



KEMAI Chemical Co., Ltd.

No.72 Haixin Road, Gulin Industry Zone, Dagang,Binhai New Dist, Tianjin P.R.CHINA

Tel: +86 22-24711698 63349929 Fax: +86 22 24379994

Safety Data Sheet

According to Hazard Communication Standard (29 CFR 1910.1200)

DPG

Issue date: 03/18/2015

Version 1.0

Revision date: 03/18/2015

1. Product and Company Identification

| | |
|------------------------------------|--|
| Material name | DPG |
| CAS # | 102-06-7 |
| Product code | - |
| Product use | Not available. |
| Manufacturer/Supplier | |
| Supplier(Manufacturer): | KEMAI Chemical Co., Ltd. |
| Address: | No.72 Haixin Road, Gulin Industry Zone, Dagang, Binhai New Dist, Tianjin P.R.CHINA |
| Contact person(E-mail): | plants@tjkemai.com |
| Telephone: | +86 22 24711698 |
| Fax: | +86 22 24379994 |
| Emergency telephone Number: | +86 22 24711698 |

2. Hazards identification

GHS classification

| | | |
|------------------------------|--|-------------|
| Physical hazards | Not classified | |
| Health hazards | Acute toxicity-Oral | Category 4 |
| | Skin irritation | Category 2 |
| | Serious eye irritation | Category 2A |
| | Specific target organ toxicity after single exposure | Category 3 |
| | Reproductive toxicity | Category 2 |
| Environmental hazards | Hazardous to the aquatic environment-chronic | Category 2 |

GHS label elements

Hazard Pictograms



Signal word

Warning

Hazard statement

Harmful if swallowed.
 Causes skin irritation.
 Causes serious eye irritation.
 May cause respiratory irritation.
 Suspected of damaging fertility or the unborn child.
 Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention

Obtain special instructions before use.

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Do not handle until all safety precautions have been read and understood.

Avoid breathing dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If on skin: Wash with plenty of water.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If exposed or concerned: Get medical advice/attention.

Call a poison center /doctor if you feel unwell.

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

Collect spillage.

Response

Storage

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal

Dispose of contents/container in according with local regulation.

3. Composition / Information on Ingredients

| Components | CAS# | Percent |
|-----------------------|----------|---------|
| 1,3-diphenylguanidine | 102-06-7 | ≥97% |

3% percent of the mixture consists of component (s) of unknown toxicity.

4. First Aid Measures

First aid procedures

Eye contact

Wash well open eyes immediately, abundantly and thoroughly with water. Consult an ophthalmologist immediately.

Skin contact

Wash immediately with soap and water.

Inhalation

Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician

Ingestion

Do not induce vomiting. Seek medical advice.

Notes to physician

Treat symptoms.

5. Fire Fighting Measure

Flammable properties

This product is non-flammable.

Extinguishing media

Suitable extinguishing media

Use water spray, foam, dry powder.

Unsuitable extinguishing media

All other extinguishants.

Firefighting equipment/instructions

Wear self contained breathing apparatus for firefighting if necessary.

Hazardous combustion products

Hydrogen cyanide (hydrocyanic acid), aniline.

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6. Accidental Release Measures

| | |
|----------------------------------|--|
| Personal precautions | Avoid contact with skin, eyes and inhalation of dust. |
| Environmental precautions | Do not let the product enter into drains. Do not contaminate surface water. |
| Methods for cleaning up | Shovel or sweep up. Recover the product and place in a dry labelled container. Destroy the product by incineration (in accordance with local and national regulations). |

7. Handling and Storage

| | |
|-----------------|---|
| Handling | Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Provide water supplies, ocular fountains and showers near the point of use. If dust is formed, wear a dust mask. |
| Storage | Keep in a well-ventilation place. Keep in a dry place. Store protected from moisture. Incompatible products: Oxidants, strong acids. |

8. Exposure Controls / Personal Protection

Control parameters:

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA:

Not available.

EMERGENCY LIMITS:

| Ingredient | TEEL-1 | TEEL-2 | TEEL-3 |
|-----------------------|-------------------------|------------------------|----------------------|
| 1,3-diphenylguanidine | 0.032 mg/m ³ | 0.36 mg/m ³ | 64 mg/m ³ |

| Ingredient | Original IDLH | Revised IDLH |
|-----------------------|---------------|---------------|
| 1,3-diphenylguanidine | Not Available | Not Available |

Exposure controls:

Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Individual protection measures, such as personal protective equipment:

| | |
|---------------------------------------|--|
| Eye / face protection | Tightly fitting safety goggles. |
| Skin protection | Protective suit. Impervious gloves. |
| Respiratory protection | Effective dust mask. |
| General hygiene considerations | Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. |

9. Physical & Chemical Properties

Appearance

| | |
|-----------------------|------------------------|
| Physical state | Solid |
| Form | Powder |
| Color | White to pale pink |
| Odor | Slight |
| Odor threshold | Not available |
| pH | Not available |
| Vapor pressure | ca. 0.006524 Pa (81°C) |
| Vapor density | Not available |

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| | |
|---|--------------------------|
| Boiling point | > 250 °C |
| Melting point/Freezing point | 149.0 °C |
| Solubility (water) | 325 mg/L (PH10.32, 20°C) |
| Specific gravity | Not available |
| Relative density | ca. 0.348 |
| Density | Not available |
| Flash point | Not available |
| Flammability limits in air, upper, %by volume | Not available |
| Flammability limits in air, lower, % by volume | Not available |
| Auto-ignition temperature | Not available |
| VOC | Not available |
| Percent volatile | Not available |
| Other data | |
| Viscosity | Not available |
| Partition coefficient | 2.42 |

10. Chemical Stability & Reactivity Information

| | |
|---|---|
| Reactivity | The product is stable. |
| Chemical stability | Material is stable under normal conditions. |
| Conditions to avoid | Incompatible materials. |
| Incompatible materials | Oxidants, strong acids. |
| Hazardous decomposition products | Hydrogen cyanide (hydrocyanic acid), aniline. |
| Possibility of hazardous reactions | Under normal conditions of storage and use, hazardous reactions will not occur. |

11. Toxicological Information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity:

| | |
|---|--|
| LD50(Oral, Rat): | 111 mg/kg (male) 107 mg/kg (female) |
| LD50(Dermal, Rabbit): | Not available |
| LC50(Inhalation, Rat): | Not available |
| Skin corrosion/Irritation: | Causes skin irritation. |
| Serious eye damage/irritation: | Causes serious eye irritation. |
| Respiratory or skin sensitization: | Not classified |
| Germ cell mutagenicity: | Not classified |
| Carcinogenicity: | Not classified |
| Reproductive toxicity: | Suspected of damaging fertility or the unborn child. |
| STOT- single exposure: | May cause respiratory irritation. |
| STOT-repeated exposure: | Not classified |
| Aspiration hazard: | Not classified |

12. Ecological Information

Toxicity:

| Acute toxicity | | Time | Species | Method | Evaluation | Remarks |
|----------------|----------|------|---------|----------|------------|---------|
| LC50 | 4.2 mg/L | 96h | Fish | OECD 203 | N/A | N/A |
| EC50 | 17 mg/L | 48h | Daphnia | OECD 202 | N/A | N/A |
| EC50 | 2.6 mg/L | 72h | Algae | OECD 201 | N/A | N/A |

Persistence and degradability: Not available.
1,3-diphenylguanidine is characterised by a low potential of bioaccumulation in aquatic organisms.

Bioaccumulative potential:

Mobility in soil: log Koc=3.66(pH= 9)

Results of PBT&vPvB assessment: The substance is not PBT / vPvB.

Other adverse effects: Toxic to aquatic life with long lasting effects.

13. Disposal Considerations

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

Basic shipping requirements:

UN number UN3077

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains 1,3-diphenylguanidine)

Hazard class 9

Packing group III

Environmental hazards Yes

IATA

UN number UN3077

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains 1,3-diphenylguanidine)

Transport hazard class(es) 9

Packing group III

Environmental hazards Yes

IMDG

UN number UN3077

UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (contains 1,3-diphenylguanidine)

Transport hazard class(es) 9

Packing group III

Environmental hazards Yes

15. Regulatory Information

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

| | |
|---|---|
| 1,3-diphenylguanidine (102-06-7) is found on | "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" |
|---|---|

| | |
|--------------------------------|--|
| the following regulatory lists | |
|--------------------------------|--|

16. Other Information

HMIS® ratings

Health:2
Flammability:1
Physical hazard: 0

NFPA ratings

Health: 2
Flammability: 1
Instability: 0

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.

Issue date

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