

# Safety Data Sheet



## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name:** 1,3-DIPHENYLGUANIDINE

**Recommended Use of the Chemical and Restrictions on Use** Manufacture of rubber products.

**Supplier:** Ixom Operations Pty Ltd  
**ABN:** 51 600 546 512  
**Street Address:** Level 8, 1 Nicholson Street  
East Melbourne Victoria 3002  
Australia

**Telephone Number:** +61 3 9906 3000  
**Emergency Telephone:** 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

## 2. HAZARDS IDENTIFICATION

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to the provisions of the Australian Code for the Transport of Dangerous Goods by Road and Rail when transported by road or rail in: packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs.

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

### Classification of the chemical:

Acute Oral Toxicity - Category 4  
Skin Irritation - Category 2  
Eye Irritation - Category 2A  
Specific target organ toxicity (single exposure) - Category 3  
Toxic to Reproduction - Category 2  
Acute Aquatic Toxicity - Category 2  
Chronic Aquatic Toxicity - Category 2

**SIGNAL WORD:** WARNING



### Hazard Statement(s):

H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H361 Suspected of damaging fertility or the unborn child.  
H411 Toxic to aquatic life with long lasting effects.

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## Precautionary Statement(s):

### Prevention:

P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P261 Avoid breathing dust.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves / protective clothing / eye protection / face protection.  
P281 Use personal protective equipment as required.  
P273 Avoid release to the environment.

### Response:

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
P330 Rinse mouth.  
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.  
P321 Specific treatment (see First Aid Measures on Safety Data Sheet).  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P391 Collect spillage.

### Storage:

P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

### Disposal:

P501 Dispose of contents and container in accordance with local, regional, national, international regulations.

**Poisons Schedule (SUSMP):** None allocated.

## 3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion	Hazard Codes
1,3-Diphenylguanidine	102-06-7	>=96.5%	H361f H302 H319 H335 H315 H411

## 4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

### Inhalation:

Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

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## **Skin Contact:**

If skin or hair contact occurs, immediately remove any contaminated clothing and wash skin and hair thoroughly with running water. If swelling, redness, blistering or irritation occurs seek medical assistance.

## **Eye Contact:**

If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes.

## **Ingestion:**

Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. If possible, administer bone char in the amount of 5 crushed pills. Seek immediate medical assistance.

## **Indication of immediate medical attention and special treatment needed:**

Treat symptomatically.

## **5. FIRE FIGHTING MEASURES**

### **Suitable Extinguishing Media:**

Water fog (or if unavailable fine water spray). Foam.

### **Unsuitable Extinguishing Media:**

Carbon dioxide. Dry powder.

**Hazchem or Emergency Action Code:** 2Z

### **Specific hazards arising from the chemical:**

Combustible solid. Environmentally hazardous.

### **Special protective equipment and precautions for fire-fighters:**

Decomposes on heating emitting toxic fumes, including those of carbon monoxide, oxides of nitrogen. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

## **6. ACCIDENTAL RELEASE MEASURES**

### **Emergency procedures/Environmental precautions:**

Clear area of all unprotected personnel. Shut off all possible sources of ignition. Do not allow container or product to get into drains, sewers, streams or ponds. If contamination of sewers or waterways has occurred advise local emergency services.

### **Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:**

Wear protective equipment to prevent skin and eye contact and breathing in dust. Collect and seal in properly labelled containers or drums for disposal. Avoid generating and inhaling dust. Use non-sparking tools.

## **7. HANDLING AND STORAGE**

### **Precautions for safe handling:**

Avoid skin and eye contact and breathing in dust. May form flammable dust clouds in air. For precautions necessary refer to Safety Data Sheet "Dust Explosion Hazards". Take precautionary measures against static discharges. When using do not eat, drink or smoke. Wash hands thoroughly after handling.

### **Conditions for safe storage, including any incompatibilities:**

Store in a cool, well ventilated place. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Keep containers closed when not in use - check regularly for spills.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control Parameters:** No value assigned for this specific material by Safe Work Australia. However, Workplace Exposure Standard(s) for particulates:

Dusts not otherwise classified: 8hr TWA = 10 mg/m<sup>3</sup>

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

### Appropriate engineering controls:

Ensure ventilation is adequate to maintain air concentrations below Workplace Exposure Standards. Keep containers closed when not in use.

If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

### Individual protection measures, such as Personal Protective Equipment (PPE):

The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

OVERALLS, SAFETY SHOES, CHEMICAL GOGGLES, GLOVES, DUST MASK.



Wear overalls, chemical goggles and impervious gloves. Avoid generating and inhaling dusts. If determined by a risk assessment an inhalation risk exists, wear a dust mask/respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	Powder or Fine Granules
<b>Colour:</b>	White to Greyish
<b>Odour:</b>	Odourless
<b>Specific Gravity:</b>	0.348 (water = 1)
<b>Relative Vapour Density (air=1):</b>	Not available
<b>Vapour Pressure (20 °C):</b>	3.7e-10 Pa at 25°C

Product Name: 1,3-DIPHENYLGUANIDINE  
Substance No: 00000053530

Issued: 20/03/2018  
Version: 1

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<b>Flash Point (°C):</b>	Not available
<b>Flammability Limits (%):</b>	Lower (% vol.) = 39 g/m <sup>3</sup> (whirled dust)
<b>Autoignition Temperature (°C):</b>	Not available
<b>Solubility in water (g/L):</b>	0.325 @20°C
<b>Melting Point/Range (°C):</b>	149
<b>Boiling Point/Range (°C):</b>	250
<b>Decomposition Point (°C):</b>	Not available
<b>pH:</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	No information available.
<b>Chemical stability:</b>	Stable under normal conditions of use.
<b>Possibility of hazardous reactions:</b>	Dust explosion hazard.
<b>Conditions to avoid:</b>	Avoid dust generation. Avoid exposure to heat. Avoid exposure to moisture.
<b>Incompatible materials:</b>	Incompatible with oxidising agents, strong acids.
<b>Hazardous decomposition products:</b>	Carbon monoxide. Oxides of nitrogen.

## 11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

<b>Ingestion:</b>	Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation. Causes bitter taste in mouth, makes swallowing painful and reduces acidity of gastric juices.
<b>Eye contact:</b>	An eye irritant.
<b>Skin contact:</b>	Contact with skin will result in irritation.
<b>Inhalation:</b>	Breathing in dust will result in respiratory irritation.
<b>Acute toxicity:</b>	
Oral LD50 (rat):	350-460 mg/kg
Dermal LD50 (rabbit):	>2000 mg/kg
<b>Respiratory or skin sensitisation:</b>	Not a skin sensitiser (guinea pig).
<b>Chronic effects:</b>	
<b>Mutagenicity:</b>	Non-mutagenic in AMES test.
<b>Carcinogenicity:</b>	Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).
<b>Reproductive toxicity:</b>	Suspected of damaging fertility or the unborn child.
<b>Aspiration hazard:</b>	No information available.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Avoid contaminating waterways.
<b>Persistence/degradability:</b>	Not readily biodegradable.
<b>Bioaccumulative potential:</b>	This material shows a low bioaccumulation potential.
<b>Aquatic toxicity:</b>	Toxic to aquatic organisms. May cause long lasting harmful effects to aquatic life.
Log Octanol/Water Partition Coefficient:	2.42 and BCF <20
48hr EC50 (Daphnia magna):	17 mg/L
96hr LC50 (fish):	4.2 mg/L (Pimephales promelas)

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods:

Refer to Waste Management Authority. Dispose of contents and container in accordance with local, regional, national, international regulations.

## 14. TRANSPORT INFORMATION

### Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail; DANGEROUS GOODS.

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<b>UN No:</b>	3077
<b>Transport Hazard Class:</b>	9 Miscellaneous Dangerous Goods
<b>Packing Group:</b>	III
<b>Proper Shipping Name or Technical Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-DIPHENYLGUANIDINE)
<b>Hazchem or Emergency Action Code:</b>	2Z

### Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; DANGEROUS GOODS.

<b>UN No:</b>	3077
<b>Transport Hazard Class:</b>	9 Miscellaneous Dangerous Goods
<b>Packing Group:</b>	III
<b>Proper Shipping Name or Technical Name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (1,3-DIPHENYLGUANIDINE)

**IMDG EMS Fire:** F-A

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**IMDG EMS Spill:** S-F

**Marine Pollutant** Yes

## **Air Transport**

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; DANGEROUS GOODS.

**UN No:** 3077

**Transport Hazard Class:** 9 Miscellaneous Dangerous Goods

**Packing Group:** III

**Proper Shipping Name or Technical Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(1,3-DIPHENYLGUANIDINE)

## **15. REGULATORY INFORMATION**

### **Classification:**

This material is hazardous according to Safe Work Australia; HAZARDOUS CHEMICAL.

### **Classification of the chemical:**

Acute Oral Toxicity - Category 4

Skin Irritation - Category 2

Eye Irritation - Category 2A

Specific target organ toxicity (single exposure) - Category 3

Toxic to Reproduction - Category 2

Acute Aquatic Toxicity - Category 2

Chronic Aquatic Toxicity - Category 2

### **Hazard Statement(s):**

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H361 Suspected of damaging fertility or the unborn child.

H411 Toxic to aquatic life with long lasting effects.

**Poisons Schedule (SUSMP):** None allocated.

This material is listed on the Australian Inventory of Chemical Substances (AICS).

## **16. OTHER INFORMATION**

Supplier Safety Data Sheet; 12/ 2017.

NICNAS IMAP report.

This safety data sheet has been prepared by Ixom Operations Pty Ltd (Toxicology & SDS Services).

### **Reason(s) for Issue:**

First Issue Primary SDS

# Safety Data Sheet



This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Ixom Operations Pty Ltd cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Ixom representative or Ixom Operations Pty Ltd at the contact details on page 1.

Ixom Operations Pty Ltd's responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.