:Not available.Other adverse effects:Not applicable.

13 Disposal considerations

13.1 Waste treatment methods

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.

13.2 Product / Packaging disposal:

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

14 Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number:	UN 3077	UN 3077	UN 3077
UN Proper	Environmentally hazardous	Environmentally hazardous	Environmentally hazardous
shipping name:	substance, solid, n.o.s. (DPG)	substance, solid, n.o.s. (DPG)	substance, solid, n.o.s. (DPG)
Transport hazard Class:	9	9	9
Packaging group:	III	III	III
Environmental hazards:	Environmentally hazardous substances	Environmentally hazardous substances	Environmentally hazardous substances
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	IBC 08	IBC 08	IBC 08

DPG

ROKEM Version 1.2 Revision date: 26/07/2017

15 Regulation information

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

Relevant information regarding authorization: Not applicable. **Relevant information regarding restriction:** Not applicable.

Other EU regulations: Employment restrictions concerning young person must be observed. For

use only by technically qualified individuals.

Other National regulations: Not applicable

Chemical Safety Assessment has been carried out? YES NO X

16 Other information

16.1 Indication of changes Version 1.1 Amended by EU No 453/2010

16.2 Relevant R- phrases (number and full text):

R62 Risk of impaired fertility. R22 Harmful if swallowed.

R36/37/38 Irritating to eyes, respiratory system and skin.

R51-53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.3 Training instructions:

Not applicable.

16.4 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.5 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.